## ISAS 2010 Annual Report









### To Our Reader

This was a year of transitions for the Illinois Transportation Archaeological Research Program (ITARP). In February 2010, ITARP was incorporated into the newly created Illinois State Archaeological Survey (ISAS). This change was more than a new name; it constituted a significant revision of both our mission and our administrative setting within the University. With the change, ISAS officially became a state scientific survey and joined the State Geological Survey, State Water Survey, State Natural History Survey, and the Illinois Sustainable Technology Center in the recently created Institute of Natural Resource Sustainability (INRS)\*. This shift recognized that the central mission of ISAS, while providing critical real-world educational experiences for UI students, was primarily research and service. This recognition makes ISAS a good fit with INRS whose mission is "to provide



objective, integrated scientific research and service . . . that allow citizens and decision-makers to make choices that ensure sustainable economic development, enduring environmental quality, and cultural resource preservation for the people, businesses, and governments of Illinois."

A major theme in ISAS's long history of service to the people of Illinois has been its cooperative efforts with the Illinois Department of Transportation (IDOT) to preserve the state's important archaeological and historic resources while enhancing the public's understanding of Illinois' rich heritage. Archaeology and transportation are part of a strongly interwoven tradition in Illinois. The state professional organization, the Illinois Archaeological Survey (IAS), came into existence under the guidance of Dr. John McGregor in 1956 as a response to the first federal environmental laws calling for the protection of archaeological resources. One of the goals of the new organization was to work with IDOT to protect resources impacted by highway development. From 1957 to 1979, the IAS and IDOT operated a transportation archaeology program under the direction Prof. Charles Bareis at the University of Illinois. In 1980, transportation archaeology was transferred from the IAS to the Department of Anthropology at the University of Illinois and under Prof. Bareis, became the Resource Investigation Program and Resource Management program (RIPARM). RIP, as it was locally known, continued until 1994 when it was reorganized into the Illinois Transportation Archaeological Research Program (ITARP). As ITARP, its activities were greatly expanded in range and scope over the next sixteen years to become recognized as one of the premier transportation archaeology programs in the

ISAS continues the primary goals of those earlier programs to disseminate information to both professional audiences and the public at large. Our annual report is designed to provide an overview of the Survey's yearly activities for IDOT and UIUC administrators, the archaeological community, and the general public. The content of this report reflects the views of the contributors who are responsible for the facts and accuracy of the data presented herein and do not necessarily reflect the official views or policies of IDOT.

While ISAS's broadened mission now encompasses many new areas of preservation, education, and research, transportation archaeology remains at the heart of the Survey. One aspect of our new role has been an increased participation responsibility for administrative and logistical aspects of IDOT's Cultural Resources Unit. The development of the Project Notification System to jointly serve IDOT's coordination needs with Tribal governments is an example of this new involvement. This web-based, electronic data sharing system allows rapid communication to IDOT, ISAS, and Tribes on proposed projects that may be of interest to the tribes. The PNS was recognized by the FHWA as an Exemplary Human Environmental Initiative in 2010. Also as part of the tribal consultation process, ISAS and IDOT initiated the reevaluation of mortuary sites contained in the Illinois Inventory of Burial Sites. Since burial sites are one of the most sensitive resources encountered in cultural resource management, their proper and accurate documentation is extremely important to ensuring they are not damaged or destroyed by transportation projects. ISAS's field inspections have been important in updating and correcting the records on many of these poorly documented sites.

ISAS's and IDOT's historic preservation activities continue to demonstrate the value of such partnerships and their widespread and positive impact on archaeological resources throughout Illinois. ISAS's staff continues to be exemplary in their professionalism, dedication, and commitment to the state's heritage. Thank you.



\*INRS became the Prairie Research Institute in 2011 to better reflect its collective research activities and place it in an appropriate geographical context.



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Printed in the United States of America

#### 2010 Annual Report

Editor: Wendy Smith French

Cover Design: Linda Alexander and Corinne Carlson

Formatting and Layout: Corinne Carlson

Photos: Linda Alexander, Mera Hertel, Marcia Martinho, Val Vallese, Bob Mazrim, Robert Hickson, Richard Fishel, David Nolan, Susan Nolan, Jennifer Edwards, Dan Smith, Rose Smith, Trudi Butler, Jim Pisell, Devan Forney, Betsy Liggett and Tracy Malvestuto (UIUC Facilities and Services), Joe Bartholomew, Sarah Wisseman, Kim Wurl, Pat Durst, Kris Hedman, Steve Kuehn, Jim Mabon (Frederick Seitz Materials Research Laboratory, UIUC), Mark Branstner, Charlie Witty, Brenda Beck, Laura Root, Dale McElrath, Jeff Kruchten, Steve Boles, Wendy French, Mike Lewis, UI News Bureau, Debera Witty, Ian Fricker, Matt Cross, Mike Barnes, Leighann Calentine, Laura Kozuch, Joe DiMaggio, Julie Bukowski, Angie Patton, Sarah Boyer, Jolene Kuehn, Miranda Yancy, and the countless NIFS, WIFS, CIFO, and ABFS staff who leapt into the trenches brandishing a camera when necessity called!!

#### **Acknowledgements**

Thanks to Dr. John Walthall, chief archaeologist at the Illinois Department of Transportation, and the Illinois Department of Transportation for their support of the Illinois State Archaeological Survey's investigations. Dr. Thomas Emerson, ISAS director provided guidance in the preparation of the 2010 annual report, the production of which is the responsibility of the Statewide Archaeological Survey Division, under the direction of Dale McElrath. Thanks to all ISAS staff members who contributed summaries of division activities, continuing surveys, and site investigations, as well as the beautiful photos included in the report.

Information on obtaining additional copies of this report, as well as other ISAS publications, is available at: www.isas.illinois.edu/publications.

### **About the Cover**

Images from left to right

*Top row:* human adorned effigy block pipe, ca. thirteenth century A.D., Orendorf site; flint clay effigy pipe head, ca. twelfth century A.D., East St. Louis site; historic pipe bowl, eighteenth/nineteenth century, Rhoads site; shell maskette, ca. fourteenth century A.D., Anker site (private collection).

*Middle row:* Exchange Avenue effigy figurine, twelfth century A.D., East St. Louis site; human adorned effigy block pipe, ca. thirteenth century A.D., Orendorf site; clay figurine, ca. seventh century A.D.; historic pipe bowl, nineteenth century, Henry Christopher site.

Bottom row: ceramic head adornment on plate, ca. twelfth century A.D., Cahokia Tract 15B; Hopewell figurine head, ca. second century A.D., Dash Reeves site; fluorite figurine head, Edwards County, Illinois; Hopewell ceramic human head, ca. second century A.D., Pool site.

*Photo inside back cover:* Collins Site Complex, Vermilion County.

## ISAS Program Structure

The Illinois State Archaeological Survey conducts archaeological investigations and research throughout Illinois as a collaborative effort of its three divisions—Statewide Survey, Special Projects, and Program Support.

## Statewide Survey Division

The University of Illinois has been conducting the majority of CRM surveys for the Illinois Department of Transportation for over fifty years. Originally, these efforts focused on new highway alignments for the newly developing super highway corridors that crisscrossed Illinois beginning in the 1960s. Over the decades, as our understanding of the distribution of important cultural resources matured and the relevant compliance proce-

dures were implemented in the state, we have expanded such surveys to include any publicly funded highway undertaking that involves the acquisition of substantial new right-of-way. In this regard, we survey road widening, bridge and culvert replacements, dirt borrow locations, and road realignments. In addition to roads, we also survey airports, railways, and bike trails. Annually, we record several hundred historic and prehistoric site locations that are placed in the

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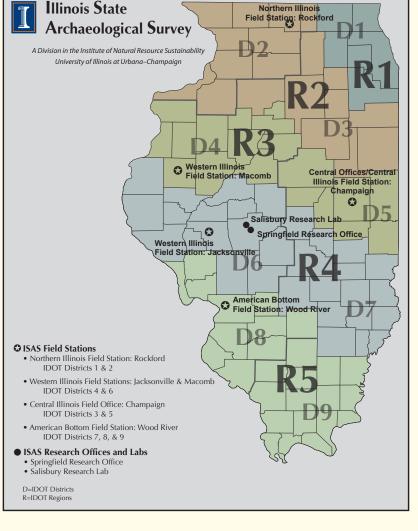
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required. In



Dale McElrath, Statewide Survey Division Coordinator



some cases, however, significant sites are identified that will be impacted; at this point, highly trained and experienced crews undertake the excavation, recordation, analysis, and write up of these sensitive cultural resources. The ISAS Statewide Survey Division, directed by Dale McElrath, performs the majority of these Phase I archaeological surveys, and Phase II and Phase III site investigations undertaken in conjunction with Illinois Department of Transportation projects. A selected sample of our investigations during 2010 include a major survey for the construction of a four-lane interstate highway (US 51) between Vandalia and Centralia in southern Illinois; testing and excavation of several archaeological sites along a ten-mile bike trail near Thorn Creek in northern Illinois; and excavation of several major habitation sites within the new US 67 corridor in western Illinois.

Six regional offices carry out archaeological reconnaissance and any associated site excavations throughout the state: the Northern Illinois Field Station (NIFS) in Rockford handles the 16 counties south of Wisconsin,

including the metropolitan Chicago area; the Central Illinois Field Office (CIFO) in Champaign deals with the 32 east-central Illinois counties between Chicago's collar counties and the Wabash River; the Western Illinois Field Station (WIFS) Macomb and Jacksonville labs manage the 27 westcentral Illinois counties, a region that encompasses the lower Illinois River valley; and the American Bottom Field Station (ABFS) in Wood River is responsible for the 27 counties between the Wabash and Mississippi Rivers, which include the archaeologically complex American Bottom in southwestern Illinois.

## Special Projects Division

The Special Projects Division, under the direction of Dr. Andrew Fortier, typically undertakes long-term projects involving survey, testing, mitigation, analysis, and

report preparation. During 2010, the most intensive project was the Mississippi River Bridge Crossing (MRB), located in the rail yards and old stockyards of National City, just north of East St. Louis in Madison County. This project represents a multi-year excavation of the buried East St. Louis Mound Center, the second largest Mississippian town and mound center in North America. To date, excavations have been conducted on more than 1,500 archaeological fea-

tures from the Mississippian period. Crew size in 2010 has ranged from 20–80 people distributed over a mile-long proposed highway corridor that extends from existing I-55/70 to the proposed



Andrew Fortier, Special Projects Coordinator

bridge crossing location. Excavations are expected to end during the 2012 field season.

Ongoing analysis and write-up of the FAP 310 project was also conducted at the central ISAS office in Champaign. FAP 310 is a proposed highway corridor extending from existing I-270 to Godfrey in Madison County. (The Western Illinois Field Station is investigating the portion of FAP 310 that extends northward from the Madison County line.) Over 150 archaeological sites have been identified and tested along this corridor since 1990. Work on FAP 310 sites in 2010 included the ceramic and lithic analyses and partial write-up of the Reilley, Bay Pony, and Husted sites, large Late Woodland settlements located in the Vaughn Branch locality of the uplands. In addition, Archaeological Testing Short Reports were completed on nine smaller floodplain sites along the FAP 310 corridor. Excavation of these sites was concluded over 10 years ago.

Special projects personnel have also been involved in various research projects and outreach activities. One of the longer, on-going special projects is dog coprolite research based on 150 dog feces samples excavated from the Janey B. Goode site in conjunction with the MRB. This research includes researchers from ATAM (SEM), the Department of Anthropology (dog DNA), the Frederick Seitz Materials Research Laboratory (SEM), ISAS (macro-fauna and processing), and the Institute for Genomic Biology (bacterial DNA), all located at the University of Illinois at Urbana-Champaign.

### **Program Support Division**

The Program Support Division is responsible for program administration, specialist analyses, and report preparation and publication. Division staff include paleoethnobotanists, a faunal analyst, a historical archaeologist, physical anthropologists, a GIS/Cartography specialist, curation specialists, a network administrator, desktop publishers, a graphic designer/illustrator/ photographer, and a videographer based in the Champaign main office and satellite Neil Street Lab; a public outreach coordinator and senior research editor work in the Salisbury Research Lab and Springfield Research Office, respectively. The Program Support Division provides archaeobotanical, bioarachaeological, and faunal analysis; historical research; digital cartographic production and GIS analysis; curation and collections risk assessments; and manu-



Janice Pankey and Cathy Cunningham at the helm, ISAS Champaign office.

script production, which includes editing, formatting, graphic design and artwork for ISAS publication series and public displays and exhibits. Floatation labs for processing soils and feature fills from archaeological sites are located in Macomb and Godfrey.

The various ISAS divisions also conduct long-term, large-scale, grant-funded archaeological research projects and selected private work that provides funding and research opportunities for UIUC students and other researchers.

### Paleoethnobotanical Laboratory

The Paleoethnobotany Laboratory is located in the main offices of the Illinois

State Archaeological Survey, on the University of Illinois campus in Champaign. The Lab is under the directorship of Mary Simon, assisted by two research archaeobotanists Mary King, working full time, and Leighann Calentine, working part time. Professional archaeobotanist Kathryn Parker is employed on a contractual basis. The analysis of plant remains from archaeological sites of both prehistoric and historic affiliation provides the foundation for our research. Identification and quantification of plant remains is important in and of itself because it gives us direct evidence for use of certain plants by people in the past. The information is even more important when integrated into the entire archaeological data set, in the attempt further our understanding of the complex inter-relationships between humans and plants, and societies as a whole.

Equally important to analysis of macrobotanical remains is disseminating the results of these analyses. Regardless of site size or the nature of remains, a written summary or report is prepared for all analyzed assemblages. The type of report submitted depends on a number of factors, including site complexity and extent; number of samples or features excavated; cultural affiliation; whether or not further work is to be conducted; and in some instances time constraints. At minimum, publication involves preparation of a summary table for inclusion in the final testing report, which is usually an Archaeological Testing Short Report (ATSR). These reports are available online so no longer languish in the inaccessible "grey literature." For larger or more complex sites, a more detailed, written report or appendix is prepared. These can be presented as part of an ATSR or appear in a published volume. Very large sites are fully documented in report chapters in one of the ISAS publication series. The results of analyses may also be published in an appropriate journal, among which are Illinois Archaeology and Midcontinental Journal of Archaeology.

Macrobotanical data sets also provide the raw data for use in individual research



Examination of archaeobotanical sample.

# Cord Impressions on Late Woodland Pottery Experimental Archaeology

In October, a group of ISAS archaeologists held a workshop during which they attempted to replicate typical cordmarked pottery designs found on Late Woodland ceramics from southwestern Illinois. Uniform cordmark orientations on the upper exterior portions of Patrick phase jars prompted speculation about tools and techniques used to achieve such consistency, especially on curved vessel surfaces. The workshop took place in Dr. Sarah Wissman's studio space. Attendees included ISAS staff members Mary Simon, Sarah Wisseman, Leighann Calentine, Mary King, and Alexey Zelin, research assistant Carol Richards (Illinois



State University graduate student), and UIUC graduate student Tiequan Zho.

Under the direction of Dr. Wisseman, who has experimented with old and new world ceramic manufacturing and decorating techniques, workshop participants prepared ceramic pieces or small vessels out of commercial clay. They used paddles and sticks of different shapes and sizes, wrapped in cords of various thicknesses to produce impressions on the damp clay. The experiments showed that

uniform effects were most easily achieved by rolling a narrow cord-wrapped stick or twig on the exterior surface of a pot. This project grew out of Richard's interest in prehistoric textiles and her collaboration with Zelin, a researcher specializing in Late Woodland ceramics. While simple in premise, these types of projects are interesting because of the insight they provide into understanding production technologies and the skills of prehistoric artisans.







projects that center around people and plants in the past. For example, the study of textiles made of plant fibers, and the uses these textiles are put to, are an ongoing area of research in the laboratory. Other research may focus on specific issues of plant domestication, food residue analysis, or construction technology and materials. All have been or will be the subject of study.

### **Laboratory Methods**

Collection, processing, and analysis of botanical remains from archaeological sites follow standardized procedures. Most remains come from floatation samples, which are soil samples of known volume, systematically collected from well-defined cultural contexts. These samples are processed using water floatation to extract carbonized plant remains. In 2010, float processing took place at two ancillary float labs. One is located near Alton, Illinois and operates under the direction of Lois DuMey; one

is located in Macomb and operates under the direction of Susan Nolan. Processed and dried samples are transported to the main lab in Champaign for analysis. This is conducted by first passing samples through a 2 mm mesh screen. All botanical materials retained by the screen are identified and quantified by material class. The fraction of the sample that passes through the screen is scanned under low magnification and seeds, or other informative items, are removed, identified, and counted. Our staff also analyzes the usually larger samples of carbonized plant materials that have been collected separately during excavations. These "hand-collected charcoal samples" include many different types of materials, from large pieces of wood, through caches of nuts and even burned textile pieces. The majority of our samples are carbonized residues from open-air sites, but we also provide analysis for occasional waterlogged or desiccated specimens from secure contexts.

The laboratory is equipped with three stereo-zoommicroscopes that can be used to magnify items up to 60X. One microscope is equipped with a digital camera for low magnification photography; it is also equipped with an optical micrometer for measuring sizes of items. Weights are determined using digital table scales weighing to the .01 glevel.

### **Overview of Archaeobotanical Analysis**

In 2010, ISAS archaeobotanists analyzed a total of 2,362 floatation samples from 15 sites (Table 1). A large number of these were from the extensive Patrick phase component at the Reilley site in the American Bottom region. Analysis of samples from that site is ongoing. In addition to floatation samples, we also analyzed 144 hand collected charcoal samples. Most were hand collected "logs" from burned structures excavated at Settlement D at the Orendorf site.

A summary of sites for which reports were completed in 2010 is presented in Table



2. Results of analysis from five sites will be published in the Archaeological Testing Short Report series (ATSRs) and should be available in 2011. This format is typically used for small sites with few features and for which no further work is recommended.

Report chapters were completed for the Sartorious and Sartorial Splendor sites. These reports were in production as of the end of 2010. The results of analyses were summarized in the 2009 ISAS Annual Report. Short chapters were also completed for the Dobey and the Thomas East sites.

### **Analysis Highlights**

As shown in Tables 1 and 2, ISAS archaeobotanists analyzed samples and prepared reports for sites located across western and northern Illinois and dating from the Archaic period to historic times. Highlights of that research follow.

### Sauget Industrial Park, Southwestern Illinois

The Sauget Industrial Park (SIP) project is located in St. Clair County. Analysis was conducted for five sites located in conjunction with the SIP survey. In all cases the botanical data has been tabulated and reports are in progress. The results are summarized as follows:

The Mousette-Goose site (11MS459). This is a Stirling or Moorehead phase possible farmstead with one wall trench structure and associated pits. Plant materials were sparse in six analyzed floatation samples, consisting of a few wood fragments (walnut or butternut), a sedge seed, and scattered small maize fragments.

The Goose Ditch site (11S944). Components are primarily Stirling and Moorehead phase. Approximately 50 floatation samples were analyzed as well as hand-collected plant specimens. A highly diverse plant assemblage also characterized by high wood density and approximately 40 different seed taxa, including all the typical Eastern Complex cultigens, as well as more unusual bottle gourd, was identified. Maize was recovered from most features.

The Fingers site (11S333). This multicomponent site includes a Moorehead phase community with a large midden area, as well as a Late Woodland habitation. Approximately 275 floatation samples from the Mississippian component and 15 from the Late Woodland component were analyzed. The Mississippian assemblage exhibited high taxonomic diversity, with red cedar among the wood types identified, and a minimum of 37 seed taxa. Maize was ubiquitous in Mississippian samples and was

also recovered from Late Woodland pits.

The Baby Moon site (11S334). The site is a late Stirling/early Moorehead habitation. Eleven floatation samples from a wall trench structure and pits were analyzed along with hand-collected specimens. Frequency and ubiquity of hickory nutshell, seeds, grass stems, and maize were very low. Red cedar was present among the varied wood taxa identified. The seed assemblage was unusual in being dominated by diverse uncultivated (wild) grasses. Although these may have occurred naturally in the local habitat, it is likely that the seeds reflect grass culms used in thatching and other technologies.

The Curtiss Steinberg site (11S823). The site dates to the Mississippian period, with possible Lohmann, Stirling, and Early Moorehead components. Approximately 60 floatation samples were analyzed as well as hand-collected botanical specimens. Taxonomic diversity and density of all wood, nutshell, and seeds appeared to be low regardless of possible component associations.

### Weaver Phase. Western Illinois

Botanical analysis and report compilation was conducted for a number of Weaver phase sites located in the uplands of western Illinois that date to about 300-500 A.D.

The Sartorious (11HA360) and Sartorial Splendor (11HA949) sites. The samples from these two sites were analyzed in 2009, and the chapters for the site report volume were completed in 2010. This volume was

in press at the end of the year. Both sites comprise a series of household occupations distributed contiguously across an upland ridge over-looking the La Moine River. Botanicals at Sartorious were plentiful and include seeds from all members of the Eastern Agricultural Complex, reflecting the importance of horticulture in the Weaver phase economy. Although the site is similar in spatial configuration, plant remains were fewer and less diverse at Sartorious Splendor. Occupations may represent seasonal re-use of this terrace or a continued occupation with functionally different areas, each of which has different implications for understanding settlement.

The Dobey site (11SC1134). This site is located on a high, terrace remnant in Schuyler County, Illinois near the confluence of Flower Creek and the La Moine River. Materials from the 27 features were similar in type and proportion to the assemblage from the Sartorious site. The relatively large number of small grains again reflects the importance of native grain cultivation, especially goosefoot and little barley, at this time.

The White Bend site (11HA949). Analysis of samples from this site is over half complete. This site contains several hundred features, and samples have produced a large and diverse macro-botanical assemblage. Native grains, particularly goosefoot and little barely, are abundant. We have also identified an unusually large number of sunflower seeds, which are large enough to have come from true domesticated plants. Several features contain masses of carbonized nutmeats, most of which are acorns. The results of that work will be published in a 2010 report volume.



Table 1. Summary of macrobotanical analyses for 2010.

Site Number	Site Name	Number of Features/ Hand Units Analyzed	Number of Samples Analyzed	Volume (liters)	Number of Hand Collected Samples Analyzed	Comment	Status Archaeobotanical Analysis as of December 31, 2010
F1284	Orendorf	98	178	Unknown	94	Mississippian	Initial Analyses Complete
HA706	Thomas East	1	1	_	_	Archaic	Analysis Complete
HA938	White Bend	203	241	2,410	_	Late Woodland	In Progress
HE451	Inghram West	1	2	20	_	Archaic and Woodland	Analysis Complete
JD735	N/A	9	38	342	_	Woodland	Analysis Complete
K971	N/A	1	3	31	_	Late Woodland	Analysis Complete
MC122	N/A	5	9	78	_	Proto-historic	Analysis Complete
MH495	Bottlemy	10	17	60	_	Late Woodland	Analysis Complete
MS108	Linkemann	18	29	277	_	Mississippian	Analysis Complete
MS27	Reilley	487	1,121	10,909	_	Late Woodland	In Progress
S333	Fingers	236	456	2,139	_	Late Woodland / Mississippian	Analysis Complete
S334	Baby Moon	12	33	328	_	Mississippian	Analysis Complete
S459	Mousette Goose	8	12	115	_	Mississippian	Analysis Complete
S823	Curtiss Steinberg Rd.	73	142	1,137	28	Mississippian	Analysis Complete
S944	Goose Ditch	46	80	785	22	Mississippian	Analysis Complete
Total		1,208	2,362	18,631	144		

Table 2. Summary of completed reports for 2010.

Site Number	Site Name	Component	Type of Archaeobotanical Report Completed	Author/Analyst	Final Status for Entire Report
F1284	Orendorf	Mississippian	Paper at SAA's	Mary Simon	Project on hold
HE451	Inghram West	Archaic/Late Woodland	No tables, text only	Leighann Calentine	ATSR in progress
HA360	Sartorious	Early Late Woodland	Report chapter	Leighann Calentine	Report complete, in Production
HA706	Thomas East	Archaic	Short report	Leighann Calentine	ATSR complete
HA949	Sartorial Splendor	Early Late Woodland	Report chapter	Leighann Calentine	Report complete, in Production
JD735	N/A	Woodland	Summary tables for ATSR	Mary King	ATSR in progress
K971	N/A	Late Woodland	Summary tables for ATSR	Mary King	ATSR in progress
MC122	N/A	Proto-historic	Summary tables for article	Mary Simon	Article for Illinois Archaeology, in press
MH495	Bottlemy	Emergent Late Woodland	Summary tables for ATSR	Mary King	ATSR in progress
SC1134	Dobey	Early Late Woodland and Historic	Report chapter	Mary King	Final report complete

Table 3. Summary of radiocarbon samples submitted for 2010.

Site Number	Site Name	Number Standard Dates	Number AMS Dates	Comment
MH495	Bottlemy	1	1	
SC1134	Dobey	3	_	
MO305	Washausen	1	_	
S1232	Janey B. Goode	_	4	for Kris Hedman
HA938	White Bend	7	_	
MS2	Cahokia Tract 15B	_	2	for Kris Hedman
MS2-1	Cahokia Gems	_	2	for Kris Hedman
	Albany Mounds	_	2	for Dana Beehr dissertation
S34-7	Cahokia Fingerhut Cemetery	_	3	for Kris Hedman
Ohio Hopewell site	Hopewell Mound	_	1	for Dana Beehr dissertation
Ohio Hopewell site	Mound City	<u> </u>	1	for Dana Beehr dissertation
	Total	12	16	

The Orendorf site (11F1284). One hundred seventy eight floatation samples and 94 hand-collected samples from the 1970s excavations at the Orendorf site (11F1284) site were analyzed in 2010. Larry Conrad (Western Illinois University in Macomb) provided these samples. The site is located on a blufftop on the west side of the Illinois River, above an expansive section of bottomland and Rice Lake. It includes five village areas and associated mounds. Settlement D, which was the focus this research, is a large, fortified village located at the southern end of the complex. The village dates to

the middle Mississippian period, or about A.D. 1200–1250. It is of particular interest not only because our understanding of Mississippian plant use is limited, but also because Settlement D was catastrophically burned and the village deserted sometime around A.D. 1250, probably during warfare. In addition to more general data reflecting plant use, burned structures also provided direct evidence of construction material usage.

Most of the material from the floats was wood and corn, including a few large cob fragments. Indications of native plant cultivation were surprisingly limited. A few sumpweed and sunflower seeds were identified, as were grains of all four starchy seeded plants, chenopod, erect knotweed, maygrass, and little barley, but counts were very low. The excellent preservation afforded by burning is evident in the recovery of one sumac fruit piece, with seeds still embedded.

Charred wood fragments, presumed to be structural timbers that burned when the village was razed, were identified from four structures. The majority are oak, hickory, and willow. The estimated original circumferences range from about

1.5 cm up to 6 cm. With few exceptions (e.g., one red oak wall post excavated in situ) original function cannot be determined; materials are probably representative of both roof and wall elements.

The Orendorf site samples provide a good example of how much we can learn by revisiting old, unanalyzed collections. Though many sites are known, we have limited Mississippian botanical data from this region. A picture is emerging of strong reliance on corn and lesser time investment in native grain cultivation than evidenced by contemporary assemblages in the American Bottom to the south. The extent to which we can document regional variations in foodways remains one area of study to be further explored.

Work on Orendorf site samples has been suspended. The results of the 2010 analyses were presented in a paper given at the 75th Annual SAA conference, St. Louis Missouri, April 14–18 2010.

### Overview of Additional Research Projects

The results of the study of uncarbonized squash (*Cucurbita pepo L.*) seed coats from the Hoxie Farm site (11CK4) was completed in 2010. These results were detailed in an

article accepted for publication the *Journal* of Archaeological Science and should be available in 2011. Size variability among seeds suggests that at least two varieties of squash are represented: the native squash *C. pepo* ssp. ovifera and the *Mexican* domesticate ssp. pepo. The potential for long-term prehistoric cultivation of two distinct lineages in the Midwest, and problems inherent in the scenario, are discussed.

Research in prehistoric textiles and cordage are an ongoing part of our work. In fall of 2010, we began working with Carol Richards, a spinner, weaver, and graduate student at Illinois State University (ISU), on issues of cordage production technology and cordage use. This work has included independent reading, discussion, demonstrations, and simple experiments in thigh spinning and spinning with a whorl. Paleoethnobotany lab staff also conducted a small workshop, under the direction of Dr. Sarah Wissmann, experimenting with cordage application techniques for decorating pottery.

In addition to the above-mentioned compliance reports and research studies, work on a number of publications for academic audiences and the general public alike are in progress. These include contributions to the forthcoming book *The Archaeology of Illinois: A Legacy of People, Land, and Technology,* 

a collaborative project between ISAS staff, headed by Dale McElrath, and Dr. Robert Reber, professor emeritus, ACES, UIUC.

### Ancient Technologies and Archaeological Materials (ATAM)

The Program on Ancient Technologies and Archaeological Materials (ATAM) is an archaeological science program that is a division of ISAS. It is funded primarily by UIUC and directed by Dr. Sarah Wisseman.

For over 30 years, the ATAM program has been facilitating collaborations between archaeologists, museum curators, and scientists to study ancient artifacts using modern instrumentation. ATAM also engages in experimental archaeology, including the replication of artifacts such as stone tools and cooking vessels to better understand how they were made and used.

During 2010, ATAM's focus was on pipestone research, organizing ceramic and instrument workshops and a regional conference, and outreach activities on campus and in the local community.

Research activities included compiling a major article on the geology of pipestones (submitted to the international journal *Geoarchaeology*) and reports on our pipestone sourcing using PIMA and XRD for

## ISAS Hosts X-Ray Fluorescence Workshop

The portable XRF workshop, organized by Sarah Wisseman (ISAS/ATAM), was an in-depth research instrument demonstration. On November 4–5, 2010, Dr. Bruce Kaiser from Bruker Elemental offered a group of researchers from ISAS, ISGS, and UIUC Anthropology a 1½ day workshop on the physics of X-Ray Fluorescence (XRF) and practical training on a Bruker portable XRF instrument (www.bruker-axs.com/traceriiiv.html).

"We all came away with invaluable knowledge of not only the instrument and its capabilities, but also the physics and chemistry of X-Ray Fluorescence itself. I will be using a similar instrument for my M.A. project, a sourcing study of Mississippian axe heads to the St. Francois Mountains in southeastern Missouri, " said Amanda Butler, workshop participant.

The instrument was on loan to the Institute of Natural Resource Sustainability (INRS) for two weeks, allowing INRS researchers from several divisions to collect data on stone and clay samples. Some of this data was then incorporated into a National Science Foundation grant filed by Wisseman and several ISAS and ISGS colleagues on December 1, 2010. If successful, the one-year grant will begin July 1, 2011 and allow for the purchase of a Bruker instrument.

For over fifteen years, ISAS archaeologists have collaborated with ISGS geologists to source Middle Woodland stone pipes and Mississippian figurines using x-ray diffraction (XRD) and a Portable Infrared Mineral Analyzer (PIMA). Although substantial progress has been made on characterizing pipestones from several quarries in Illinois, Missouri, Wisconsin, Ohio, and Minnesota, questions remain that can only be answered by employing an additional technique. Unlike XRD and PIMA, which provide information on mineral composition and crystalline structures, XRF yields chemical data (identifications and amounts of major, minor, and trace elements) that will help discriminate between similar pipestones and artifacts that have been burned or oxidized. XRF has advantages over other multi-elemental techniques: it is completely non-destructive to artifacts, and multiple samples can be analyzed very quickly.

"Although XRF is available in UIUC campus laboratories, we needed a portable instrument for field and collection facilities," said Wisseman



6



# SOURCING MIDWESTERN PIPESTONES WITH A PORTABLE SPECTROMETER



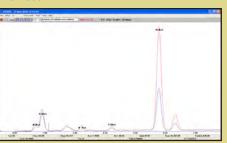
Since the mid 1990s, a team of archaeologists and geologists from ISAS, UIUC's Anthropology, department, ATAM, and the Illinois State Geological Survey (ISGS) has conducted analyses to determine the sources of raw material used in Hopewellian pipes and Mississippian figurines using a Portable Infrared Mineral Analyzer (PIMA) from Integrated Spectronics, Australia. The PIMA provides qualitative identification of the minerals that complements and supplements what can be learned from other techniques such as X-ray diffraction (XRD).

Our team has collected data on hundreds of artifacts and characterized pipestone sources in Illinois, Ohio, Minnesota, Wisconsin, Kansas, and Missouri. However, since pipestones contain similar or identical minerals in different proportions, distinguishing between geological sources is easier when mineralogical data is combined with



elemental data, especially from trace elements. X-ray Fluorescence (XRF) produces chemical fingerprints of over 80 major, minor and trace elements that that can be used to complement the mineral fingerprints provided by XRD and PIMA. Over the past year, we have explored adding a portable (XRF) instrument to our analytical arsenal. Several of us participated in a workshop on the physics of XRF in November 2010, and collected data using a Bruker Tracer III-SD instrument. The team plans to purchase this instrument in 2011 and has filed a National Science Foundation grant for this purpose.

Here is an example of how XRF provides useful information:



Baraboo WI (red) and MN catlinite (blue).

The purplish-red pipestone from Baraboo county in southern Wisconsin displays more iron (Fe) than a catlinite specimen from Pipestone National Monument in Minnesota. Other XRF readings show that Baraboo is also higher in copper (Cu) than MN.

the Lincoln, Nebraska Midwest Archaeology Center and for steatite scholars in Alabama and Georgia. These reports fed into a new National Science Foundation grant that was submitted on December 1, 2010, for a one-year project beginning July

1, 2011. If successful, this grant will allow us to purchase a Bruker portable X-ray fluorescence instrument that will refine our characterizations of visually similar pipestones and help solve our problems with burnt and weathered artifacts.

Plans were finalized for a new mummy project, building on the very successful interdisciplinary effort of the early 1990s. As part of the centennial celebrations for the Spurlock Museum, ATAM will participate in a new CT scan of the museum's Egyptian mummy at Carle Clinic in March 2011. Results will be studied by medical specialists, Egyptologists, and physical anthropologists and presented at World Mummy Congress in San Diego in June 2011 and at two events open to the public in November 2011.

### Bioarchaeology/Osteology

The Bioarchaeology/Osteology program of ISAS is under the direction of Dr. Kristin M. Hedman and Eve A. Hargrave, assisted by Julie Bukowski (physical anthropologist, ABFS) and Mary Hynes (Bioarchaeology Curation Specialist). Laboratory assistants this year included John Dimaggio, Aimee Carbaugh, Matthew Fort, and Trevor Staubli. Maggie Rallo provided field and lab assistance for the ABFS. The primary mission of the ISAS Bioarchaeology program is to perform the responsibilities outlined in the Human Skeletal Remains Protection Act (20 ILCS 3440 et seq.). These duties include the excavation, technical analysis, and reporting of human remains falling under the program's responsibilities. In addition, we are involved in collaborative research projects both within ISAS/ UIUC and with researchers at other institutions. Results of these projects are presented at professional conferences and in peer reviewed journals. Public outreach is encouraged and program physical anthropologists frequently give presentations to schools, clubs, various archaeological societies, and other general public groups.

### **Field Projects**

The East St. Louis site (11S706). Phase III excavations continued at the East St. Louis site (11S706) for the Mississippi River Bridge (MRB) project. Human remains were recovered from features in Tracts 4, 5, and 6 within the

project area. There is wide diversity in burial contexts reflected and evidence that post-mortem processing of remains was a component of mortuary practice at this site. The excavation and analysis of human remains is conducted under the FHWA

## Bioarchaology/Osteology Database

The abundance and variety of data being collected by ISAS bioarchaeologists has prompted an expansion of the ISAS Bioarchaeology/Osteology Database by Mary Hynes, ISAS Bioarchaeology Collections Specialist. The initial step in this process was the development the Bioarchaeology Material Tracking database in 2009 that allows for more efficient tracking of material location and project status for multiple sites between labs and researchers. In 2010 the focus was to integrate electronic files, scanned documents including field notes, and digital photographs into this system. The ultimate goal is to create a relational database that will bring together archaeological and osteological information to provide a fully comprehensive tool for managing and analyzing the data derived from human remains as well as providing a backup for the traditional paper file system. Modification of the ISAS Osteology database is an ongoing process to increase efficiency of data collection and information storage. These implementations have greatly facilitated the management of paper, electronic, and photographic records related to skeletal collections, as well as the organization and processing of skeletal materials, and the production of ISAS Skeletal Reports, all of which enable ISAS Bioarchaeology staff to more efficiently complete analyses, conduct research, and complete reports and publications.

To date we have several stand-alone Filemaker databases in use. This is the first phase of this project. These are designed to facilitate the entry of information directly from standard ISAS field or lab documents, and to create digital files and clean paper print-out copies of documentation required for material transfers and report production. In many cases drop-down menus are used to increase ease of data entry, encourage consistency in descriptions, and avoid typographical errors. Data can be manipulated within Filemaker or exported into other programs such as Excel for manipulation and analysis. Our ultimate objective is to relate these individual databases to one another, reducing the input of redundant site and provenience information and potential input errors, and ensure that updates or changes to one file are reflected in all related files. The relational aspect of the database will be completed in 2011, once the individual databases are fully tested, modified, and finalized using real data input situations.

The new ISAS Bioarchaeology Osteology database will encompass four primary data categories:

- site summary
- skeletal analysis
- · bone/dental sampling
- · imagery

The Site Summary area will contain general site information and provides the primary data input location from which subsequent databases will retrieve contextual information. Site summary

information includes the site name and number, project name and numbers, permit information, dates of excavation, name of project directors or institution, information on the nature of the site and excavation history, the minimum number of individuals and context of human remains, status of bioarchaeological analysis, presence or absence of any associated artifacts, and summary of documentation available. Much of the information from our current Bioarchaeology Material Tracking database will be integrated into this section. The Material Tracking database will continue to track the location and status of materials in our lab, and will also allow us to easily access information on the report and transfer history of collections no longer in our care (e.g., transferred or repatriated collections).

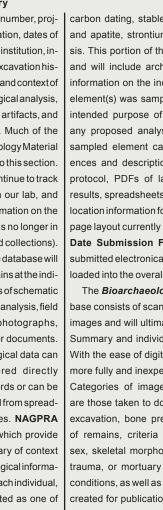
The Skeletal Analysis portion of the database will provide information about skeletal remains at the individual level and include scanned images of schematic skeletal/dental forms created during lab analysis, field

> maps, photographs, and other documents. Osteological data can be entered directly into records or can be imported from spreadsheet files. NAGPRA forms, which provide a summary of context and biological information for each individual are created as one of the field layout options.

Sampling includes information on bone and tooth samples collected for radiocarbon dating, stable isotope analysis of collagen and apatite, strontium analysis, and aDNA analysis. This portion of the database is in development and will include archaeological and demographic information on the individual, information on which element(s) was sampled, how it was sampled, the intended purpose of sampling, and the status of any proposed analyses. Scanned images of the sampled element can be included, as can references and descriptions of analysis methodology/ protocol, PDFs of lab notebooks and published results, spreadsheets of resulting data, and storage location information for any sample remainders. One page layout currently in use creates a Radiocarbon Date Submission Form that can be saved and submitted electronically to ISGS and can also be uploaded into the overall ISAS Radiocarbon database.

The Bioarchaeology Image portion of the database consists of scanned slides, photos, and digital images and will ultimately be linked to both the Site Summary and individual Skeletal Analysis entries. With the ease of digital photography we are able to more fully and inexpensively document collections. Categories of images included in this database are those taken to documented stages of pedestal excavation, bone preservation and completeness of remains, criteria used in estimating age and sex, skeletal morphology, evidence for pathology, trauma, or mortuary processing, and taphonomic conditions, as well as field photographs, and images created for publication or presentation. Descriptive text enables researchers to search for specific images or categories of images, such as those depicting trauma or disease. These images will allow future researchers to reevaluate current interpretations and pursue additional research questions.





Memorandum of Agreement for the MRB project and the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440, 17 IAC 4170). Under this agreement, all human remains are transferred to the Illinois State Museum (ISM) in Springfield upon completion of the analysis and Skeletal Report.

In the Second Street Tract (11S706/6), remains of five adult individuals (3 males, 2 indeterminate) were identified in four Stirling phase features. Two individuals were identified in mortuary pits, and an isolated dental arcade was recovered from the basin of a wall-trench structure. An interior pit associated with this structure contained the primary burials of two adult males. One individual was positioned with the torso reclined against the pit wall. The second individual is incomplete, but the cranium is present and exhibits a culturally modified tooth. The upper right central incisor of this individual has a horizontal line incised across the labial surface of the tooth.

Four primary burials (1 young adult male, 2 adults and 1 subadult of undetermined sex) were excavated in the Stockyard Tract (11S706/5). These included an extended burial of an adult in the house basin of a Mississippian wall-trench structure, and three extended burials along the north, west, and southern walls of a second structure. Isolated remains were recovered from additional features.

Excavations are continuing in the National City Tract (11S706/4), where human remains have been recovered from various contexts. Features in this area are affiliated with the Terminal Late Woodland and early Mississippian components. Isolated

There is a growing number of culturally modified teeth from sites excavated in the American Bottom. Three culturally modified incisors have been recovered from the East St. Louis site since 2009. The tooth modifications were made during life and includeocclusal notching, labial incisions, or a combination of both; they are common decorative types seen in the region. Only a few ex-

in the region. Only a few examples of modified teeth have been documented in North America, and most are from the American Bottom and west-central Illinois. All securely dated examples of modified teeth in the American Bottom are from the Mississippian period.



Physical anthropologist and crew photograph feature, East St. Louis site, St. Clair County.

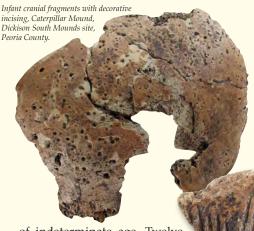
remains were identified in multiple features, and disarticulated and incomplete individuals were recovered from structure and pit contexts. Three extended, primary burials of adult individuals were also excavated (1 male, 1 female, 1 indeterminate). The female exhibits a healed rib fracture, and a calcified cyst was recovered from the torso region. Two bundle burials were encountered in the A-horizon; one contained a culturally modified upper incisor. Modification consists of a small notch on the occlusal surface and multiple incised lines on the labial surface.

### **Skeletal Analyses and Reports**

Osteological analyses were completed for several IDOT-related sites, as well as for collections transferred, donated, or on loan to ISAS for research purposes. These include East St. Louis (11S706/4, 5, 6); Fingers South (11S333south); Hofstetter (11S693); Cahokia SubMound 51 (11S34/2), Fingerhut (11S34/7), Gems (11MS2/1), Mounds 19, 20, 21 (11MS2/5), Powell Mound (11MS2/1) and Sawmill Mound (11MS2/7); and Pittsburg Lake (11S440). Osteological analyses are in progress for Janey B. Goode (11S1232), Brugger Mound (11JD84), Neteler Mound (11MN2) of the Havana Mound Group, Fisher Mounds 5, 6, and

7 (11WI5), Guy Smith Farm (11J49), and several small Cahokia-related collections.

Skeletal analysis was completed on the material from the three Dickison South Mounds (11P787)—Caterpillar, Renchville, and McDougal-Hartmann, in the central Illinois River Valley. The mounds, fully excavated by the University of Illinois in 1957, were identified as Middle Woodland based on cultural material and burial treatment. The mounds were constructed above sub-floor log tombs that contained extended and bundled human burials. Twenty-nine individuals and isolated remains of at least another 16 individuals were identified during analysis. Dental disease and various skeletal pathologies, particularly infection and degenerative joint disease, are prevalent in the population. Notable pathologies include erosive arthritis in the wrists of an older adult female from the Renchville Mound, and lytic lesions on the ectocranial surface of an infant from the Caterpillar Mound. This infant also had a cranial fragment with decorative incisions. Putrefaction staining, a watermark band on the endocranial surface caused by decaying soft tissue, occurs on a few crania from the Caterpillar Mound . The population consists of 24 adults, 4 juveniles, and one individual



of indeterminate age. Twelve adult individuals were identified as 4 males, 6 females, and 2 possible females. Stable isotope analysis of 17 individuals from the Dickison South Mound group indicate, as expected, that maize was not a measurable dietary component for this Middle Woodland population. Interestingly, results for two individuals interred within a pit feature within the Renchville Mound suggest maize may have been a part of their diet, although probably consumed infrequently and in small amounts. We are awaiting results of enamel apatite analysis to determine if this finding is supported or if preservation issues might explain these results. Collagen from six individuals was submitted for AMS dating. These individuals represent central tomb burials from Caterpillar and Renchville Mounds, and pit burials from Renchville Mound. Results are anticipated in early 2011.

The ISAS Skeletal Reports series, established in 2009, was designed to document

human remains from unregistered graves in compliance with the Human Skeletal Remains Protection Act (20 ILCS 3440) with limited distribution. Burial excavations, skeletal analyses, and report completions are conducted in accordance with HSRPA (20 ILCS 3440 et seq.). Reports were completed and distributed during 2010 for East St. Louis Tract 5 F588 and F622 (115706/5),

Souffle de Caverne (11R579), and Centreville (11S332). Skeletal Report drafts are completed and pending publication for East St. Louis Tract 6 (11S706/6), Hofstetter (11S693), Reilley (11MS27), Trotier (11S861), Tena Dey

(11MS769), Tucker (11S742), Grossman (11S1131), Booker T. Washington/Stookey (11S19/20), and Drda (11S32). Upon completion of each report, all human remains and copies of associated documentation for a site are transferred to the Illinois State Museum (ISM) in Springfield, in accordance with the HSRPA and programmatic agreements between IDOT, ISAS, and ISM. In 2010, human remains from 13 sites were transferred by ISAS to the Illinois State Museum (ISM) and several additional sites are prepared for transfer in early 2011. Remains from eight sites were returned to the Department of Anthropology, University of Illinois at Urbana-Champaign.

### **Current Research**

Over the last two decades, ISAS bioarchaeologists have conducted systematic osteological examinations, stable isotopic

analyses and AMS radiocarbon dating of prehistoric human remains from Illinois. An important focus of these studies has been the role of maize in the diets of late prehistoric populations in this region. Osteological and bone chemistry research continues to show that although maize consumption was significant for late prehistoric Illinois Mississippian populations, there were chronological, regional, ethnic, sexand status-based differences in diet, both in the relative importance of maize and in the quality and quantity of protein consumed. ISAS researchers continue to explore the cultural and biological ramifications of such variation. In addition to stable isotope and AMS data, we have begun to explore the potential application of strontium isotopes and ancient DNA (aDNA) analyses to questions of population movement and interaction.

In 2009, we began work on two large research projects that involve the osteological and molecular level analysis of skeletal remains from Middle Woodland and Mississippian contexts. These collections are on loan from the Department of Anthropology, UIUC and the Illinois State Museum, Springfield. The Middle Woodland sites included elaborate mound inhumations, as well as central tomb primary and secondary burials, while the Mississippian Cahokia sites include mound and non-mound burials representing individuals from diverse social positions in Cahokian society. ISAS was granted permission from the lending institutions to collect bone and enamel



## Watson Cemetery

A Phase II survey was conducted at the Watson family plot in Williamson County, Illinois. The cemetery is located near the planned right-of-way for a new interchange for Interstate 57, north of the town of Marion. Three headstones mark the burials for Ehud Watson (1794–1876) and his wife Susan (1803–1864). In addi-

tion to their original headstones, a third headstone is represented by a government replacement stone for Ehud, a veteran of the War of 1812. With permission of the landowner and Illinois Historic Preservation Agency (IHPA), the topsoil was removed around the limits of the known cemetery. No additional grave shafts were identified. The cemetery was documented and registered with the Illinois state archaeological site files.



samples and conduct molecular-level analysis for inclusion in an ongoing study of subsistence, health, and social/biological variability of native populations. Osteological analyses provide demographic information on individuals as well as health and lifestyle information. Stable isotopic analysis of bone collagen and apatite, and enamel apatite, will be critical to address questions of dietary variability between individuals and populations, both through time and between distinct social groups as identified through traditional archaeological means. Collagen prepared for stable isotope analysis is evaluated for AMS dating of specific individuals and burial events allowing establishment of tight temporal control in defining chronological shifts in diet, health, and mortuary practices. In addition to diet, we are interested in investigating questions of population movement and interaction through strontium and ancient DNA (aDNA) analyses. Strontium ratios of tooth enamel purified for stable isotope analysis will be used to identify possible non-local individuals within these assemblages providing molecular evidence of population movements and interaction. Tooth crowns remaining after sampling of enamel are available for future aDNA analysis.

Significant progress was made on both of these projects during 2010. Osteological analysis is largely completed and we have begun to compile the results into draft reports. Processing of bone and enamel samples for stable isotope analysis is in progress and preliminary results are available from a number of sites; these data assist us in selecting samples for AMS dating and strontium analysis.

Stable isotope analysis of the Cahokia Fingerhut, Gems, Tract 15B, and SubMd 51 localities were conducted in 2010. These results suggest differences in the consumption of maize between site and between individuals within sites. Collagen AMS dates from Tract 15B reveal temporal differences in diet. Other apparent differences in diet from contemporaneous burials may reflect differences in status, ethnicity, or place of origin. We anticipate that the completion of isotopic and radiocarbon analyses of additional burials within the confines of the Cahokia mound center (including Submound 51, Gems, Fingerhut localities) will result in a more comprehensive perspective on the relationship between status, gender, and diet.

### Public Outreach and Professional Development

ISAS bioarchaeologists presented results of their research at the Society for American Archaeology meetings in April 2010 and at the Midwest Archaeology Conference in October 2010. They also authored and/or co-authored papers for publications in *Radiocarbon* and *Illinois Archaeology*.

The bioarchaeology staff also assists students from the UIUC Department of Anthropology through supervising undergraduate and graduate osteological research projects and providing analysis space for visiting researchers. In 2010, we worked with Sara Otten (Richland Complex sites), Doreen Dong (Drda site), and Aimée Carbaugh (Fingerhut Cemetery). Analysis of human remains from the upland Grossman site near Cahokia forms the basis for Sara Otten's Master's Thesis. Doreen Dong's osteological analysis of the Drda site mortuary remains will be published in *Illinois* Archaeology. Carbaugh's analysis of dental remains from the Fingerhut Cemetery, an early Mississippian cemetery within the larger Cahokia site excavated by Charles Bareis in the 1960s, was the basis for her Senior Honor's thesis. This year, Carbaugh, was awarded the Jeanette E. Stephens Student Paper award. Carbaugh was invited to present her senior thesis entitled, Fingerhut Site (11S34-7): Cemetery Dental Analysis at the 2010 IAS conference held at the Illinois State University campus. The information on dental health and age gathered by Ms. Carbaugh, combined with recent osteological and stable isotope data from Fingerhut, provide valuable insight into social and temporal relationships at Cahokia.

### **Curation**

Curator Dr. Laura Kozuch and her staff—Stephanie Daniels, Kim Wurl, Michael Gornick, and Zack Gaydos—oversee ISAS collections. Their responsibilities include all aspects of collections management and maintenance of the Charles J. Batter C. H. Line and J. Batter C. Line and J. Batt

lections management and a 1 s o maintenance of the Charles J. Bareis Documents Collection, a repository of cultural resource management related documents and other archaeological resources.

Curation supervises collection transfers within ISAS and between ISAS and other institutions; handles the accession of private donations; maintains and stores collections, using appropriate methods and containers; and monitors storage areas with respect to access, security, and proper environmental conditions to reduce pest, water damage, mold, and ultraviolet risk. Material from approximately 2,000 sites is curated by ISAS.

2010 saw the successful culmination of a National Endowment for the Humanities grant-funded project to catalog and re-house ISAS's Cahokia collections. The two-year grant, which paid for two-thirds of all related costs, including materials and staff salaries, is now complete and an online catalog is available at: www.isas.illinois.edu/cahokia/index.html.



## **Warehouse Move**

In April and May 2010, ISAS curation staff participated in moving collections, about 5,500 boxes, and shelving from its campus warehouse to warehouse space in Rantoul, Illinois. With the help of a moving company, three tractor-trailer and four smaller truckloads were moved during a multi-stage process which took an estimated 800 hours.

The benefits of this new storage space are manifold. There is room for approximately 13,400 curation boxes, which more than doubles the old warehouse's capacity. With both central heating and cooling, the growing collections are now stored in climate-controlled space. Additionally, the space is monitored for unauthorized intrusions by an electronic surveillance system. This brings all ISAS collections up to the standards set forth in the federal legislation, "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR, Part 79).

With this move, ISAS also realized the more efficient use of shelves by utilizing the topmost shelf of each unit. The Rantoul warehouse has enough room for the estimated 300 boxes of FAP 310 project materials that were excavated in the 1990s and 2000s in Madison and St. Clair Counties. These artifacts and associated documents have been stored in American Bottom Field Station facilities but will now be brought to Central Illinois for analysis and final curation.



The catalog highlights nearly 100 years of archaeology at the University of Illinois. Additional project benefits accomplished in 2010 included creation of a finding aid for Cahokia-related documents, publication of two scholarly articles on Cahokia artifacts by Kozuch, inclusion of the 2008 transfer of Cahokia artifacts from the UIUC Spurlock Museum, most with associated photos, and analysis of the Groves Borrow Pit near Powell Mounds by Daniels. Although digital imaging was not an objective of the NEH-funded project, Gornick and Gaydos are photographing some of the more sig-

nificant artifacts from the collections. The digital images will accompany the online Cahokia catalog in thumbnail form. This is one of the most rewarding and appropriate activities in Curation, since it streamlines access to these unparalleled collections.

During 2010, Collections Specialist Stephanie Daniels cataloged an additional 700 volumes into the Chares J. Bareis Documents Collection, which houses more than 22,000 items. Kim Wurl processed more than 20,000 documents for the document inventory project and scanned and preserved another 4,600 documents from the Charles J.

**Bareis Documents** Collection. She has helped with the photographic documentation of private collections recorded by ISAS. Other Curation staff is now moving forward with the re-boxing of a portion of the 2005 accession of artifacts from the Center for American Archeology.

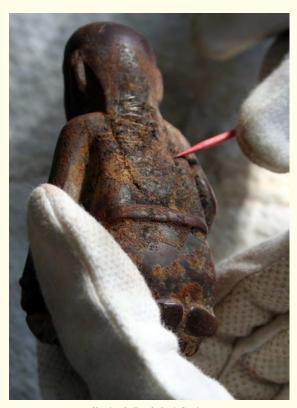
All requests to view the artifacts, photographs, and documents that ISAS stewards is handled by Curation. In 2010, a total of 175 hours were spent on collection registration, in-



Ongoing loans of ISAS materials have been made to the following institutions: Cahokia Mounds Museum (Mississippian celts from the Grossman site); Rockford International Airport (prehistoric and historic artifacts from the Shumway site); Belleville Labor and Industry Museum (material); Madison County Historical Museum (casts of the Mississippian Birger and Keller figurines); and the M.W. Boudreaux Memorial Visitor Center in Monroe, Missouri (images) for the U.S. Army Corps of Engineers.

Public outreach activities by ISAS staff are tracked by Curation. This year, approximately 1,000 volunteer hours were spent in schools, clubs, museums and libraries, and the field. In November, ISAS staff participated in its 1,000th publicengagement event—a talk by Joe Galloy and Pat Durst for the ex-



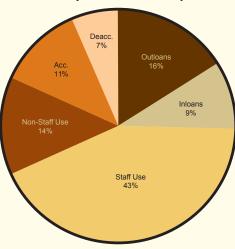


Cleaning the East St. Louis figurine.

hibit, Your Modern Archaeologist, opening at the Labor & Industry Museum in Belleville.

Kozuch continued her participation in the UIUC Preservation Working Group: www. will.illinois.edu/pwg. Its most important effort has been preparing a pamphlet summarizing data gathered from 2008–2010 on "Campus Collection Needs," one of the most pressing of which is the stabilization and preservation of UIUC's Alma Mater statue. Other activities included the *Preservation Emporium* in February and *Home Movie Day* at the Urbana Free Library in October. These events help the public identify and preserve personal heirlooms and collections. Wurl remains president of the East Central II-





linois Archaeological Society and coordinates monthly speakers and meetings that address topics of interest to the avocational and professional archaeologist.

### **Faunal Laboratory**

ISAS faunal analyst, Steve Kuehn, is responsible for the identification, analysis, and interpretation of prehistoric and historic faunal assemblages from archaeological sites across Illinois. Faunal material (consisting of bone, teeth, antler, fish scale, mollusk shell, and eggshell) is recovered from a variety of sites and can provide important information on diet, animal exploitation strategies, habitat and resource availability, seasonality, and butchering practices. In addition to preparing faunal reports based on his analyses, Kuehn maintains and continues to develop the ISAS faunal comparative collection at the ISAS Neil Street Lab facility.

In 2010, a number of much-needed fish species were donated by fish biologists at the Illinois Natural History Sur-vey and

are currently being processed for use in the comparative collection.

A very large mixed late Middle and early Late Wood-

land faunal assemblage was recovered at the Coon Run VII site (11MG307) in Morgan County, Illinois. Nearly 44,000 specimens were obtained, primarily from an extensive midden deposit but also from pit features. Fish remains predominate with bullheads, catfish, sunfish, and bowfin the most common. A moderate number of gar, pike, sucker, and drum elements are also present. Deer and muskrat remains dominate in the mammal assemblage; other taxa identified include timber wolf, red fox, domestic dog, bobcat, raccoon, otter, mink, cottontail rabbit, plains pocket gopher, and tree squirrel. A variety of waterfowl, riparian birds, and forest and prairie dwelling birds were recognized as well. A relatively large number of turtles and snakes were identified, but it is not certain if all of the latter represent dietary remains. An array of freshwater mussels was noted, further demonstrating the inhabitants' overall reliance on riparian and wetland resources. In addition, 261 crayfish exoskeleton fragments, representing at least 37 individuals, were recovered. Most were found in feature context and represent an interesting Native American food resource. Due to preservation issues, crayfish remains are scarce in archaeological contexts.

A sizeable Weaver assemblage was recovered at the Dobey site (11SC1134). Over 10,000 specimens are present with a wide array of taxa identified. Aquatic faunal resources predominate, especially mussels and fish. Common mussels identified include elephant-ear, spike, threeridge, monkeyface, and yellow sandshell, while the fish assemblage is dominated by bullheads, bluegills, and similar species found in river, creek, stream, and backwater lake settings. Deer are the most abundant mammal but the remains of domestic dog, beaver, raccoon, muskrat, and mink are also present. Birds and reptiles identified in the Dobey assemblage include teal, turkey,

bey assemblage include teal greater prairie chicken, northern bobwhite, snapping turtle, slider, painted turtle, map turtle, and various non-venomous snakes. Several tiger salamander and

Mandible sickle with polish, Orendorf site, Fulton County.

indeterminate salamander bones were recovered, but it is not clear if they represent dietary refuse or are intrusive in origin. The Dobey faunal assemblage is similar to that of other Weaver sites in the region, with some variability attributed to differences in local habitats and resource availability.

Kuehn also began analyzing a Havana component faunal assemblage from the Rockwell Village site (11MN236) in Mason County, Illinois. Fish remains predominate among the nearly 16,000 specimens recovered. A variety of backwater lake and river species were identified including bullhead, bowfin, catfish, gar, buffalo, sucker, and sunfish. The site inhabitants targeted other aquatic and wetland animals such as geese, ducks, grebes, turtles, shellfish, muskrats, minks, and beavers. Deer, elk, bobcat, raccoon, and turkey remains are also present in the assemblage.

Kuehn also examined a small assemblage of worked bone and shell from Oakwood

### The preservation of faunal remains at archaeological sites can vary a great deal. Buried bone and shell are heavily impacted by soil acidity, freeze and thaw cycles, groundwater percolation, and various other factors. On rare occasions, however, above average prestion can lead to some unusual finds In the midden deposit at the Fingers (11S333) site in Madison County, twenty-two pieces of bone display snakeskin impressions. The impressions represent instances where snakes or shed skins decomposed alongside discarded deer, bird, turtle, and mammal bones. This indirect evidence does not allow us to determine if the snakes were caught and consumed by the site inhabitants or if they were simply considered pest animals to be removed from the habitation area. Snake vertebrae were recovered elsewhere at the site, from feature context, and it is quite possible some snakes were utilized for food. According to historic accounts, Native Americans in the Southeast ate some snakes, and snakeskins, rattlesnake rattles, and jaws were often placed in medicine hundles. In some traditional stories, snakes, were associated with the lower or under world, and were closely connected with lightning, thunder, and rain. In general, snakes an important physical, medicinal, and ceremonial role in the Native American world

Mound (11WI1), as part of an ongoing Upper Mississippian isotope study directed by Dr. Kris Hedman. Several gorgets and shell beads, fashioned from marine and freshwater mussel shell, were identified, as were several shell spoons or scoops. Bone tools recovered include beamers, awls, and a possible tube or bead, all fashioned from deer and bird bones. These artifacts provide an interesting look into the types of utilitarian and ornamental items often included in Mississippian burials.

Several historic site assemblages were analyzed in 2010, providing important data on early nineteenth-century diet. Over 2,100 pieces of bone, eggshell, mussel shell, and fish scale were recovered from the Excelsior site (11BR429). Mammal remains predominate, in particular swine, with cattle, deer, raccoon, opossum, rabbit, and squirrel also identified. Other animals present include chicken, wood duck, teal,

passenger pigeon, gar, brown bullhead, buffalo sucker, and several types of freshwater mussels. The composition of the faunal assemblage suggests an Upland South diet, which is consistent with the social context of Brown County during the antebellum period.

The DeBaun site (11MS2258) was occupied ca. 1820-1830 and produced a faunal assemblage of nearly 4,000 specimens. An Upland South diet is indicated with an abundance of swine, chicken, and deer remains present. A variety of wild fauna were identified, including woodchuck, squirrel, pocket gopher, rabbit, turkey, prairie chicken, Canada goose, mourning dove, channel catfish, bullhead, and creek chub.

The Manns (11MS1846) faunal assemblage was somewhat smaller with only 1,372 remains. Domesticated animal remains are most common, with swine, cattle, sheep/goat, and chicken identified. Eggshell fragments are abundant, but relatively few wild animal bones were recovered. The faunal assemblage suggests an Upland South diet, but in a manner less pronounced than in the Excelsior or DeBaun assemblages suggesting that other factors are influencing dietary choice.

A small amount of bone was recovered at the Tofflemire site (11WO476). Chicken, swine, sheep, and cattle bones were most abundant, with a few unusual specimens recognized during the analysis. Thirty-five carp (*Cyprinus carpio*) elements were identified, indicating that the material was deposited after 1879, when these fish were first introduced in

Illinois. A complete mandible from a longtailed weasel is also present and likely represents a pest animal trapped or killed by the site inhabitants, as they are known to prey on poultry and even young piglets.

Other small faunal assemblages from the historic Top Flite (11MS1996) and 11MS1997 sites were analyzed. Analysis of the Jarrot Nordique (11S1741) faunal assemblage continued in 2010, focusing on the Historic Native American and French colonial remains.

Specimen identification was completed for several sites in the American Bottom; the faunal reports are currently in preparation and will be completed in 2011. The Late Woodland Reilley (11MS27) assemblage contains a large amount of deer bone, con-

sistent with an locale. Other taxa identified include elk, coyote, plains pocket gopher,

turkey,

upland

Raptor talon,

Orendorf site

Fulton County.

raccoon, fox squirrel, Franklin's

ground squirrel, box turtle, gray fox, and black bear. Various fish, mussels, waterfowl, wetland birds, and aquatic mammals are represented, but forest, forest-edge, and prairie animals are abundant, suggesting that the site inhabitants focused on local upland resources.

Faunal assemblages from several Mississippian hamlets were recovered during the Sauget Industrial Park investigations in St. Clair County. All specimens from the Fingers (11S333), Curtis Steinberg Road (11S823), Centreville (11S332), Baby Moon (11S334), Mousette Goose (11S459), and Goose Ditch (11S944) sites have been identified and the report is currently in preparation. Most of the assemblages are relatively small, but the Fingers site contained a large

midden deposit with thousands of

well-preserved remains.
The Fingers assemblage contains over 24,000 pieces of bone and shell. Deer remains are abundant, and other mammals

Drilled deer phalanx for cup and ball game, Chapman site, Jo Daviess County.

identified include muskrat, dog, beaver, skunk, marsh rice rat, raccoon, mink, fox squirrel, gray fox, and red fox. Most of the identifi-

able specimens are from aquatic floodplain and riparian habitats, indicating that the inhabitants specifically targeted these resources. A wide variety of fish (especially bullheads, catfish, bowfin,

suckers, and sunfish), ducks, geese, grebes, marsh and wetland birds, turtles, mussels, and snakes were identified. Several whelks and other marine mollusks are also present. Further study of these remains

will provide important information on dietary behavior at outlying Mississippian sites in the American Bottom.
In 2010, the Faunal Lab continued working on faunal assemblages from

the Fisher (11F5) and Orendorf (11F107/1248) sites. Small assemblages from Seibert (11S730), Bottlemy (11MH495), 11KX271, and other sites also were examined. Kuehn also began analyzing the faunal material from the Chapman Village (11JD12) site in northwestern Illinois. The Chapman assemblage, recovered during the 2003 UIUC Field School investigations, contains large amounts of deer and elk bone, but black bear, dog, beaver, and smaller mammals are present. The remains of various river fish, turtles, waterfowl, and freshwater and marine mollusks were also recovered. Working in conjunction with Phil Millhouse, Kuehn will be analyzing faunal remains from the contemporaneous Mills Village site (11JD11), with the goal of developing a more cohesive picture of Apple River Mississippian subsistence patterns.

A final draft of the Cahokia Tract 15B (11MS1447B) faunal analysis was completed and is currently in preparation for publication. The Tract 15B data will provide further insight on Mississippian subsistence practices and resource procurement and distribution patterns at Cahokia.

Kuehn submitted several articles for publication in 2010 and presented papers at the Midwest Archaeological Conference in Bloomington, Indiana, the Society for American Archaeology Conference in St. Louis, and the Illinois Archaeological Survey Meeting in Normal, Illinois. He also

co-authored a paper on the Late Pleistocene Raven Bluff site (DEL402) in northwestern Alaska, which was presented at the 18th Arctic Conference at Bryn Mawr College in Pennsylvania. Dave Nolan and Steve Kuehn received a \$300 Illinois Association for the Advancement of Archaeology (IAAA) Permanent Fund grant to partially fund a radiocarbon date for bison remains from the Lima Lake site in Adams County, Illinois. Kuehn gave a brief presentation on the site and the bison remains at the 2010 IAAA annual meeting in Springfield. Kuehn also participated in a number of outreach activities at local schools, giving talks on zooarchaeology and Illinois archaeology.

### Cartography/GIS Lab

ISAS's Cartography/GIS Lab, under the direction of Mike Farkas with the assistance of Coren Buffington, provides spatial, cartographic, GIS, and site modeling support to the program. Located in the main program offices on the University of Illinois at Urbana-Champaign campus, the lab houses three PC workstations, two large format digitizing tablets, and a large format scanner. Our primary software is ESRI's ArcGIS applications along with proprietary software relating to electronic data collection equipment (Trimble and Sok-

kia) and Quick Terrain Modeler software for use in LiDAR derived terrain visualization. We also assist with field collection of spatial data through use of GPS receivers and Electronic Total Stations. The electronic field data is integrated with other site and/or project specific data (feature maps, ROW plans, aerial photography, remote sensed data) to create site and project specific GIS databases. This is used in the spatial analysis of sites and projects and to create figures for use in publications.

We are also heavily involved with the IDOT Project Notification System (PNS). Projects received by the ISAS Statewide Survey Division are summarized and forwarded to the GIS Lab where an information packet is generated specific to each project. The packet consists of project location maps and a summary of nearby mortuary-related archaeological sites (contained in the Illinois Inventory of Burial Sites). This information is then uploaded to the PNS for Tribal representatives, ISAS field archaeologists, and other IDOT staff. We also manage the PNS, its tribal and agency contacts, and all communication sent by or received relating to the PNS.

The GIS/Cartography lab also provides program-wide access to the state archaeological site file database (IAS database). The archaeological sites database is maintained and provided to ISAS by the Illinois State Museum (ISM). Once received by ISAS, the data is formatted into county-specific GIS projects for use by ISAS staff. We also house and maintain the Illinois Inventory of Burial Sites (IIBS). The Cartography/GIS lab created this spatial database during 2003–2004. As the name implies, it contains the locations and other attribute data of known archaeological burial and mound sites located within the state of Illinois. This dataset is continually updated and now contains over 3,100 records. As part of the PNS system, ISAS field crews revisit known IIBS sites and update the master database with current conditions and status of each site.



Field mapping with the Total Station at the Nancy French site, Morgan County (above); bison maxillary molars, Lima Lake, Adams County (top left).

Camling-Cline Mound Group:
Nickerson 1910 map (left) with
LiDAR Image (right).

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Approved researchers can access the data via a web browser as either a traditional tabular database or a new GIS web application.

With the increasing availability of LiDAR data via the Illinois Height Modernization Program, we have begun to re-inventory and assess the condition of Illinois' 9,000+ mounds. LiDAR data is processed to produce highly detailed, spatially accurate terrain models. Burial mounds and other archaeological modifications to the landscape can then be identified and the information used to update the IIBS. Mounds are protected under Illinois State law, so their locations and conditions are invaluable to preservation groups and agencies tasked to protect these resources while not impeding development.

The lab maintains the program's electronic mapping equipment, specifically, electronic Total Stations and GPS receivers and data-loggers. The lab developed a system for sending highly accurate GPS-mapped archaeological site locational data to the ISM, thereby bypassing the need to digitize the data and eliminating the inherent introduction of spatial error. To date, ISAS is the only organization supplying such highly accurate data to the state site files inventory.

### Historic Archaeology Laboratory

Under the direction of Mark Branstner, with the assistance of Matthew Cross and Veronica Hemrich, the primary mission of the Historic Archaeology Laboratory (HAL) is the identification, evaluation, and docu-

mentation of historic period archaeological resources from sites distributed throughout Illinois. In this capacity, the staff participates at all levels—

from initial historical research through project planning and implementation, testing and evaluation, and ultimately, the mitigation of significant sites.

A significant amount of effort was expended relative to the planning process, with prefield research focusing on a wide range of documentary resources, including deed and tax records, maps and atlases, county histories, and any other sources

that provide information relevant to the development history and resultant archaeological sensitivity of specific project areas. These data provide the foundation for the initial survey efforts and ultimately, for the interpretation of all results, from Phase I survey through Phase III mitigation efforts, with more than 225 new survey projects undertaken during the 2010 field season, as well as continuing coordination with ongoing research efforts throughout the state.

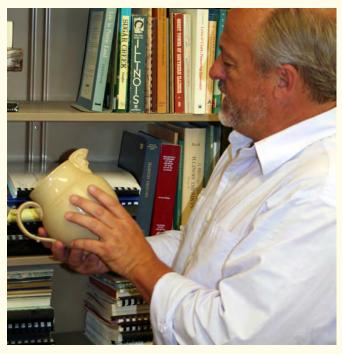
In terms of major survey projects, HAL contributed background research and site summary data for the recently completed Phase I survey for the new IL 336 (FAP 315) corridor between Peoria and Macomb, and assisted in the ongoing US 51 and Prairie Parkway surveys.

Oversight was also provided relative to the Phase I testing of additional areas within the village of Cahokia, a St. Louis

## Project Notification System Wins National Recognition



he PNS is a Web-based, interactive method of communicating with federally recognized American Indian tribes that have expressed an interested in Illinois. This system was developed and is maintained by ISAS for the Illinois Department of Transportation (IDOT) and the Illinois Division of the Federal Highway Administration (FHWA). Consultation with tribes is an important part of the Section 106 compliance process of the National Historic Preservation Act. Password protected, the PNS affords tribes easy access to information about hundreds of proposed IDOT projects and the results of archaeological studies conducted by ISAS for IDOT. Moreover, it allows tribes to immediately respond to IDOT with questions or concerns about projects. The PNS is also used to transmit project information to IDOT districts and ISAS field offices. The PNS was created and refined during tribal consultation workshops held in Illinois in 2008 and 2009. It is an extremely effective means of tribal consultation and has attracted the attention of Departments of Transportation across the U.S. The PNS was recognized by FHWA in their 2010 selection for Exemplary Human Environment Initiatives, which highlights outstanding examples of transportation projects that either create or improve conditions for human activities while protecting the natural environment.



area community that has been continuously occupied since the early eighteenth century. Increasing concern for this highly significant archaeological resource area prompted HAL to petition the Illinois Archaeological Survey for a single, unified site number to encompass all previous archaeological site designations and all future work that may occur in the immediate area. This move

was successful and the French Cahokia Village site (11S1802) now encompasses the entire village footprint, as depicted on early nineteenth century General Land Office survey maps.

At the Phase III level, major projects included the mitigation of several pre-Civil War farmsteads, including the Fountain J. Busey site (11CH591) in Champaign County and the Seibert site in St. Clair County (11S801). While the Busey excavations highlighted early settlement by a highly prominent local family, the Seibert site resulted in the recovery of substantial artifactual and faunal remains from a ca. 1830-1860 Swiss immigrant's farmstead in an area otherwise dominated by Upland South settlement.

The year 2010 also marked our second season of coordinating archaeological recoveries in relation to the Mississippi River Bridge (MRB) project in East St. Louis. Founded in 1873, the East St. Louis stockvards evolved into one of the largest livestock processing facilities in the United States, employing more than 10,000 workers at its peak. While little of archaeological or architectural significance relating to the stockyards remained extant, mitigative excavation of the surrounding working class neighborhoods has revealed extensive deposits relating to their presence, from the late nineteenth century through at least the 1930s. By the end of the second field season, more than 150 trash pits, privies, cisterns, wells,

and cellars had been excavated. It is expected that additional features will be identified in 2011, contributing greatly to our understanding of Illinois' under-documented working class populations of the late nineteenth and early twentieth centuries.

In addition to current fieldwork, analysis and technical reporting for a number of historic sites were either completed



Privy excavation, East St. Louis site, St. Clair County.



For Euro-American archaeological sites in the Midwest, some of the most important documentary sources are the structurally annotated historical maps, including large-format county wall maps and atlases. Unfortunately, many of these documents are quite rare or are held by only a limited number of institutions—often in widely dispersed locations. In order to improve our in-house access to these documents, HAL instituted the "Illinois Historic Map Project." Beginning in 2010 and building on work initiated at NIFS, Veronica Hemrich began a multi-year effort to acquire digital copies of the available historic maps for all 102 counties in Illinois. Given the scope of this project, work has initially focused on the digitization of maps for those counties that are currently under the most development pressure, i.e., those counties where the majority of our archaeological research is located. The project's goal is to completely canvas the state and eventually make digital data available to all of our field offices via the Internet.



Coffin hardware, Canaday site, St. Clair County.

or substantially moved towards completion, including White Bend (11HA938), Stafford (11SG1309), Marlin Miller (11HA318), and Coon Run VII (11MG307).

Another major historic period collection, derived from mitigative excavations at the ca. 1830–1860 DeBaun House site (11MS2258), was cataloged with the assistance of Carol Richards, a graduate student from Illinois State University (ISU). This is only the most recent of several highly successful cooperative efforts that have been undertaken with ISU's Dr. James Skibo over the past several years, and we look forward to additional joint ventures in the future.

Steve Jankiewicz, an undergraduate Anthropology major at UIUC, undertook supplementary analysis of another archived collection. In this instance, the analyzed materials were a collection of primarily late nineteenth coffin hardware that was recovered from an "abandoned" East St. Louis cemetery that had been redeveloped as a public school site in the early twentieth century. When completed, this brief descriptive study of the Canaday site (11S1525) will be submitted to *Illinois Antiquity* for possible publication.

In addition to the incidental research work undertaken in 2010, Branstner presented a number of papers at both national and regional venues. Drawing primarily on the MRB data from East St. Louis, summaries of site context, research questions, and preliminary findings from the 2009 season were presented at the annual meetings of the Society for Historical Archaeology

(SHA) at Amelia Island, Florida; the Society for American Archaeology (SAA) in St. Louis, Missouri; and the Midwest Archaeological Conference (MAC) in Bloomington, Indiana. Branstner also chaired a 2010 MAC session entitled "Historical Archaeology in the Midwest" and has organized a session entitled "The Archaeology of Historic Farmsteads" for the 2011 SHA meetings in Austin, Texas, which will include a paper of his authorship.

Professional publications include an *Illinois Archaeology* article by

Branstner describing the linkeages between standing structures and nineteenth century farmstead archaeology in Illinois.

### **Production**

Production manager, Mike Lewis, and staff members—including photographer/illustrator, Linda Alexander, and production coordinators, Sarah

Boyer, Corinne Carlson, and Angie Patton—comprise the production staff.

Boyer generated figures and tables for "Langford Mortuary Patterns as Reflected in the Material Service Quarry Site in the Upper Illinois River Valley" by Thomas E. Emerson, Kristin M. Hedman, Robert E. Warren, and Mary L. Simon, which appeared in the 2010 Wisconsin Archaeologist, 91(1):1-78. She continued to design and format Bottled in Illinois: The Embossed Bottles and Bottle Products of Early Merchants from Chicago to Cairo, 1840–1880 by John Walthall (IDOT, Chief Archaeologist) and Kenneth Farnsworth. Carlson published the 2009 ITARP Annual Report and designed and formatted At Home in the Illinois Country: French Colonial Domestic Site Archaeology in the Midwest 1730-1800 by Robert Mazrim. Patton completed the 2010 IAS Journal—a two volume, 820 page festshrift dedicated to John Walthall; forty authors made contributions.

ISAS continues to distribute its publications through journal ads, the ISAS website, and regional archaeological conferences. Boyer is responsible for processing and shipping published materials. In 2010, Boyer attended and sold publications at the Midwest Archaeological Conference (MAC).

Photography in 2010 presented Alexander with diverse assignments, including artifacts from the Orendorf, Fish Lake, Cahokia, Nochta, Lima Lake, Janey B. Goode,



Manuscript production.



Fingerhut, Oakwood Mound, East St. Louis, Neteler Mound, Coon Run VII, Chapman, and Hoxie Farm sites; private collectors and their collections—Robert Reber, Steve Kysar, Ed Koelikamp, and Paul Welton; and public outreach—"DIG IT" children's program at the Champaign Public Library, Janey B. Goode-two day coprolite shoot, the Naturally Illinois Expo, the Fred Brown Studio and interview shoot, IDOT Career Day, and the Pike County Historical Atlas.

This past year Patton's videography accomplishments allowed for the incorporation of photo "stills" into her completed projects. These projects included an Archaeology Awareness Week video, as well as the filming of Fred Brown's studio. Brown, an artist who creates miniatures and reproductions of artifacts, was contracted

by ISAS to replicate the East St. Louis figurine, which was recovered in 2009.

Graphic design in 2010 included Alexander's participation with INRS division designers on the INRS Logo Committee and creation of a "Let's Draw An Artifact" activity for the Naturally Illinois Expo, as well as a collaboration between Carlson and Alexander on the design of seven signs for the event, the creation of a new "WE ARE ISAS" poster, and the creation of new signage to indicate our ISAS name change.

Alexander's public engagement in 2010 included the implementation and participation in both the Naturally Illinois Expo in Champaign and the IDOT Career Day in

Springfield. Alexander also assisted with the "DIG IT" event at the Champaign Public Library and the ATAM Conference.

In 2010, ISAS extended public outreach efforts by incorporating digital media assignments into their efforts. Carlson completed approximately seven news briefs, which ranged from archaeology conference follow-up pieces to private collector profiles, as well as public engagement event descriptions. ISAS in the News can be found on our homepage at www.isas.illinois.edu/. These new public engagement assignments have provided Alexander with the opportunity to complement these briefs with action images.

The Illinois Cultural Resource Management Document Archive Project is managed and maintained by the Illinois State Archaeological Survey. These archival

documentscontain certain restricted information on archaeological site locations, which might endanger these resources if made public. Consequently, access to the archive is restricted to professional archaeologists who meet appropriate state and federal standards.

In addition, work continues on the ISAS Digital Images Project. This ambitious effort to scan and make available digital images from slides, photos, maps, and documents of ISAS started in 2002 as the Laboratory of Anthropology Digital Image Project and has been resumed. In 2010, staff began scanning slides from the FAI-270 Project.

With the creation of ISAS on February 1, 2010 a new website was created and launched in April. Additionally, new business cards, stationary, building, and vehicle signs were created and distributed.



Video production.

With the completion of a three-year computer upgrade plan last year, a new two year plan to upgrade all ISAS mapping computers began. This will add two new mapping computers to each ISAS Field Station. These upgrades will allow ISAS to run the latest ArcMap version throughout the Survey.

### Salisbury Research Laboratory

The Salisbury Research Laboratory, managed by Outreach Coordinator Robert Mazrim, focuses on research and educational projects, as well as the analysis of large historic projects conducted for IDOT.

The French Colonial Research Project, initiated by ISAS and the Sangamo Archaeological Center in 2006, continues to engage insmall-scale research and education-based projects in the French Colonial District in southwest Illinois. In the fall of 2010,



Field photography

## Preserving the 1895 Pike County Atlas

In November 2010, a cooperative effort was undertaken to preserve a rare resource — the 1895 landownership Standard Atlas of Pike County, Illinois. The Pike County Historical Society, the Illinois State Museum, and the Illinois State Archaeological Society combined efforts to research possibilities for preservation.

Michael Boren, president, and Carol McCartney, New Philadelphia Association member, of

the Pike County Historical Society allowed the atlas, owned by the society, to be loaned for the purpose of attempting a duplication.

Due to the fragile condition of the atlas, research was required to determine the best method for replication. Claire Martin, research associate at the Illinois State Museum, contacted Thomas Emerson, director of the Illinois State Archaeological Survey, who offered the resources of ISAS to aid in the reproduction.

Claire Martin felt an obtainable copy of the Standard Atlas of Pike County would be very useful to the museum in its study of the New Philadelphia community, especially given the absence of the 1890 U.S. Census schedules. In their "Illinois County Landownership Map and Atlas Bibliography and Union List," Conzen, Akerman, and Thackery list only one other copy of this atlas, and it is anonymously held.



In addition, Arlyn Booth, map librarian at the Illinois State Library, expressed an interest in having a scan of the atlas for the library's collection because the 1872 and the 1912 Pike County Atlases are much more commonplace than the 1895.

The atlas's binding was in questionable condition. It was bound with glue and metal staples instead of stitching, and most of the staples had

rusted away. Some of the pages were stuck together by what was left of the binding glue. Therefore, flatbed or large roll scanning were not options for reproduction. It was decided that a digital camera and copy stand would be the best duplication solution.

An ISAS team consisting of Mike Lewis, production manager, Linda Alexander, photographer, and Kim Wurl, curation assistant, accomplished the challenging digital replication in December of 2010. Each page of the atlas was carefully placed in sequence on the copy stand and a photo taken of it. Mike Lewis cleaned up the individual digital images of the atlas in Photoshop and combined them into a single PDF file.

A CD copy of the atlas was given to the Illinois State Library, and it is now cataloged and on the national WorldCat bibliographic database. The CD is not on loan; however, requests for copies may be directed to Arlyn Booth of the Illinois State Library.

Mazrim and Margaret Kimball Brown initiated a testing project at the site of the second Fort de Chartres (circa 1732). This followed a revised study of the fort and the associated village of Chartres, conducted by Brown and Mazrim over the past three years. Remote sensing, conducted by Tom Loebel, located a large subsurface anomaly that is quite possibly the well-preserved remains of that French fortification.

The Salisbury lab also initiated a project to stabilize and reexamine one of the most important archaeological collections in the state that was excavated over 30 years ago. The Zimmerman site, in La Salle County, Illinois, was the home of the Kaskaskia tribe of the Illinois Confederation during the 1600s. In 1673, Father Jacques Marquette arrived at the Grand Village of the Kaskaskia, building a mission there and thus initiating what we know as the period of European history in Illinois. Archaeological excavations, funded by the La Salle County Historical Society, were conducted at the site during the early 1970s. By the 1990s, the artifacts from those excavations were largely inaccessible, and were thought have been lost. In 2010, Mazrim worked with Historical Society board members to relocate the collection. He also took the opportunity to reanalyze the ceramic and trade goods assemblages, to better understand the character and chronology of the Illinois Confederacy







presence at this important site. The results of that study will be presented in a forthcoming article.

Also related to protohistoric studies, Mazrim gave a presentation to the Ojibwe tribe at Madeline Island, Wisconsin, concerning his recent analysis of protohistoric materials from the Cadotte site, excavated there during in the 1960s. It

was at Chequamegon Bay where Father Jacques Marquette first met members of the Illinois Confederation, who came to the region to trade during the 1600s. In 1673, because of this meeting, Marquette traveled to what would become Illinois. The results of Mazrim's work with the Cadotte site collections will be published this year in the Midcontinental Journal of Archaeology.

IDOT-related projects at the Salisbury lab included reports on two sites from the FAP 310 Highway Project. Dr. Clair Dappert, who joined the Salisbury staff in 2010, undertook the analysis of these sites. Although there is no archival record of the dwelling or family who lived at the Top Flite site (11MS1996), the features and artifacts recovered there indicate the presence of a short-term, Civil War-era farmstead. One of the most notable

> aspects of this assemblage is the size and diversity of the clothingrelated artifact sample. This includes a hard rubber corset rib and 63 buttons, many of which match and may actually represent the remains of entire articles of clothing, discarded into an abandoned pit cellar at the close of the Civil War.

> The material recovered during investigations at the Manns site (11MS1846) reflects a domestic farmstead dating from circa 1840–1870. Documentary evidence indicates that the farmstead was associated with the Robert Garrett family, who owned the property between 1831 and 1892. The artifact assemblage from the Manns site suggests that the purchasing

habits of the Garretts were similar to other rural Illinois households of the period, although the site produced a significant sample of Alton-area stoneware. The large number of stoneware pots and jars indicates that the family processed and preserved a wide range of foodstuffs. The site also produced a large number of smoking pipe fragments. The faunal remains recovered from

the site reflects a diet reliant on pork and chicken, which is consistent with families with an Upland South background or with households of limited economic means.

In 2010, Mazrim completed his third book manuscript for ISAS. At Home in the Illinois Country: French Colonial Domestic Site Archaeology in the Midwest 1730–1800 is a large-scale synthesis and summary volume, focusing on French residential sites in Illinois. It will be published in the Studies in Archaeology series early in 2011. The volume contains the results of fieldwork conducted at several sites in the village of Cahokia, Peoria, and Prairie du Rocher; an in-depth examination of traditional French ceramics; and a detailed overview of material culture affiliated with eighteenth century French households in Illinois.

Mazrim's article in the December 2010 issue of Gateway Magazine (published by the Missouri Historical Society) details his revised examination of the Ghost Horse site, investigated by ISAS in 1998. New documentary research, and the reexamination of the features and artifacts from the site, led to the conclusion that the large dwelling found there was quite possibly owned and occupied by Pierre Laclede, as he was planning the new town of St. Louis in the winter of 1763-1764.

## **IDOT Compliance**

ISAS received 227 requests for Phase I archaeological survey from IDOT in 2010. More than 17,000 acres were surveyed in conjunction with projects



Reanalysis of ceramic material, mid-seventeenth century Zimmerman site, LaSalle County (above); buttons, Top Flite site, Madison County.

located in 64 counties throughout the nine IDOT districts. Approximately 70 percent of the projects involved highway and bridge improvements, while nearly 25 percent were proposed borrow pits. The remainder of survey requests were for a variety of projects, including airport expansion, drainage improvements, railroad upgrades, and bike and multi-use path development.

A total of 234 projects were resolved in 2010. Phase I survey was completed for 209 projects, and for these, final survey reports recommending cultural resource clearance without the need for additional work were submitted to IDOT. Twentyseven projects were canceled. (Eight were canceled after Phase I survey and report completion.) Resolution of six projects with sites that required Phase II testing or Phase III excavation was accomplished with the submittal of a final report(s).

At year's end, some projects remained to be surveyed, some were awaiting final plans to determine impacts, some had sites recommended for further examination, and some required a final report.

Approximately 521 archaeological sites that differed in size, complexity, and age were investigated in 2010. Sites ranged from isolated projectile points recovered during pedestrian survey to large habitation sites with intact cultural features, whether the remains of prehistoric wall-trench structures and storage pits or historic house foundations, wells, and privies. Investigative techniques ranged from surface collection and documentation of small nondiagnostic artifact scatters to mitigative excavations of sites potentially eligible for listing on the National Register of Historic Places.



### 2010 Field Investigations

### Northern Illinois Field Station

In 2010, Phil Millhouse and Paula Porubcan co-coordinated work at the Northern Illinois Field Station (NIFS) in Loves Park, Illinois with the assistance of crew chiefs and project supervisors, Melissa Baltus, Paula Bryant, Amanda Douglas, Ed Jakaitis, Pete Geraci, and Dr. Tom Loebel. Further assistance was provided by crew-chiefsin-training who included Jenny Benish, Brittany Jackson, Mike Salerno, Micah Smith, Amber Skupski, Mackenzie Stout, Sydney Stout, and Elisa Turner. Crewmembers Dan Aylward, Troy Belford, Laura Brodie, Marissa Caltagerone, Margaret Deneen, Rachel Echiverri, Jessica Gardner, Spenser Greenberg, Stephen Jankiewicz, Caleb Kestle, Colin LeJeune, Jim Meierhoff, Brian Mrozek, James Render, Joe Scurek, Dave Simpson, and Michael Williams assisted with various aspects of survey, excavation, artifact processing, and ASSR/ ATSR preparation. In addition Marcia Martinho, graphic artist, was involved in a series of illustrations, photography, and report preparation for several ISAS offices.

The year's work included a total of 74 projects that requested survey of 4,447 acres. These projects included 48 (65%) in District 1, 25 (34%) in District 2, and 1 (1%) in District 3. A total of 99 sites were recorded that included 44 prehistoric, 26

prehistoric/historic, and 19 historic sites. In District 1 Phase II testing was conducted for the Thorn Creek Bike Trail Project (11CK383, 11CK394, 11CK1064, 11CK1065, 11CK1066, 11CK1068, 11CK1069, 11CK1070, 11CK1072) in Cook County, the Duff site (11K1194) in Kane County and the Readman site (11WI3630) in Will County. In District 2, Phase III work was conducted for the Route 2 Expansion Project (11OG234, 11OG15, 11OG292, 11OG272, 11OG279, and 11OG131) in Ogle County.

Also undertaken in 2010 was the revisit of 24 mortuary sites (16 mound groups, 5 cemeteries, and 3 isolated burials) in order to contribute updated information to the Illinois Inventory of Burial Sites (IIBS). Of these, 19 of the revisits were within District 1, four within District 2, and one in District 3. The revisits determined that 16 sites were destroyed, 6 were par-

tially impacted, and 2 were relatively intact. NIFS personnel were involved in a number of public outreach projects during 2010. Public presentations were given by Melissa Baltus to the Wisconsin Archaeological Society, Paula Porubcan to the Sauk Trail chapter of the IAAA and Three Rivers chapter of the IAAA/WAS, Ed Jakaitis to Three Rivers IAAA/WAS chapter, and Phil Millhouse at the opening of the Keogh Ef-



Artifact illustration, Northern Illinois Field Station.

figy Preserve near Galena. Amanda Douglas provided interpretive assistance at the Tinker Cottage in Rockford; Paula Bryant and Melissa Baltus helped with Archaeology Days at the Elk Grove Historical Society; and Phil Millhouse provided archaeology training to the Jo Daviess County 2010 Master Naturalist class. Research on regional archaeological collections was undertaken by Paula Bryant and Ed Jakaitis: Bryant examined Albert Scharf materials and maps from the Chicago area, and Jakaitis is currently examining the George Johnson collection from the Pecatonica drainage. Both Millhouse and Jakaitis were involved in efforts to preserve the Portage mounds (11JD1) in Jo Daviess County and Johns Mounds (11WO3) in Winnebago County.



Machine excavation, Thorn Creek Bicyle Trail, Cook County (above); projectile point (right, top) and hammerstone (right, bottom) from the Thorn Creek Bicycle Trail, Cook County.

### **DISTRICT 1**

## Thorn Creek Bicycle Trail, Cook County

In 2009, NIFS completed a Phase I survey for a proposed bicycle trail along Thorn Creek in the Cook County Forest Preserve (ISAS Project Log #09058). A series of nine prehistoric archaeological sites identified during this survey were recommended for Phase II testing, including two sites previously reported by Ed Lace (CCFP). These nine sites were tested in 2010, using a combination of hand excavation and machine stripping. Two of the nine sites

(11CK1064 and 11CK1065) were identified as dispersed living surfaces with non-diagnostic lithic assemblages, while one site (11CK1072) was identified as a small artifact scatter likely related to nearby Upper Mississippian sites.

11CK1066 yielded only one diagnostic artifact, a Middle/

Late Archaic side-notched Raddatz style projectile point and no prehistoric features.

Site 11CK383 was previously recorded by Ed Lace as a Mississippian occupation based on the presence shell-tempered pottery. Lace also recovered Madison Triangular points, Early Woodland contracting stem points, and small corner notched points that may be Late Woodland or Early Mississippian in origin. Hand excavations by NIFS revealed a dispersed living surface with no identifiable subsurface features. No diagnostic lithic artifacts were recovered; however, two grit-tempered sherds indicative of a Woodland occupation were found. Site 11CK394 was initially reported by Ed Lace as a Middle Woodland site. Again, hand excavations during the NIFS Phase II survey revealed a dispersed living surface with no subsurface features and no diagnostic artifacts.

Hand excavations at sites 11CK1068, 11CK1069, and 11CK1070 yielded triangular Madison points, drill tips, thumb-nail scrapers, and shell-tempered pottery indicative of Upper Mississippian occupations. Subsurface features identified at these sites during hand excavations prompted machine stripping of the site areas within the project impact corridor. A total of five Upper Mississippian features were identified at 11CK1068: two small, shallow pits

and three larger pits which yielded Madison points, shell tempered pottery, charcoal, bone and shell. One large, shallow Upper Mississippian pit was identified during hand excavations at

11CK1069. This feature contained a large amount of FCR, but only one shell-tempered sherd and a few small chert flakes. Machine stripping yielded only one additional feature, a small posthole likely dating to the Middle Woodland. A small, shallow Upper Mississippian pit and possible living surface were identified during hand excavations of site 11CK1070. No additional features were identified during machine stripping.

Five of the nine sites tested (11CK383, 11CK394,11CK1068,11CK1069 and 11CK1070) have been recommended as eligible for the National Register of Historic Places (NRHP). Test excavations have cleared the site areas within the footprint of the bicycle path as reported in the concurrence memos submitted to IDOT. A series of ATSRs is currently in progress.

Sites 11CK1074 and 11CK1075 were

### Midlothian Creek Bridge Rehabilitation, Cook County

located during Phase I survey for the rehabilitation of the US Route 6 bridge structure over Midlothian Creek (ISAS Project Log #10071) in Cook County near the intersection with IL Route 50 (Cicero Ave), partially within the Oak Forest Hospital Grounds and near the Oak Forest Site (11CK53, a previously recorded Oneota village). Limited hand unit excavations were completed for both sites in order to ascertain the possibility of intact subsurface deposits still present within this relatively urbanized setting. Investigations indicated that while some portions of each site area are situated on undisturbed landscapes, neither site appears to represent significant or long-term prehistoric or early historic use of the landscape. Both sites yielded nondiagnostic lithic debitage. Site 11CK1075, located on the historic hospital grounds, yielded the only firmly diagnostic item from either site—a bone mouthpiece of a composite pipe. The mouthpiece has a tenon that may be threaded, though it is partially covered by the wood pipe body. Mouthpieces of this type were popular around the end of the nineteenth century; the nickel-plated ferrule was of a less expensive nature, consistent with the lower economic status of the early hospital guests.

### Calumet-Saganashkee Bicycle Trail, Cook County

Phase I survey of the 15.6-mile long, 30 meter-wide, Cal-Sag bike trail was begun in

2010 (ISAS Project Log #10165). The project corridor begins near the Cal-Sag marina at the end of Platner Avenue in Worth then proceeds eastward to the intersection of Alice and State Streets in the Village of Burnham. The proposed trail traverses commercial, industrial, and residential properties as well as properties managed by local public agencies such as

Ceramics, Joe Louis site, Cook County.

the Metropolitan Water Reclamation District of Greater Chicago (MWRD), Alsip Park District, Needles Park in the Village of Dolton, Blackburn Park in the Village of Burnham (owned by Calumet City Memorial Park District), and Cook County Forest Preserve District. Survey for approximately 40 percent of the project corridor was completed this year resulting in the identification of two isolated find spots and the comprehensive revisit of previously recorded site 11CK284 (Joe Louis site). Joe Louis is an Oneota village site initially recorded in 1986 by Cook County Forest Preserve naturalist Ed Lace. Lace recovered (from hand unit and feature contexts) concentrations of lithic debitage, Madison triangular points, Middle Woodland and Late Fisher ceramics, bison scapula hoes, and dense concentrations of well-preserved fish and mammal bones. The NIFS site revisit yielded diagnostic lithic and ceramic materials consistent with Fisher and/or Huber occupations, as well as concentrations of mammalian, avian, and reptilian bone fragments. Portions of the Joe Louis site may contain intact and well-preserved evidence of a late prehistoric village site once located along the Little

Calumet River. Additional investigations have been recommended for the site in 2011.

## Elgin-O'Hare Expressway Addendum A, Cook and DuPage Counties

Survey was undertaken for additional right-of-way required for road improvements to ameliorate traffic flow on a local and regional basis around the O'Hare Airport in Chicago (ISAS Project Log #10088). The project area includes seven additional sections to the original Elgin-O'Hare project completed in 2009 (ISAS Project Log #09105). Phase I survey was completed for 99.7 percent of the 297.85-acre project area. The remaining 0.69 acres could not be surveyed due to denied access by landowners.

As a result of this survey, no new sites or find spots were identified, one previously recorded site was revisited, and three historic cemeteries were evaluated. No sites were recommended for Phase II testing to determine their eligibility for listing on the NRHP. Avoidance of the three historic cemeteries was recommended.

Duff Farmstead, Intersection of Galligan and Huntley Roads, Kane County



The 5,100 m<sup>2</sup> historic Duff site (11K1194) was initially identified and recorded in March 2010 as part of the Phase I survey of the FAU 4068/CH 30 project area (ISAS Project Log# 10009) in Rutland Township, Kane County. Historic documents

indicate that a structure was initially built and occupied between 1844 and 1847 by Scottish immigrants Robert and Lucy (Cumins) Duff. The home was occupied by the Duffs until the late 1860s, with the Duffs moving to Dundee by the time of the 1870 census. The home was occupied by least two tenant families over the next 20 to 30 years, with the property finally purchased by Fred Shoemacker sometime before 1900. The home

Controlled surface collections of the site (traditional and metal de-

appears to have been razed

by Shoemacker soon after 1904.

tection) yielded over 2,000 items and over 700

"nail drop-outs." Subsequent machine stripping of the site area revealed 68 features, including one fieldstone house

foundation, one bricklined cistern, one fieldstone-lined well, one brick-lined well, a subsurface pump basin with drain pipe, three undetermined features, and 61 post molds (45 square and 10 round). Fourteen features were excavated, yielding domestic

debristhat was consistent with the information recovered from archival research.

Excavation of 18.25 m<sup>2</sup> (25%) of the house foundation revealed a full basement with interior brick walls that served as structural support and partitioned the space, with two bulkheads providing separate access to the southeast corner and east entrance of the basement. The fill suggested an episode of burning, followed by the forced collapse of the remaining walls, which covered over large unbroken fragments of refined and unrefined ceramics, tableware, iron refuse such as milk cans, a spittoon, hay forks, coal shovels, brass buttons, over 50 Prosser buttons, and some more elaborately decorated glass buttons as well. Other notable items recovered from the basement include midto late-nineteenth century coins (including an 1842 Bank of Montreal token and an 1876 three cent nickel), a complete wheel-thrown ceramic wine bottle, small butter churn, a bone domino, a large hanging scale, and a small 5-shot revolver ("boot pistol"). The brick-lined cistern contained such note-



worthy material as clay pipe fragments, clothing fasteners, porcelain doll fragments, comb fragments, a pair of leather boot soles with square cob-

bling nails, sew-through ceramic Prosser buttons, and brass shank-style buttons.

Archival, architectural, and artifactual evidence all indicate that 11K1194



Longmeadow Parkway Addendum A, Kane County

This 525-acre a d d e n d u m (ISAS Project Log #10113) involves ad-

ditional land required for the proposed relocation of Bolz Road, as well as additional areas now included along Randall Road and improvements at the corridor's inter-



sections with Boyer Road, Randall Road, Illinois Route 31, the Fox River, Kennedy Drive, and East Algonquin Road. Survey corridor widths vary from 400 to 1,500 feet, with the majority of the project area limited to 400 feet in width. The project area traverses the floodplains, terraces, and uplands situated on both sides of the Fox River. No new sites were located during this survey; however, 11 sites were revisited (three prehistoric, four historic, and four prehistoric/historic). Of these, five prehistoric and/or early historic sites located along the bluff top above the Fox River have been recommended for further investigation.

### Millburn Bypass, US 45 (IL 173 to IL 132), Lake County

This 330-acre project involves the potential bypass of the high traffic US Route 45 corridor around the historic town of Millburn (now part of the Village of Old Mill Creek), centered at the Grass Lake Road and Millburn Road intersections, and extending north to south from IL Route 173 to IL Route 132 (ISAS Project Log #09093). This project has been developing for the past three years and has culminated in the current addendum that has minimized the project area to a corridor that remains 150 feet from the centerline of US 45 and expands at the edge of the Millburn Historic District, which continues to be considered for multiple bypass routes both to the east and west of the historic downtown. Phase I

survey identified nine sites, seven of which consisted of a single historic component and two sites that had both historic and prehistoric artifacts. With no diagnostic prehistoric artifacts and historic assemblages of broad temporal affiliations that were no earlier than the Civil War era, none of the sites identified outside of the historic district of Millburn have been recommended for Phase II testing.

Downtown Millburn was considered as a whole, with shovel tests completed within the historic district in various locations around selected historic homes, to evaluate the potential of intact archaeological deposits within these town lots. With structures built as early as 1856, the homes in downtown Millburn represent several architectural styles popular in the mid- to late-nineteenth century, including Greek Revival, Italianate, Queen Anne, and Gothic. The lot surrounding the Samuel Smith House was the test lot evaluated for resource potential in the downtown district, including a back 1-acre lot with a small 1½ story gabled barn built around 1900. High interval shovel testing recovered artifacts consistent with the mid- to latenineteenth century occupation of the town.

The preservation of Millburn's downtown district in a condition that is relatively similar to its initial nineteenth century development is unique for this area of the state. As an outlying community of the greater Chicago metropolitan area, Millburn represents one of the early communities established in this

region that set the stage for the continued growth into the suburban neighborhoods of the late twentieth century. Millburn, however, was little altered from its nineteenth century beginnings and now stands as a unique historic community amidst the growing suburban neighborhoods of Lake County. Should later developments with the Bypass project impact any part of the historic downtown district, further investigation of those areas is recommended.

### **Old Millburn Burying Grund**

NIFS conducted archival document research, informant interviews, and a magnetometer survey in order to identify the boundaries of the Old Millburn Burying Ground in Lake County. As a result of these investigations, cemetery boundaries (with a 50-foot buffer) were clearly identified, allowing for avoidance of the area by IDOT's proposed US Route 45 Millburn Bypass Project (ISAS Project Log # 09093).

The 1.5 acre Old Millburn Burying Ground, now located within a cultivated field, may have been used as early as 1845, with at least 91 individuals interred in the cemetery by the mid-1860s. Circa 1867, attempts were made to remove all of the burials and reinter their remains in the New Millburn Cemetery located one mile to the southeast. However, it is unlikely that all graves were moved and/or that all the contents of any particular

continued on page 28

## **ISAS Volunteers-**

Raising public awareness of Illinois' archaeological resources is an important component of ISAS's mission. Staff members present public lectures; guide tours of archaeological sites and lab facilities; introduce children to archaeology and archaeological discoveries at Scout meetings, schools, and libraries; teach courses to retirees; identify and document artifacts for avocational archaeologists; assist in the identification and preservation of endangered archaeological sites; and contribute articles and interviews to popular media.

- **1** Television interview Busey Farmstead
- 2 Dig It Champaign Public Library Children's Program
- 3 Don Moyers Boys and Girls Club Program
- 4 Fieldtrip Delhi Baptist Church Home School Cooperative
- 5 Meeting with avocational archaeologist
- 6 Artifact identification/documentation
- 7 Fieldtrip Delhi Baptist Church Home School Cooperative
- 8 Television Warsaw Forts
- **9** Artifact identification/documentation
- **10** Living Off the Land Archaeology Awareness Month poster
- **11** Artifact identification/documentation
- 12 Fieldtrip Delhi Baptist Church Home School Cooperative

- 13 Lincoln Trail School Service Day
- 14 Tour of the Central Illinois Field Office
- **15** Presentation to Ojibwe Cadotte site, Chequamegon Bay, WI
- **16** Fieldtrip Delhi Baptist Church Home School Cooperative
- **17** Artifact identification/documentation
- **18** Opening of Keogh Effigy Preserve, Jo Daviess County
- **19** Next Generation School program
- 20 Fieldtrip Delhi Baptist Church Home School Cooperative
- **21** Forest Park Library collection and documentation
- 22 Lincoln Trail School Service Day
- 23 Lincoln Trail School Service Day





## **The Henry Christopher Site**

Galena's storied past, famous citizens, and associated architecture has been the topic of much study and forms the bedrock of the town's identity and thriving tourist industry. As this narrative has

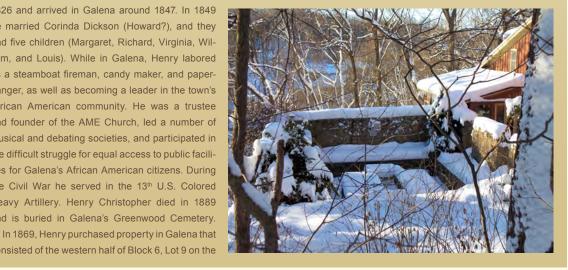
been honed and commercialized over the decades, certain important past residents have been dropped out of the developing story line. These lost citizens include African Americans who had a thriving community here in the mid-nineteenth century. With two churches and a variety of occupations, Galena's African American citizens were vital participants in the development of the community we know today. Recognition of their contributions to the growth of Galena is long overdue.

One of Galena's most prominent African American citizens was Henry Christopher. Henry was born a slave in Virginia in

1826 and arrived in Galena around 1847. In 1849 he married Corinda Dickson (Howard?), and they had five children (Margaret, Richard, Virginia, William, and Louis). While in Galena, Henry labored as a steamboat fireman, candy maker, and paperhanger, as well as becoming a leader in the town's African American community. He was a trustee and founder of the AME Church, led a number of musical and debating societies, and participated in the difficult struggle for equal access to public facilities for Galena's African American citizens. During the Civil War he served in the 13th U.S. Colored Heavy Artillery. Henry Christopher died in 1889 and is buried in Galena's Greenwood Cemetery.

consisted of the western half of Block 6, Lot 9 on the

corner of Wight and Dodge Streets. Here he occupied a cabin with his growing family. During the fall of 2010, Scott Wolfe (founder of the Galena African American Heritage Foundation) and Phil Millhouse (ISAS-NIFS) conducted three transects of shovel tests across the Lot 9, which is now a manicured lawn. The shovel tests revealed glass, square nails, faunal remains, a pipe bowl fragment, and ceramics indicating an occupation restricted to the mid-late nineteenth century. From this preliminary work it is assumed that these material remains derive from the occupation of Christopher family homestead as there were no structures on this portion of the lot prior to or after the Christopher occupation. It is hoped that future work such as remote sensing will illuminate more details on the urban homestead of Henry Christopher and his family. As part of this work the location of the two African American Churches (AME and Baptist) were also documented



disinterment were successfully recovered. Therefore, we have recommended that any future ground-disturbing activities within or near the cemetery (other than the ongoing field cultivation) should be preceded by field investigations by a qualified physical anthropologist.

### Richmond Bypass/IL 31 to US 12, **McHenry County**

Phase I survey of the US Route 12 Richmond Bypass (ISAS Project Log #09073) was conducted over a span of three months beginning in mid-May. A total of 1,312 acres were surveyed using a combination of pedestrian survey and shovel testing; this resulted in the identification of nine new archaeological sites and six isolated find spots. Six of the new archaeological sites are small prehistoric lithic scatters, none of which was substantial enough to warrant Phase II investigations. Diagnostics located included one Early Woodland hafted biface base and one Late Woodland triangular projectile point. The remaining three new historic sites represented habitations either too recent or too heavily disturbed to warrant further work.

St. Josephs Cemetery, established in 1873, lies within the present project limits and NIFS has recommended the project be amended to avoid this cemetery. Despite covering a large area, the project identified a paucity of both prehistoric and historic occupation in this area of northern McHenry County. The abundant resources available at the nearby Chain O'Lakes region may have drawn population away form the survey corridor. Dense occupation of this area did not begin until European settlers began draining wetlands and planting new agricultural crops amenable to the glacial sediment overlying the area.

95th Street Bridge Site, 95th Street Extension from Naperville Plainfield Road to Boughton Road, Will County

Site 11WI897 was tested in conjunction with the extension of 95th Street, including construction of a bridge to carry 95th Street over the DuPage River (ISAS Project Log #03139). The site is located on a low terrace above the river in northwestern Will County. Previous investigators recommended further work at the site prior to bridge construction. In order to address this recommendation, it was deemed appropriate to use machine scraping to excavate a large block within the fenced portion of the ROW to look for intact living surfaces or features below the disturbed plow zone. This involved excavating a 910 m<sup>2</sup> area (45% of accessible site area in the ROW, 10% of total site area) on property owned by the Forest

Preserve District of Will County. A small collection of artifacts was made from the base of the plow zone. Despite this material, no substantial intact A-horizon was noted below the plow zone and no obvious features were identified. The east wall profile indicates a deep plow zone resting on gravel deposits, transitional soils, or directly on the clay subsoil. Due to the results of past work and these recent investigations, it is our opinion that no further work is necessary at 11WI897 and this corridor can be cleared for construction.

### 11WI3630, I-55 Improvements, Will County

Site 11WI3630 was originally located in fall 2009 during a Phase I survey for the I-55 Improvements project (ISAS Project Log #09197). The 8,300 m<sup>2</sup> site is situated on a terrace above the western bank of the Kankakee River. Controlled surface collections indicated a relatively light artifact scatter over a rather extensive area. Machine stripping within cultivated areas produced only one subsurface feature, which yielded only lithic debitage. A Late Archaic (LeCroy cluster) and a Late Woodland (Klunk) point were recovered from hand unit excavations within wooded areas along the river terrace. The hand units produced the most concentrated areas of artifacts, though the upper levels of the matrix were primarily comprised of fill/berm from the very rocky silt-sand loam of the agricultural field. A local resident shared a collection of artifacts from that field, including an array of points diagnostic of both the Archaic and Woodland periods. Given the apparent absence of intact subsurface deposits, no further work will be conducted on 11WI3630.

#### **DISTRICT 2**

### Spring and Gear Street Improvements in Galena, Jo Daviess County

NIFS conducted a Phase I archaeological survey within the municipal boundaries of Galena in conjunction with road widening and improvements along Spring (US Route 20) and Gear Streets (ISAS Project Log #10074). Approximately 50 percent of the project falls within the limits of the Galena Historic District, which includes over 80 percent of the original city and includes close to 1,000 commercial, residential, and industrial structures.

The initial Phase I investigations indicate that the Spring and Gear Street corridors are stratigraphic interminglings of natural and cultural deposits that reflect changing land use patterns and inhabitants. The





Fieldwork, 110G234, Ogle County (above); shovel testing, Henry Christopher homestead in Galena, Joe Daviess County (bottom left); Kirk point, 8,000 B.P., Ogle County (bottom right).

survey located evidence of the successive waves of Native American, African American, and German people who occupied this neighborhood. Shovel testing results support the conclusion that substantial archaeological deposits may lie below the property parcels within the project area and that future archaeological investigations will need to be incorporated into the project planning and construction phases.

## IL 2 Widening Along the Rock River, Ogle County

During November and December of 2010, NIFS undertook Phase III testing at

sites 11OG279, 11OG272, 110G131, 110G234, 11OG292, and 11OG15. This work was conducted in anticipation of widening Illinois Route 2 along the west side of the Rock River between Oregon and Byron in Ogle County (ISAS Project Log #02071). The work is the culmination of a long history of archaeological survey and testing projects that include amateur investigation, university-sponsored work and CRM-related Phase I surveys and Phase II testing projects.

Sites 110G279, 110G272 and 110G131 were machine scraped, and no subsurface features were located.

The project will also impact the hill slope immediately below the Camling-Cline Mound group (11OG15). Shovel testing along the slope base (11OG292) yielded a small number of flakes from what appears to be secondary wash deposits from higher elevations. A single transect of shovel tests within the ROW along the eastern edge of Camling-Cline located several pieces of debitage. Precautions will need to be taken when constructing the retaining wall along the west side of IL 2 (the eastern edge of the Camling Cline Mound Group) to prevent erosion and insure stabilization of the site.

NIFS also machine scraped a 1,917 m<sup>2</sup> area (6.2% of total site area, 28% of the site area within the ROW) of site 11OG234 which sits on a low terrace at the base of the hill containing the Camling-Cline Mound group. The machine work uncov-

ered a single Late Woodland feature and deeper Early Archaic assemblage. The Early Archaic assemblage occurs as clusters of debitage, end scrapers, broken bifaces and Kirk Points. The excavation was in progress when winter hit and will be completed



## **Spring and Gear Street Improvements in Galena**



The NIFS office conducted a Phase I archaeological survey within the municipal boundaries of Galena. The survey was to be conducted in areas impacted by road widening and improvements along Spring (US Route 20) and Gear Streets. Approximately 50 percent of the project falls within the boundary of the Galena Historic District, which includes over 80 percent of the original city and includes close to 1,000 commercial, residential and industrial structures. Galena is often called a crown jewel of successful historic preservation efforts and this project has the potential to add significantly to our knowledge of this truly unique Illinois town.

Galena was settled early in Illinois history as a mixed Native American and Euro-American trading community focused on lead mining. Subsequently, it became a mining boomtown, well ahead of the advancing frontier of Euro-American settlement. The physi-

cal geography, economic orientation, and diverse population led to the construction of a cosmopolitan and compact municipality that is literally stacked on the hillsides above the Galena River. The spectacular scenery, rich heritage, and striking architecture now make the town the second most popular tourist destination in the state.

Despite the rich past of the town, relatively little historic archaeology has been done. Exceptions are Wayne Horny's early study of Galena pottery and Floyd Mansberger's pioneer excavations in the area. Although seemingly well known, much of Galena's complex history is literally buried in the yards and green spaces of the modern town.

Initial ISAS investigations indicate that the Spring and Gear Street corridors are a complex stratigraphic mix of natural and cultural deposits that reflect the changing land use patterns and ethnic occupation of Galena. Local

artifact collections indicate prehistoric activity in the form of Middle Archaic side notched points; additional pre-contact native sites are undoubtedly present in the heavily wooded environs. The Meskwaki mined and smelted lead in the vicinity on a large scale, so there may also be remnants of post-contact Native American activity in the area. It is likely that the numerous natural springs in the area, which attracted Euro-American settlers (including German brewers), had previously been utilized by Native Americans. The earliest Euro-American occupants (with records) were probably a mix of southern Americans, Yankees, and Irish and other groups from the British Isles. Structure names reflect this in the Harris, Shannon, Desmond, Dempsey-O'Malley and Morrison houses.

By the mid-nineteenth century Spring Street was becoming the center of one of several German neighborhoods in Galena, complete with two substantial breweries. Again, the ethnic make-up is reflected in the names of the Meller-Eulberg (Fulton), Specht, and Wetzel-Spier (City) breweries, as well as the Berger, Weber, Schwab, Doplar, Henning, Einsweiler, and Friesenecker commercial build-

ings and houses. The area was also a

center of a substantial pre-Civil War African-American community. The intersections of Spring Street with Dodge and High Streets was a focus of residential activity and the two African-American churches (AME and Baptist) were located on the bluff top overlooking this neighborhood. As many of the descendents of the Irish and German settlers stayed in the area, the historical legacies of these communities have been passed into the modern narrative of the town. However, the African-American community largely dispersed by the early twentieth century and their history in Galena has been largely forgotten. This archaeological survey could help bring their important historical

presence and contributions to the light.

Economic practices and geography have also played a key role in forming the deep archaeological record here. Early mining and cutting of timber for the lead smelters led to complete deforestation of the surrounding area. With such steep terrain, there was massive erosion that eventually silted in the Galena River and choked off river traffic. As early as the late 1820s, residents were complaining to government officials that there was no timber within a sensible distance for use. This deforestation was followed by the opening of agricultural fields, which severely exacerbated the process. Because Spring Street is actually a deep ravine, it was a prime conduit for these erosional deposits, as was reflected in the shovel tests conducted by the NIFS crew. Many of the shovel test profiles indicate alternate layers of domestic midden or building rubble separated by accumulated slope-wash deposits. In some areas, historic artifacts and building debris were located 90 cm below the modern surface. Deeper testing with hand augers was prevented by the presence of brick or broken pieces of residual dolomite derived from either the bluff slopes or previous cultural activities. Although some of these deposits may represent redeposited debris derived from dumping refuse into the often-flooded stream/ravine bed along Spring Street, it can be assumed that at least some of it represents intact midden deposits related to specific residential occupations or commercial activities.

The shovel testing evidence, along with local documentary evidence and



oral accounts of finding deeply buried foundations, supports the conclusion that substantial archaeological deposits may lie below the property parcels fronting Spring Street. The situation along lower Gear Street is less well known; however, it also sits at the mouth of a ravine where there was significant pre-Civil War occupation. Although many of these deposits in the proposed ROW may be either secondary or disturbed by past infrastructure projects, the possibility of intact, significant deeply buried architectural features and/or cultural deposits must be given considerable weight. It appears at this time that future archaeological investigations will need to be incorporated into the project planning and construction phases.



during the spring of 2011. This work will provide important information regarding the little known Early Archaic period in northwestern Illinois.

### Rochelle Truck Loop Improvements, Ogle County

The project includes the improvement of Intermodal Drive, Jack Dame Road (including a new overpass), Illinois Route 38, Center Road, Thorpe Road, Gurler Road, and Brush Road to a designated truck loop (ISAS Project Log #09225). The eastern end of the project lies in the floodplain of a channelized stream to the northeast of the Kyte River. The western end of the project lies in the floodplain of the Kyte River and the artificial Beach Creek. A total of 64 acres was subjected to Phase I survey. Seven new sites (five historic, one prehistoric, and one multicomponent) and four find spots (all prehistoric) were located during the survey. No sites were recommended for further testing.

### **Central Illinois Field Station**

The Central Illinois Field Office (CIFO), directed by Dale McElrath, is based at the University of Illinois at Urbana-Champaign campus. The CIFO is primarily responsible for cultural resource compliance work in Districts 3, 5, and 7, occasionally taking on additional projects in Districts 1 and 8, as necessary. Permanent field staff includes Ian Fricker (District Archaeologist), Michael Barnes, and Matthew Cross (Assistant Crew Supervisors). Additional field personnel are incorporated on a seasonal basis.



Fieldwork, Fountain J. Busey site, Champaign County.



The US 51 South project involves the expansion of US Highway 51 (US 51) to a four-lane divided highway, from the Shelby/Christian County line at the northern end to the interchange at State Route 177 (IL 177) in the south. The project corridor stretches over 60 miles across portions of Christian, Shelby, Fayette, Marion, Clinton, Washington, and Jefferson Counties. It varies in width from approximately 985 feet at its narrowest point, to over four miles wide in the vicinity of Vandalia, Illinois. The proposed expansion will incorporate much of the existing US 51 right-of-way (ROW), although the final design will likely include bypass alignments around several municipalities. These include, most notably, Centralia, Ramsey, and Vandalia.

Expanded by the recent Addendum A, the US 51 corridor covers a total of 49,718 acres, including over 10,000 acres of municipal area. The ESR corridor encompasses 18,144 acres of high-probability area (36% of total ESR area), as defined by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420). Over half of all high-probability area within the corridor falls within Fayette County (65%; 11,709 acres) and is primarily associated with the Kaskaskia River Valley. The second largest portion of high-probability area falls within Marion County (26%; 4,774 acres).

In 2010, ISAS surveyors have continued to focus on readily accessible cultivated lands to maximize their coverage. Since the spring of 2008, surveyors have examined 8,640 acres (approximately 17% of the total ESR area) and identified 418 archaeological sites and 433 find spots. Of this total, 3,023 acres were surveyed, 150 sites were identified or revisited, and 116 find spots were located in 2010. Phase I survey in 2010 focused primarily on high-probability areas along the western wall of the Kaskaskia River valley, near Vandalia, as well as several stream crossings in the vicinity of Centralia. US 51 South is programmed for continued preliminary engineering in 2011, and ISAS plans to continue survey in the coming year.

Numerous prehistoric sites have been identified across the varied landscapes traversed by the US 51 corridor. In general, prehistoric occupation of the upland portion does not appear to have produced especially dense or complex habitation sites. Based on the results of this survey thus far, it appears that occupation of the ridged drift in the Vandalia area seems to have been significantly more intensive than that seen on the till plains underlying the majority of the project area. All of the upland sites recommended for further evaluation produced fire-cracked rock (FCR) in surface assemblages. However, no prehistoric ceramics have been recovered from any of these sites to date.

By contrast, surveyors have observed evidence of intensive, multi-component habitation on the Kaskaskia River floodplain and western bluffcrest, as well as the Crooked Creek bluffcrest north of Central City. Continued focus on these areas in 2010 led to the identification of several major prehistoric habitation sites, located on terrace deposits within the floodplain and on the bluffcrest south of Vandalia. A prominent shelf of the upland situated between the Bear Creek and Kaskaskia River floodplains, on which the Vandalia Correctional Center now sits, also appears to have been a major focus of prehistoric habitation. In addition to standard survey techniques, geomorphological testing will be employed to examine floodplain and bluffbase deposits for buried cultural materials in the Kaskaskia River Valley.

Recovered historic assemblages range from a few non-diagnostic pieces of ceramics and glass, suggestive of incidental deposition or very short term site use, to large collections of habitation debris indicating long-term occupation, with diagnostic artifacts dating from ca. 1830 through at least the early decades of the twentieth century. Analysis and preliminary evaluation of historic components is underway, and recommendations will follow.

## The Fountain J. Busey Site

In the fall of 2009, the Central Illinois Field Office of ISAS conducted cultural resource reconnaissance for a proposed pedestrian and bicycle path along the west side of High Cross Road in Urbana, Illinois. As a result, surveyors identified an early to mid-nineteenth century pioneer farmstead site, designated 11CH591. In addition to the site's age, placing the occupation shortly after the initial Euro-American settlement of Champaign County, 11CH591 also bears a possible connection to one or more members of the Busey family, namely Fountain J. Busey and his father, Matthew Elbridge Busey.

From the earliest settlement period to the modern day, members of the Busey family have been among the most prominent and influential members of the greater Champaign-Urbana community. The first of these to arrive was the extended family of the aforementioned Matthew FIbridge Busey, who immigrated to the area in 1829 from Shelby County, Kentucky. He went on to become a successful farmer and prolific landowner in the area. His son, Fountain, would eventually become one of the founders of nearby Sidney, Illinois.

dence was examined in order to reconstruct the site history. most of which is available locally in the Champaign County Historical Archives, housed at the Urbana Free Library or at the County Re-

corder's office. According to the available records, the property on which the site is located was first purchased by Fountain J. Busey in 1836. Fountain sold the property in 1840, and the parcel was later purchased by Matthew E. Busey in 1843. He would retain ownership of the property until 1870, when the parcel was sold to J. H. Morris.

During the course of the initial survey, it became clear that portions of 11CH591 would be impacted by the proposed transportation improvements, and that the site would face additional impact from residential development within the next several years. Given the site's potential importance to local history, ISAS concluded that further study of 11CH591 should be undertaken in advance of planned development. An ISAS field crew would return in the spring of 2010 to conduct data recovery excavations, under the auspices of IDOT and the City of Urba-

A variety of documentary evi- and in cooperation with the land- information about the people who owner, Menard Incorporated.

> The excavated area, which covered approximately 1,300 m2, contained a total of four historic period features. The first of these, Feature 1 (F1), was a small rectangular cellar.

The small size of the cellar pit and lack of a "keyhole" entrance ramp suggests that this was a "trapdoor" cellar, located directly beneath the cabin floor. A modest domestic assemblage was recovered from the cellar, including decorated earthenware, crockery, and bottle fragments. This was heavily intermixed with building debris, such as brick, square nails, and window glass. The concentration of building materials is not surprising, given the feature's likely location beneath the cabin.

Feature 2 was a brick-lined well, which yielded a fair amount of domestic material, including a variety of decorated earthenwares. Decorative motifs included annular, hand-painted, blue-edged, and sponge-decorated. Other notable artifacts include a slate pencil fragment and a bronze Immaculate Heart of Mary medallion. Objects such as the latter provide

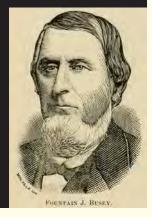
lived at the site. In this case, we can infer that at least one of the occupants followed the Roman Catholic tradition. The remaining features include a refuse pit and a single post mold.

Overall, the material assemblage dates circa 1845-1870. This clearly post-dates the initial ownership by Fountain J. Busey. It does, however, encompass the 27-year period during which Matthew E. Busey owned the property. However, 11CH591 does not appear to represent the farmstead of a large-scale landowner and successful farmer, such as Matthew E. Rather, the small number of features found and the limited artifact assemblage both suggest an occupation that was limited in scope, such as the residence of a hired hand or tenant farmer.

Although 11CH591 bears only a secondary connection to either member of the Busey family, its importance as a working class residence of the period is not diminished. Examination of this site and others like it affords insight into the poorly documented lives of working class men and women who, through their efforts, helped to lay the foundation archaeologists with more specific for the Champaign/Urbana community.







In 2010, CIFO submitted 50 completed survey reports, as part of our statewide survey efforts, and continued Phase I reconnaissance of FA 322/US 51 (US 51 Expansion). Other notable fieldwork includes excavations at two historic farmsteads: the Fountain J. Busey site and the Seibert site.

Throughout the course of the year, CIFO personnel submitted 93 sites in Fayette and Shelby Counties to the Illinois archaeological sites database, based on data compiled

by area avocational archaeologist, Mark Hanft. The new data provided by Mr. Hanft is of particular significance, in that it represents a region of Illinois that has received relatively little attention from professional archaeologists. The CIFO was immediately able to put this information to good use, as several of these sites are located in and around the US 51 survey corridor.

The CIFO also conducted a variety of other public outreach in 2010. In the spring,

Ian Fricker and Mark Branstner were interviewed by the Champaign-Urbana News Gazette, as well as WCIA Channel 3 and WAND Channel 17, during test excavations at 11CH591. Also in the spring of 2010, Ian Fricker identified an Early Archaic Hardin Barbed point found by Autumn Letterlethe 11-year-old granddaughter of Marlo Letterle, a landowner contact for the Eldamain Road extension project in Kendall County. Autumn found the point in a pasture while

## Seibert Site St. Clair County

In 1988-1989, archaeologists from Southern Illinois University at Edwardsville (SIUE) conducted archaeological reconnaissance and testing related to the Scott Joint-Use Archaeological Project (SJ-UAP). This led to the identification and testing of 11S801—then named the Seibert Site—a historic period Euro-American farmstead, continuously occupied from the 1830s to the late twentieth century. At the time of the SIUE survey, the site consisted of an early twentieth century residence and ten outbuildings. although it was further noted that the property had been occupied as early as the mid-1830s, and that a structural presence under different ownership had been depicted on various maps, dating from at least 1863 through the early twentieth century. No archaeological investigations were undertaken at that time.

In 1989, the SJ-UAP returned to the site and conducted both pedestrian reconnaissance of the surrounding fields and limited testing of the areas surrounding the still extant structures, which revealed the presence of

what was likely to be an intact pre-Civil War component within the farm lot. Additional documentary research determined that the site corresponded to the farmstead of one Ledergerber, a Swiss immigrant who arrived in the Shiloh Valley in 1833 and occupied the site from at least 1837–1860. The property was purchased in 1861 by another early St. Clair County resident, Hiram Pierce, whose family retained possession of the property through at least 1901. Further research conducted by the CIFO would later determine that the property was initially purchased from the federal government in 1814 by David Everett and Jesse Walker. Given the presence of a relatively undisturbed farmstead with two clearly discernible occupations relative to the early settlement history of St. Clair County, 11S801 was determined to be potentially eligible for nomination to the National Register of Historic Places.

In 2010, it was decided that activities at Mid-America Airport would require the removal of the prominent hill on which 11S801 is situated. In anticipation of that removal, Charles Witty of the ISAS American Bottom Field Station oversaw mechanical stripping of approximately 5,329 m² of the designated site area, with particular emphasis on the area where SIUE personnel recovered early-middle nineteenth century cultural materials. The preliminary mitigation effort revealed the presence of a substantial ca. 1820–1860 material culture assemblage associated with a relatively large number of discrete subsurface features, with minimal evidence for serious impacts to the early components from later nineteenth and twentieth century farmstead activities. The fact that most of the late nineteenth and twentieth century farm development was segregated from the approximately one-acre farmhouse yard no doubt contributed to the preservation of these early features.









From June to September 2010, excavations were conducted at 11S801 by a field crew from ISAS's Central IIlinois Field Office, under the direction of lan Fricker, with oversight by Mark Branstner. During this period, a total of 55 features and 86 postmolds were defined, tested, and/or fully excavated. These included at least two key-hole cellars, several cisterns, wells, a bricklined privy, several other presumed privies, miscellaneous pit features, and a wide variety of postmolds. As most of the features appear to predate the Civil War, it is possible that several related households are represented on this single farmstead.

Temporally diagnostic ceramics and glass were heavily dominated by types from the pre-Civil War period, with a large number of ceramics attributable to the 1820s and 1830s, including late creamware (CC), pearlware, and whiteware. Decorative motifs included green and blue rococo edged ware, Staffordshire blue and other colored transferprints, broad-brush

and middle period handpainted wares, and dipt/annular wares with fancy slip-decorations. Less well represented were a relatively small number of early molded ironstones, suggestive of the ca. 1845-1860 period. The majority of the recovered artifacts can be attributed to the pre-1861 Ledergerber occupation, although the relatively large pre-1830 ceramic component suggests that an earlier occupation of the site may have occurred, most likely related to either or both of the original landowners, Everett and Walker. Field observations indicate that this earlier component is largely contained within a discrete cluster of features in the northeast and north central portion of the excavated area. The general paucity of post-1861 material culture suggests that the refuse disposal patterns during the subsequent Pierce occupation were significantly different than that of the preceding period, and should allow the segregation of both artifacts and features into one or the other of the two occupations.

The excavation of major portions of the Seibert Site (11S801) has provided a highly significant new look at the early settlement of this portion of St. Clair County, with particular reference to a prominent and apparently, highly successful Swiss farmer. Although this region is well known for its early German settlement, particularly with respect to middle-income and professional expatriates who arrived in the years preceding the pan-European uprisings of the late 1840s, the role of the German-speaking Swiss settlers is significantly less well documented. The opportunity to investigate the lifeways of this particular immigrant family therefore represents an important opportunity to expand our knowledge of this otherwise overlooked period in the history of southern Illinois.

riding her horse, Maya. Identification of the point led to a meeting with Marlo and Autumn and an interview with the Kendall County Record (in which Fricker was completely upstaged by Autumn and Maya. First rule of show business: don't work with kids or animals). The site, named "Maya's Moment," has also produced a Late Woodland triangular arrow point since the interview.

### Western Illinois Field Station

The Western Illinois Field Station (WIFS) has offices in Jacksonville and Macomb that are directed by Robert N. Hickson and David J. Nolan, respectively. In addition to the aforementioned, Richard Fishel (Project Archaeologist) is responsible for many of the larger testing and excavation projects conducted in IDOT Districts 4 and 6. Susan Nolan and Rose Smith currently function as the Lab Supervisors/Office Managers for the Macomb and Jackson-

ville facilities, respectively. The WIFS staff consists of both full-time employees and a small but fluctuating number of seasonal or part-time help. The former consist of Trudi Butler (Analytical Assistant), Jennifer Edwards-Ring, Bob Monroe, Jim Pisell, and Dan Smith (Statewide Surveyors/Crew Chiefs). Field and lab personnel include Sarah Baylor, Tim Boyd, Merih Ghebregiorgis, Eric Hartzold, Lauren Fitts, Devan Forney, Gene Keithley, Diann Sugden, Alexis Volner, and Mike Welty. Macomb is also the location for one of the two ISAS floatation-processing facilities in the state.

In 2010, the WIFS undertook formal Phase II and Phase III investigations at twelve different archaeological sites throughout the western part of the state, including several large-scale excavations that kept the field crew incredibly busy for nearly the entirety of the spring and summer. These investigations are briefly summarized below, along with notable research projects. Our Phase

I survey efforts took us into nearly every county in the western part of the state. In the lab, our small-sized analytical team completed the initial inventory of several sizeable excavated collections, including the Marseton II (11MC71) features and the Marlin Miller (11HA318) site materials. In addition, 43 Phase I Archaeological Survey Short Reports were submitted to the IDOT during the year; three Archaeological Testing Short Reports and four larger Contract Completion Reports were also sent to CIFO for review over this same period.

Despite the unusually hectic schedule, a number of the WIFS staff also gave presentations about archaeology to various school and community groups, and participated in a variety of other public and professional outreach activities. Among these, in late May, David Nolan once again co-directed a public walking tour of mounds in the Indian Mounds Park group in Quincy, Illinois that was led by Steve Tieken (NAAI). One of the

## The Last Village of the loway Tribe

In November, several ISAS-WIFS staff volunteered time to help Cindy Peterson of the Iowa Office of the State Archaeologist (OSA) with ongoing research at the Iowaville site (13VB124) near Selma, Iowa. This site is the location of the last major village of the historic Ioway tribe in the state that bears their name, dating from ca. 1765–1820. Although Iowaville was initially recorded 40 years ago, the 2010 OSA investigations represent the first professional excavations ever undertaken on this historically significant site (http://www.uiowa.edu/~osa/IAM/2007Ioway/iowaville.htm). These grant-funded investigations provided an opportunity for individuals from native, amateur, and local communities to work together with professional archaeologists on an important aspect of Iowa history. It also marked the continuation of informal research collaboration between the OSA and ISAS that began during the Warsaw Forts study.

For two of our staff, the work at lowaville also represented a homecoming of sorts. Richard Fishel worked for the General Contracts Program at the OSA between 1993 and 2002. In fact, he mapped and collected the lowaville site as part of a damage assessment study the OSA conducted for the State Historical Society of lowa following the Great Flood of 1993. For David Nolan, lowaville provided an opportunity to return to his thesis research, which involved an archaeological search for the location of a western Illinois loway village occupied immediately preceding the tribe's move to the Selma area.

The OSA investigations consisted of wholesale mapping and remote sensing, as well as targeted hand excavations, that were undertaken to assess the state of preservation and overall community organization or layout. The project demonstrated that the site was remarkably intact, despite constant cultivation and intensive collection by local individuals. The hand excavations produced evidence for a number of large storage features, including an incredibly rich, bell-shaped facility with stockpiled tools still cached or hidden within the outer ring of the pit. The historic artifacts emanating from this particular feature read like a trading post stock inventory, with multiple examples of gun barrels, metal axe heads, gunflints, glass trade beads, kettle parts, trade silver, and a variety of ornaments. Another large, deep pit produced incredibly well preserved animal bone, including elements from bison, elk, bear, deer, and pig, but far fewer historic objects aside from small glass seed beads. This work brought the community together for a common purpose, a shared interest in the history of lowa and its native peoples. One of the most rewarding aspects of the project for the ISAS staffers was getting an opportunity to meet and work with a tribal member who was a direct descendent of people who actually lived in the village. The lowaville site materials are currently being processed at the OSA in advance of report preparation and public dissemination. For more information about the OSA program and activities visit their web site at http://www.uiowa.edu/~osa/.







highlights of the tour was the participation of several tribal representatives from the Cherokee, Nueta (Mandan), and Potawatomi (Prairie Band) nations. The day was filled with a shared sense of community and was capped off by a picnic and traditional pipe ceremony. Trudi Butler and Susan Nolan also "wo-manned" a table about historic archaeology for the Good Old Days Mini-Fair at the Illinois Veterans Home in Quincy. Rob Hickson and Devan Forney gave a site tour of 11JY582 to a large Home School Cooperative group from the Delhi, Illinois area during our summer excavations for the FAP 310/US 67 Project in Jersey County.

#### **DISTRICT 4**

#### Veterans Drive Extension, Broadway to Sheridan Avenue Segment, Tazewell County

The proposed project (ISAS Project Log #03152) involves the construction of a new five-lane roadway, extending from the existing Veterans Drive terminus at Broadway Avenue in Pekin, Illinois to Interstate 474, a distance of approximately 4.5 linear miles. The particular construction segment under consideration begins at Broadway Avenue and terminates to the north at Sheridan Road, encompassing approximately 0.75 miles of completely new alignment. ISAS personnel originally surveyed this part of the roadway in 2004 as part of a broad corridor study for the proposed project. Six of the 46 original sites that were documented were located within the Broadway to Sheri-

dan Road portion of the corridor, but only one of these, 11T466, proved to be situated within the final project alignment. This light density upland lithic scatter was recommended for Phase II testing due to the relative abundance of fire-cracked rock (FCR) and the recovery of an Archaic corner notched point. ISAS personnel undertook Phase II testing at the site over a two-day period in early November. These investigations consisted of a general surface collection and the excavation of five narrow exploratory machine blocks that collectively examined 180 m<sup>2</sup> (ca. 10%) of this small-sized, serially utilized till plain camp site. This work documented that 11T466 was largely plow-deflated and also disturbed by several extensive, buried gas pipeline trenches; no

evidence for any subsurface features or intact midden was found. Since no National Register of Historic Places (NRHP) eligible archaeological deposits were identified, cultural resources clearance was recommended for the site and corresponding construction segment in a summary memo sent to the IDOT. An ATSR is in progress that details the results of this work.

#### **DISTRICT 6**

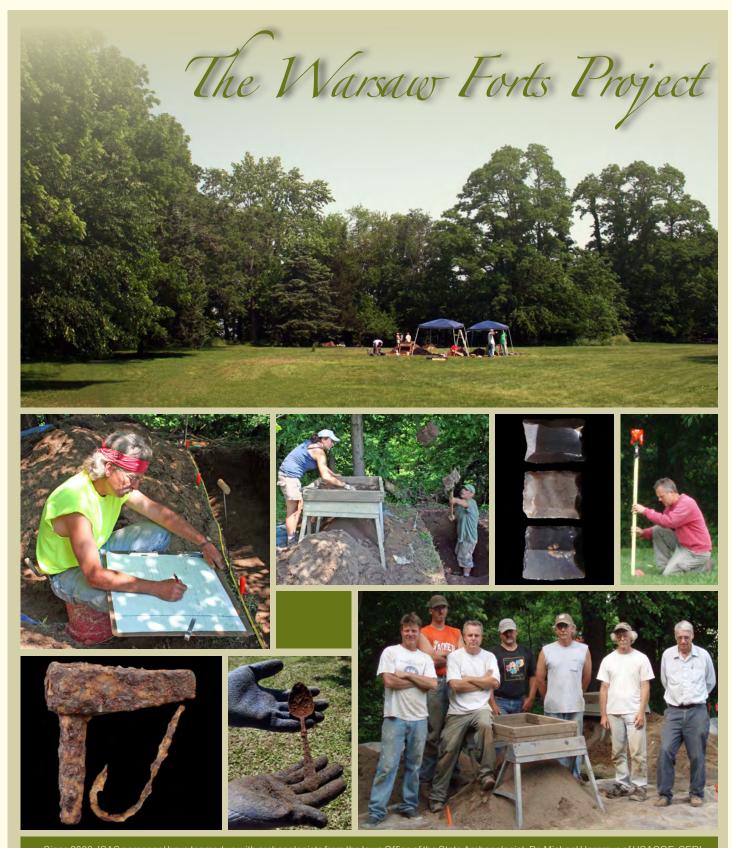
#### FAP 310/US 67 Arenzville Road to 1.8 miles East of IL 100, Morgan County, Illinois

This project (ISAS Project Log#04066) comprises yet another construction-letting segment for the major four-lane highway that will ultimately link Alton and Macomb, Illinois. This particular section begins at the Arenzville Road northwest of Jacksonville, where the existing bypass around the west side of that community currently terminates, and extends approximately seven miles to the west through the northern edges of Chapin and Bethel, Illinois. The proposed roadway generally parallels and incorporates the existing US 67, which follows an earlier nineteenth century transportation corridor that crossed flattened to slightly rolling upland terrain. Archaeological surveys undertaken by Center for American Archeology (CAA) and ISAS personnel identified eight potentially significant nineteenth century historic habitation sites that fell within the final project alignment. These sites were recommended for further evaluation/excavation prior to construction; several of them also have evidence for minor prehistoric components. Two of the eight properties were evaluated this year after being purchased by the State; the remainder will be examined in 2011 once they are acquired.

Soon after the winter thaw, ISAS personnel carried out limited machine scraping at the Nancy French site (11MG269) to examine the area where a broken tombstone was found during the original CAA survey; this spot generally corresponds to the location of a small family plot depicted on nineteenth century historic maps. Remote sensing work undertaken by Tom Loebel of the University of Illinois-Chicago in 2009 identified several interesting subsoil anomalies in this same area but no actual evidence for graves was found in the 228 m<sup>2</sup> that were exposed with a backhoe in 2010. These negative results provided corroborative evidence that supports documentation and personal stories that were graciously provided to us by the French-Becker family indicating that the six individuals buried in their family plot (three adults and three children) were moved to Diamond Grove Cemetery in Jacksonville around the time that the hard road was extended from Jacksonville to Chapin (ca. 1900). The lack of physical evidence for the emptied graves suggests that the original family plot was located in the area where the pavement or ditch for US 67 has erased all evidence for the former cemetery. Based upon these results, no further work is recommended for the



Gridded surface collection, early to mid-nineteenth century L. Becker site, Morgan County.



Since 2003, ISAS personnel have teamed up with archaeologists from the lowa Office of the State Archaeologist, Dr. Michael Hargrave of USACOE-CERL, Dr. Michael Kolb of Stratamorph Inc, Joseph Bartholomew a prominent local historian with the Warsaw Historical Society, and Steve Ticken of the North American Archaeological Institute, to identify War of 1812-era archaeological sites along the Mississippi River around Warsaw, Illinois. This resulted in the identification of Fort Johnson, a hitherto unlocated fortification, which served both as a fort and eventually a cantonment for the construction of nearby Fort Edwards. Ongoing efforts during the reporting period included processing and analysis of excavated materials, several public outreach talks, a published chapter in a book on forts in the Iowa area, and a professional paper delivered at the Midwest Archaeological Conference in 2010. We consider this fort to represent a very significant cultural resource for the people of Illinois, especially with the forthcoming bicentennial of the War of 1812 fast approaching.

site. An ATSR is currently being prepared to formally document these investigations.

The L. Becker site (11MG258), an early to mid-nineteenth century farmstead located east of 11MG269, was tested and mitigated through excavation during the fall of 2010. This NRHP eligible property is also associated with the French-Becker family and may prove to be the remains of the homestead that was directly tied to the aforementioned cemetery or perhaps with a subsequent residence. The site area was initially gridded in 10 x 10 m collection units, so representative total surface and metal detector surveys could be undertaken. Based upon the density and distribution of the domestic (ceramics and glass) and structural (brick, limestone, nails) materials that were encountered, sixteen grid units (1,600 m<sup>2</sup> area) were stripped to subsoil, resulting in the identification of ten sizeable historic features and 48 possible post molds. These facilities were unevenly distributed between two spatially discreet household concentrations. Those in the westernmost cluster were shallower and more eroded but contained artifacts generally dating from the 1830s and 1840s. The easternmost concentration was much more substantial, producing the remains of a well, two cisterns, an outdoor root cellar, and a large structure basin that yielded historic material dating from the 1830s through perhaps the 1870s. These investigations were completed just before the field conditions deteriorated in November; WIFS personnel then turned their attention to processing the rather sizeable artifact collections from the site. The excavations attracted a fair amount of interest from local media outlets, with stories appearing on KHQA Channel 7—a Quincy television station—and in the *Jacksonville Journal Courier* (see ISAS web site). A final report is currently pending for 11MG258.

#### **DISTRICT 8**

#### FAP 310/US 67 Madison County Line to Delhi Bypass Segment, Jersey County

This particular four-lane construction segment (ISAS Project Log #09186) begins at the Little Piasa Creek, which forms the Madison/Jersey County line, and extends 2.5 miles northward to the point where the Delhi Bypass departs the existing route of US 67. After construction is completed, this section will provide another piece of the approximately 75 mile-long freeway system linking Alton and Jacksonville, Illinois. The Jersey County project area traverses rather rugged to level upland terrain associated with the Piasa Creek drainage system. CAA personnel originally surveyed this part of the proposed ROW in the mid 1990s but ISAS-WIFS personnel reevaluated most of the same area over the last two years.

In 2010, six sites were subjected to formal Phase II evaluation but only three produced potentially significant, NRHP eligible re-





Clinton Silt site, Jersey County.



Early- to mid-nineteenth century limestone slab drain, Clinton Silt site, Jersey County.

mains and were mitigated in accordance with the project Memorandum of Agreement (MOA). The former group consists of a deflated or redeposited Late Woodland scatter (11JY583) and two sites (11JY584 and 11JY587) that produced small numbers of historic Euro-American features but few associated diagnostic artifacts or preserved ecofacts. Although the Shangri-La site (11JY584) can be associated with low-level blacksmithing activities, less than a half dozen isolated features were found and sampled; they do not appear to be associated with a commercial operation or any obvious homestead facilities. The three remaining sites, 11JY398, 11JY582, and 11JY585, produced ample evidence for significant prehistoric and early nineteenth century historic remains and are briefly summarized later.

All of the high potential site area within the proposed ROW at the Clinton Silt site (11JY398) was stripped and excavated over a twelve week period beginning at the end of April. In all, 68 features were mapped and sampled, along with a small number of isolated post molds. The area west of US 67 produced a dense concentration of large, Patrick/Sponemann-age Late Woodland pit features that extended down the sloping portion of this bluff top landform; one of these facilities may have been used as a ceramic kiln or pit-firing facility based



Point excavation (above) and perforated disk (bottom right), Clinton Silt site, Jersey County.

upon its unusual chiminea-like internal limestone structure and the presence of abundant misfired, vitrified, and/or bloated pottery sherds. The Late Woodland assemblage is also characterized by an unusually high number of small perforated stone and ceramic disks compared to most contemporary sites from the American Bottom. The narrower project area east of the highway produced a single, arc-shaped Late Woodland pit cluster and a spatially separate early- to mid-nineteenth century historic occupation that appears to have primarily been located beyond the proposed ROW limits. The latter component consisted of only three features (a stone-lined cistern, parts of a constructed limestone slab drain, and a small [privy?] pit) and a related but disturbed sheet midden (refuse) deposit that produced a rather robust assemblage of early printed and painted whiteware sherds and related historic objects.

As is often the case, the densest and most challenging property we encountered was one of the last ones identified, due to the fact that most of the Trinity Hill site (11JY582) was buried and escaped detection during earlier surface-oriented assessments of the project

area resources. The site occupies a low bluff top or high terrace, the bluff base, and a low floodplain terrace that laps onto the foot slope portions of these older valley margin landforms. Testing documented that the upland-oriented deposits were completely

disturbed, although extensive, weakly stratified Early Late Woodland (ELW) and Archaic period habitation deposits were encountered in the bottomland portion of the site. Some parts of the Late Woodland component were buried under modern alluvium (flood deposits) adjacent to a former Piasa Creek channel; the lower portions of the deeper pit features in this area extended below the perched and unseasonably high water table for the duration of

our investigations. However, we were still able to document and remove these remains through repeated pumping, bailing, and the

determination of our mud-covered crew. We essentially were able to expose and sample the entire lowland portion of the site over a period of twenty-two weeks.

The ELW occupation was clearly larger and more substantial than the Archaic period deposits, which were limited to the bluff base fan area. The former produced approximately 150 of the features identified at

the site; these storage and cooking facilities were quite large on average and yielded dense amounts of cultural material, including well preserved animal bone and charred plant remains. Steuben/Mund cluster projectile points or knives were especially abundant in the pits, along with noded  $cord marked\, ceramics.\, Unlike\, the\, other\, two$ Late Woodland sites, the pottery found at Trinity Hill appears to have more affinities with contemporary ceramics from the adjacent parts of the Illinois River valley rather than those from the American Bottom. While the overall density and distribution of ELW pits indicates that the site consisted of multiple households, no obvious post mold patterns or structure basins were identified.

As mentioned, the remains of several overlapping Late Archaic occupations were buried within a small colluvial/alluvial fan situated at the northern valley wall. It is interesting to note that the raised portion



Mapping, Eileen Cunningham site, Greene County.

of this fan appears to have been largely avoided by the Late Woodland occupants of Trinity Hill. Based upon the excavation of a series of geo-archaeological trenches and hand units, it was determined that the Archaic cultural deposit was largely collapsed and essentially lacked stratigraphic integrity. Given this, these occupations were subsequently sampled through machineassisted excavation. Over 400 functionally and temporally diagnostic artifacts were piece-plotted and 16 pit features were identified and removed. The projectile points recovered from these contexts are similar to those found in Falling Springs, Titterington, and Prairie Lake/Kampsville phase occupations in the adjacent portions of the American Bottom and Lower Illinois River valley. The excavated sample should provide important baseline information about the use





of the lowland settings by local Late Archaic peoples who inhabited the upland interior.

The Fitzgibbons site (11JY585) consists of a series of Late Woodland pit clusters that occupy an upland ridge system that was cut/disturbed by US 67 and a number of other modern activities. Archaeological investigation of the property primarily occurred over a four-week period beginning in late March, although an additional week was also needed in August to deal with related waterline impacts. Considered as a whole, the site excavations documented 58 pit features. These facilities were distributed among three separate household clusters west of the highway and at least one to the east; several more isolated pits were also excavated. The recovered ceramics suggest at least two of the pit concentrations are attributable to Patrick-age occupation, whereas one may prove to be terminal Late Woodland based upon the recovery of a cordmarked vessel section with a smoothed rim/neck area (Bluff ware). Like the nearby Clinton Silt site previously mentioned here, some evidence for on-site aboriginal pottery manufacture was also found at Fitzgibbons.

A project summary/clearance memo was prepared in October after completing the excavations summarized above. This document allowed construction to proceed as planned within this particular letting segment. The FAP 310 archaeological investigations will be reported in more detail in several forthcoming ATSR and monograph length reports once the voluminous collections have been fully processed and

analyzed by ISAS personnel. This material will provide baseline information about a poorly known part of western Illinois that is situated between the more thoroughly studied parts of the Northern American Bottom and Lower Illinois River valley. As such, several regionally distinctive cultural complexes may prove to be definable.

### FAS 739/Eldred-Hillview Road Bridge over Cole Creek, Greene County

This project consists of the replacement of the structure carrying the Eldred-Hillview

Road over Cole Creek in the Lower Illinois River valley (ISAS Project Log #09025). ISAS personnel surveyed the requested area in 2009 and discovered 11GE630 (Eileen Cunningham), a large (16,277 m<sup>2</sup> area), multi-component prehistoric habitation site situated on a prominent alluvial fan. No direct impacts to this NRHP eligible site were anticipated as a result of replacing the bridge itself, although a narrow portion (<15%) will be negatively affected by equipment storage and the construction of a temporary run-around road to divert traffic during work activities. This particular part of the site was tested and mitigated during the fall of 2010. The hand and machine excavations exposed 1,215 m<sup>2</sup> of the uppermost three feet of fan deposits, including all of the highest potential area that was not previously disturbed by buried utilities. Sixty-five subsurface pit features with generally well-preserved plant and animal remains were identified and removed as a result of this work. Curiously, no obvious structural facilities, post mold patterns, or organic midden deposits were observed.

A minimum of four prehistoric components have been tentatively identified at Eileen Cunningham based upon variation observed in the diagnostic ceramics and stone artifacts recovered from these features. This total includes three different Late Woodland occupations (White Hall, Early Bluff, and possibly Jersey Bluff-related) and an apparently small-sized Middle Mississippian household. The latter deposits were distinctive because they were comprised



Screening for artifacts (top left) and fieldwork (bottom right), Eileen Cunningham site, Greene County.



of dark topsoil-like sediment and produced thin, well-made shell-tempered ceramics, notched Cahokia arrows, and flake scrapers. This component adds to the growing list of undisputed Middle Mississippian occupations from the Lower Illinois River valley, which at one time were thought to be rare. The analysis and dating of the 11GE630 remains will provide important new information about this component and the Late Woodland occupations of the site, helping to refine the cultural chronology of this well-studied but rather poorly reported region. A monograph length report of investigations will be prepared once the collections have been processed and analyzed.

### FAS 752/749 Illinois 3, IL 109 to South of Croxford Road, Jersey County

This undertaking (ISAS Project Log #10157) consists of widening and resurfacing an eight mile-long segment of Illinois Route 3 that extends from the IL 109 intersection westward to a point less than two miles above Grafton, Illinois. ISAS personnel originally surveyed the project area in 2001 but at that time the limits extended further south to the intersection of IL 100 in Grafton (ISAS Project Log #00076). Twentyeight prehistoric and historic sites were documented as a result, including four recommended for further Phase II evaluation because they appeared to have the potential for encountering potentially significant subsurface remains. After an extended period of inactivity, the project was shortened and resubmitted this past year with a pending construction-letting date of June 2011. ISAS personnel began reevaluating the newly redesigned project area in the fall and also undertook Phase II testing within the narrow strip Right-of-way (ROW) proposed at two of the four recommended sites. The Banded Brothers site (11JY502) produced the remains of a single bathtub-shaped Late Woodland pit feature and two dense, subsurface concentrations of Salem chert flintknapping debris within the 1,370 m<sup>2</sup> backhoe stripped area. However, the Lester Long site (11JY516) failed to yield any intact subsurface remains within the 554 m² area that was exposed down to subsoil deposits. Evidence for a variety of Archaic period components was found at Lester Long during the initial survey, including one of the first Mule Road phase points identified north of the American Bottom, but the age and affiliation of the presumed Archaic flintknapping concentrations from Banded Brothers remains speculative because no diagnostic artifacts were associated. Since floral and faunal preservation were lacking and there was little if any other potentially significant information that could be gleaned from the tested parts of either site, these properties were not evaluated for their NRHP eligibility and the ROW areas are not recommended for further work. However, it is our opinion that the site-specific tracts with the highest potential for encountering possibly significant, intact subsurface remains are located outside the planned IL3 improvements. Further evaluation of these areas will be required if they are ever threatened by future impacts or developments. ATSRs are currently being prepared to document the work undertaken at each site in 2010.

#### American Bottom Field Station

American Bottom Field Station coordinator, Dr. Joseph Galloy, directs a team of archaeologists and support staff, responsible for project survey and site investigations in the southern third of Illinois and, most importantly, the American Bottom, a region of abundant and complex archaeological resources. Charles Witty handles all Statewide Survey Division projects in District 8 and 9 and many in District 7; Patrick Durst conducts FAP 310 investigations for the Special Projects Division. Julie Bukowski is the Field Station skeletal analyst, and Miranda Yancy is the GIS specialist. The ABFS office, managed by Tricia

Wright, is based in Wood River. Kelly Arnold is the Wood River lab supervisor. Mera Hertel is the ABFS graphic designer and photographer. The field crew varies seasonally and is typically more than 50 during the height of fieldwork. ABFS also operates the Godfrey float lab north of Wood River.

In addition to Location of 1993 National Indian Ind



Location of 1993 Native remains reburial, McKendree Mound, St. Clair County.

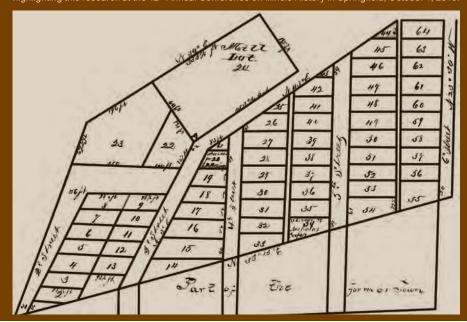
into the uplands of Jersey County, which involved Phase II and III excavations at a series of prehistoric and historic sites; and the Mississippi River Bridge Project, which includes a new bridge across the Mississippi River at St. Louis, and more importantly, the realignment of I-70 northward through East St. Louis. The I-70 realignment and associated roadwork passes through the East St. Louis Mound Center (11S706), a large Mississippian mound and town site second only in size and complexity to nearby Cahokia. Investigations at 11S706 have located hundreds of remarkably well preserved Mississippian residential and ceremonial features, discovered beneath layers of fill and rubble from late nineteenth century and early twentieth century railyards, stockyards, and factories.

The project also impacts the East St. Louis stockyards, a commercial enterprise that engendered a late nineteenth to twentieth century working class community.

### The Brooklyn Public Engagement Project

In 2010, American Bottom Field Station staff continued to perform documentary research into Brooklyn's founding and growth, focusing on the period from 1830 to 1850. These two decades encompass the town's founding as a Freedom Village occupied by freeborn and former slaves, its platting in the late 1830s, and its growth as a biracial town during a time of harsh discrimination and oppression of African Americans in Illinois. This year's efforts focused on compiling documents that had not been consulted in previous historical studies of the town, including original plats, deeds, and court proceedings. Another goal of this work was to shed light on the five white men

who owned the land where the town was platted. As a result, the previously unrecognized role of white philanthropy in the town's origins was discovered. Miranda Yancey and Joseph Galloy authored a paper highlighting this research at the 12<sup>th</sup> Annual Conference on Illinois History in Springfield, October 1, 2010.



#### **DISTRICT 8**

### Cargill Elevator Road and West First Street, St. Clair County

Archaeological investigations were conducted along First Street in French Cahokia during August and September 2010. Work was required due to proposed road improvements and was restricted to the narrow existing ROW. Following the excavation of five 1 m x 1 m hand units, machinery was used to remove approximately 50 cm of twentieth century historic fill. Below the historic fill, an intact A-horizon was encountered that contained mid-eighteenth through early nineteenth century artifacts. The A-horizon was divided into sections, hand excavated, and screened. Below it, the remnants of a probable *poteaux-sur-sol* 

# **Illinois' Lost History**



European settlement of the Illinois Territory began in the 1600s. In the 1700s, the French came to the Illinois Country, bringing the first blacks, the majority of whom were slaves. Even though Illinois achieved statehood in 1818, most counties in Illinois did not begin keeping death records until around 1870. As a result, it is difficult to track down the final resting place of one's Illinois ancestors. Taking the time to locate and restore these graveyards is a valuable part of ISAS public outreach, especially for Mera Hertel, who for the last five years has spent numerous volunteer hours documenting these sites and organizing community clean-ups.

Historic cemeteries have become increasingly vulnerable to urban sprawl, development, farming, theft, and vandalism. Many have fallen into disrepair or neglect. Historic African-American cemeteries are often more at risk of disappearance, as many of them (1) have poorly or unmarked marked graves, (2) records are rare, and (3) cemetery locations were often hidden. It is important to record these historic graveyards, not only out of respect for our ancestors, but also for the sake of history and posterity. It is, therefore, up to us to serve as the caretakers of these vestiges. Old cemeteries give us a chance to rediscover much of Illinois' lost history and to preserve it.

In the summer of 2010, Hertel along with members of the Flat Creek Missionary Baptist Church, St. Clair County Genealogical Society, Buffalo Soldiers Motorcycle Club of Southern Illinois, Prairie du Pont Levee District, the International Order of Oddfellows, and local Illinois residents spent a number of weekends pulling weeds, cutting brush, and clearing trees at the Flat Creek Cemetery on the outskirts of East Carondelet (St. Clair County). The Dupo Fire Department assisted with large brush burning. Julie Bukowski, ISAS Skeletal Analyst, lent her expertise with animal bone fragment identification. She also assisted with cemetery clean-up and headstone documentation. Volunteers who were unable to

perform manual labor at the cemetery helped out at the church preparing lunch for the clean-up crews.

The Flat Creek Cemetery (11S1782) contains the remains of predominantly black interments, estimated to number in the hundreds, and it spans approximately three acres of woodland. Due to the large scale of this project, clean-up will continue, with new discoveries continually being made. During one of the summer clean-ups, the grave of Napoleon Alferd was located partially buried under some brush and earth. Alferd died of a kidney disorder (acute nephritis) not long after his service in the WWI; he was only 26 years old. Alfred had worked for American Car & Foundry at the St. George Wharf in St. Louis, which manufactured railroad passenger cars, streetcars, trolleybuses, and locomotives. The motif on his headstone is likely the logo for the Colored Knights of Pythias, Lodge No. 56 (also listed on the base of the stone). This lodge was organized in Carondelet, Missouri in 1880 when white fraternal orders did not admit blacks. The Colored Knights often provided for a member's burial and/or headstone and financially assisted the lodge member's family upon his death.

In 2010, Hertel also began investigating Ridge Prairie—an early nineteenth century black settlement approximately 3 miles north of O'Fallon in St.

Clair County. Pioneer Baptist Minister James Lemen, Sr., a stalwart abolition ist who helped establish Illinois as a free state, settled this area. Lemen came to Illinois in 1786 after having made a secret compact with his mentor and friend Thomas Jefferson. Jefferson had asked Lemen to begin a movement against slavery in what was then considered the Northwest Territory. As a result. Lemen successfully engineered a schism within the Baptist Church, dividing it forever on the issue of slavery. Lemen only allowed non-slave holders to join his churches. As a result, Bethel Church was established as the first "Friends of Humanity" Baptist congregation in the Illinois Country on December 10, 1809. They held services at members' homes until a proper meetinghouse was built in 1825

Approximately three miles east of Bethel, as early as 1814, a small community of black landowners began to emerge. Many of these settlers were brought to Illinois as slaves and then they were freed by their

owners. Some of these free people of color were given money, land, and/or goods upon their emancipation. Others, however, had to go into indentured servitude

or find a trade in order to earn money. Some individuals were emancipated in different states and migrated to the this small community in hopes of living in a "free land." Many individuals were born to mothers who were already free. (Whether a child was considered free or slave was determined by the status of the mother, not the father; there-

Bethel Church Livingston Livingston Livingston Church St. 12803 St. Clair County Atlas (est. 1820's)

- land tracts owned by free persons of color (1814-1863)

- Old Enterprise Farms

fore if a mother were free, her children were free.)
In the 1820s, John Livingston—the first ordained black minister in Illinois—built a Colored Baptist Church (referred to as Mount Zion or Mount Olive) just three miles southeast of Bethel. Free blacks prob-









ably found in this small Ridge Prairie settlement a haven where they could build thier own lives away from slavery; it was a place where they felt safe among friends. Although, in those days free people of color in Illinois were sometimes the victims of the Reverse Undergrown Railroad and were kidnapped and taken to slave states to be sold into slavery against their will.

In 1809 Lydia, wife of Nace Titus, was captured by Elijah Mitchell and almost sold back into slavery after having been freed by Jenny Mitchell in 1807. Lydia successfully sued for her freedom in St. Louis before being transported to Kentucky. In 1832, Nace and Lydia's five

children—Mahala, Sam, Marianne, Nathan, and Vina—were kidnapped by Elijah Mitchell, Martin (alias Henry) Mitchell, and Alexander Fields and taken to Missouri. The St. Louis Circuit Court liberated Marianne and Vina, but Mahala, Sam, and Nathan were not granted their freedom. Court records report Nace's death during his childrens' 1832 trials. Lydia, Mahala, Sam, and Nathan were not located on any census records following the 1832 trials.

Nace, his brother Samuel, and eight other Titus family members were emancipated by Revolutionary War Captain Joseph Ogle in 1815. Ogle came to Illinois in 1802. Nace purchased property in Ridge Prairie in 1816, and Samuel purchased his first property there in 1817. Fortunately Samuel Titus' family remained free and thrived. By 1840, the St. Clair County Census shows Samuel living with ten other free

people of color. In 1850, black schoolteacher, George W. James, appears to be living with Samuel and his family. Samuel enjoyed a long life; the 1860 census indicates his age as 72.

The Bethel community was said to have been a stop along the Underground Railroad. Since many abolitionists, anti-slavery sympathizers, and free people of color had settled there, it seems a likely scenario. Hertel is currently working with Brian Keller-president of the O'Fallon Historical Society-and local residents to determine the accuracy of this theory. According to Illinois census records, approximately 113 blacks and mulattos lived in Ridge Prairie, independent of white households, between 1818-1870. Thus far, Hertel has identified at least 16 land tracts as owned by free people of color before 1863. Hertel has also determined that many Ridge Prairie residents also owned land in the Alton area (Madison County), a well-known Underground Railroad stop. Ridge Prairie was located about 25 miles southeast of Alton.



Hertel's present research focuses on a homestead owned by Richard and Johann Ellerbrake, called Enterprise Farms. The Ellerbrake's home, located on the eastern edge of their property, was constructed of brick said to be made on the adjacent farmstead. In 1997 the Ellerbrakes were renovating the basement of their historic home. They wanted to replace the loose mortar between the large limestone blocks, which form the foundation of the original portion of the house. When removing some of the old mortar near the floor in one of the corners of the basement, some of the blocks fell into what they discovered to be a hidden room. The small earthen room, with an arched brick ceiling and walls, resembles an old milk cellar. The room was empty except for a small earthen L-shaped bench. Peter Bowler, who helped erect the Bethel Baptist Church, originally owned the home in 1830. The property then passed to multiple free people of color between 1832 and 1849, including Isham Joiner, Daniel Joiner, and Samson Cowan.

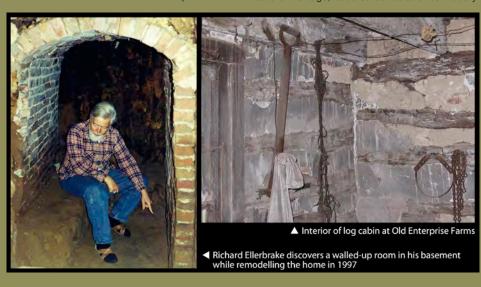
A small log cabin sits on the western half of Enterprise Farms. The building's exterior has been sided and resembles a shed, but the interior remains mostly true to its original state. Ballard Downs, a slave until his emancipation in 1830, originally purchased the property on which the cabin sits; his master was William Downs of Tennessee. William's 1821 will stipulated that

upon his death and the death of his wife, Ballard would receive his freedom. Ballard married Polly Joiner (of Tennessee) in 1827. The cabin appears on the 1863 St. Clair County Atlas, during which time it was owned by Thomas Clark, a free black man from Missouri.

Hertel has applied for an Illinois Association for the Advancement of Archaeology (IAAA) grant for tree ring analysis of logs from the Ellerbrake's cabin. Since the grant will only cover the cost of obtaining samples, Dr. Matthew Therrel, dendrochronologist at Southern Illinois University at Carbondale, has graciously agreed to conduct the tree ring analysis gratis. With the help of some of his colleagues and graduate students, Therrel will attempt to ascertain when the cabin was originally built.

Obtaining information and organizing this historic site restoration is predominately credited to the willingness and concern of residents in their communities, church and city officials, and members of the many interested clubs and organizations who volunteer information, time, and manual labor. ISAS volunteers appreciate the opportunity to play a part in these achievements, lending research, cartagraphic, and archaeological expertise. These kinds of projects give everyone involved a chance to learn and work together, strengthening not only our cultural heritage, but also our cultural comradery.









Excavation, French Cahokia, St. Clair County (above); Josiah Randle house post fire, (below) and excavation (right) Madison County.

dwelling were identified; the structure was potentially occupied by Francois Trotier ca. 1770 and later owned by Etienne Pensonneau. The dwelling was completely hand excavated and produced numerous eighteenth century artifacts including wine bottle glass, faience, gunflints, musket balls, musket parts, animal bone, Micmac stone pipes, projectile points, glass beads, and hand forged nails. Architectural debris not collected consisted of limestone and whitewashed bousillage fragments. The site was recorded as Lot 23 of the French Cahokia Village site (11S1802).

#### FAP 310/US 67, Godfrey to Madison/Jersey County Line, Madison County

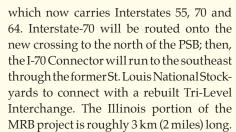
Archaeological investigations associated with the FAP 310 project in Madison County were completed during the 2010 field season.

Only one previously unreported site, Josiah Randle (11MS2372), was excavated during this process. Phase I shovel tests of a wooded lot and a pedestrian survey of an adjacent agricultural field were used to delineate the limits of the site. Subsequent Phase II testing resulted in the identification of 12 early to mid-nineteenth century features, all of which were completely excavated. Most prominent was a limestone-lined cellar with potential ties to early settler Josiah Randle and his purchase of the property in 1831. This house stood until destroyed by fire in 1928. A local resident has generously provided numerous photos of the farmstead during the early twentieth century.

#### Mississippi River Bridge, St. Clair County

After more than a decade of planning, construction is now underway for a new

four-lane Mississippi River Bridge (MRB) connecting St. Louis and the Illinois Metro East. The MRB is considered vital to the St. Louis region's continued economic growth, and it is intended to alleviate congestion on the Poplar Street Bridge (PSB),



ISAS began conducting preliminary surveys of MRB impact areas during the mid-1990s. Since then, two large prehistoric sites have been identified, tested, and subjected to large-scale, data-recovery investigations. These include the Janey B. Goode site (11S1232) and the nearby East St. Louis Mound Center (11S706). Janey B. Goode was excavated from 2002–2007, and ongoing excavations of the East St. Louis site began in 2008.

The East St. Louis site is an extensive Mississippian period (ca. A.D. 1050–1200) mound-and-town complex with a prehistoric population estimated in the low- to mid-thousands. Large portions of the site



are preserved beneath the modern city of East St. Louis and adjoining areas. Second in size only to its mighty neighbor Cahokia, the East St. Louis site is situated near the juncture of Cahokia Creek and the Mississippi River. It rests on a broad, generally sandy rise that offered some protection from flooding. As the modern city of East St. Louis grew and industrialized during the nineteenth century, the mound center's visible presence on the landscape was blotted out. Although its mounds were leveled for borrow, filling and leveling to reduce the risk of flooding protected much of the site's remaining prehistoric deposits. Over





Excavation (above), projectile points (right), and flint clay head (bottom), East St. Louis site, St. Clair County.

the last few decades, archaeological work for transportation projects exposed portions of the site's civic-ceremonial precinct. However, the location of the associated residential areas remained unknown until ISAS's 2008 testing revealed several early Mississippian dwellings in the stockyards. ISAS subsequently began data recovery excavations during the spring of 2009, focusing on the proposed impact areas for the I-70  $\,$ Connector (ISAS Project Log #07128) and the MRB-associated Exchange Avenue Extension (ISAS Project Log #08080). The 2009 work was conducted entirely within the former St. Louis National Stockyards, which is located immediately north of the East St. Louis city limits in Fairmount City, Illinois. Most of ISAS's efforts there fell within the defined limits of the site's Stockyard Tract

(11S706/5), with the remainder in the National City Tract (11S706/4).

Excavations continued in 2010 at an accelerated pace. Investigations in the Exchange Avenue Extension ROW and the adjacent 40 footwide utility easement took place during the winter and concluded in March. Excavations in the I-70 relocation corridor followed and took place within the Stockyard Tract, the Second Street Tract (11S706/6, in East St. Louis proper), and the National City Tract. By the end of the year, a crew ranging from 40 to as many as 90 individuals had spent roughly

51,000 work-hours excavating 979 prehistoric features and 35 historic features.

Despite widespread disturbance caused by historic period activities within the stockyards, the features were typically well preserved, and many were found intact beneath concrete pavement and building founda-

tions. Remnants of Mississippian features were detected and excavated even under a portion of the foundation of the former stockyard hotel and around the enormous

footings and walls of former factory buildings. The completed prehistoric features this year consist of 203 structures, 555 pits, 11 post pits, 196 nonstructural posts, and 14 hearths. The completed historic features, which were restricted to one excavation block in the Second Street Tract, include 23 privy vaults, 3 cellars, 3 wells, 3 cisterns, 2

pits, and 1 post. These were associated with the residential use of this block around the turn of the twentieth century.

The distribution of Mississippian features across the site indicates an intensively occupied residential zone similar to those that have been observed at the Cahokia site. Excavations this year uncovered more of the substantial Lohmann phase (A.D. 1050-1100) occupation identified during the 2009 investigations. Based on the size of the occupation, the number of structures and amount of recovered ceramic material, it should be possible to identify early and late facets within the Lohmann phase occupation. The early Lohmann facet is represented by small, rectangular single-post structures, whereas the late facet exhibits a mix of single-post and wall-trench structures, many of which were rebuilt at least once. Also, several large, monumental posts (post pits) that had been emplaced early in the occupational sequence were subsequently pulled, and structures were erected over their former locations. Often these structures were constructed later in the Lohmann phase, although some do derive



from the Stirling phase (A.D. 1100-1200).

The Stirling phase component also appears to exhibit both early and late facets. Although Stirling phase features are found throughout the investigated area, the focus of the Stirling occupation appears to be nearer to the civic-ceremonial precinct of the site. Most of the prehistoric features excavated in the Second Street Tract are affiliated with the Stirling phase occupation. No late Mississippian (Moorehead and Sand Prairie phase) occupations have been encountered, suggesting that East St. Louis was largely abandoned much earlier than Cahokia. Lohmann and Stirling phase features have typically produced modest to dense concentrations of domestic refuse with occasional evidence of craft activities (e.g., ear-ornament and axe production) and tool caches (e.g., hoe blades and arrowpoints). Notable Mississippian artifacts recovered



this year include a cache of celt preforms, the head of an unusual flint-clay figurine, and three owl or owl-human effigies that were recovered from a single structure. In addition, ISAS crews discovered an area where Baraboo pipestone, imported from Wisconsin, was fashioned into earspools.

Two additional components were identified at the East St. Louis site this year. An extensive Terminal Late Woodland (A.D. 900–1050) occupation was revealed in the National City Tract along the site's northwest edge. A historic component, restricted to the Second Street Tract, consists of privy vaults and wells that date to the late nineteenth and early twentieth centuries.

#### **Current Research**

#### **Coprolite Research**

ISAS coprolite research —"Waste is a Terrible Thing to Mind Project"—continued in 2010. In 2010, ISAS received additional samples from the Janey B. Goode site derived from floatation. Currently, the total number of coprolite pieces is approximately 150 recovered from 78 features. In previous annual reports the process of breaking these samples down through water screening was discussed. Macro-fauna remains—including fish bone and scales, muscle sinew, hair, and bird, rodent, and amphibian bonehave been identified by Steve Kuehn (ISAS Faunal Laboratory). In 2010, we submitted five hard and fluid samples to Dr. Bryan White and his assistant, Dr. Carl Yeoman to extract bacterial DNA, a project supported by Purina. Drs. White and Yeoman are associated with the Institute for Genomic

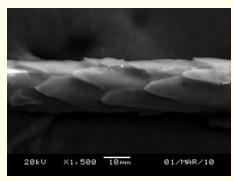
Scanning electron microscopy (SEM) of samples, Federick Seitz Materials Research Laboratory, UIUC (above) with results (top to bottom, right): dog hair, human hair, and plant fiber.

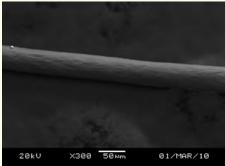
Biology at the University of Illinois. In late December, ISAS received word that bacterial DNA had been successfully extracted and identified. Eleven distinct bacterial DNA identifications were made from the cores of the feces samples, including Firmicutes, Bacteroidetes, Actinobacteria, Proteobacteria, Acidobacteria, Nitrospira, Planctomycetacia, Chloroflexi, Deinococcus-Thermas, TM7, and WS3. The bacteria spectrum confirmed that these fecal samples indeed came from dogs. In addition to these, other bacteria types were found on the exterior surfaces, including Cyanobacteria, Gemmatimonadetes, Verrucomicrobia, and Chlamydiae. Some of these bacteria commonly occur in the soil and probably attached themselves to the feces when they were deposited on the surface of the site or were attached to soil fills in pit features. One peculiar discovery is that the bacteria, Bacteroidetes, are almost nonexistent (.02%) in our coprolite samples. This absence is not in keeping with modern dog populations where Bacteroidetes represents just over 30% of dog feces bacteria. Why such a difference would occur is presently unknown although we suspect that diet may have played a role in this difference.

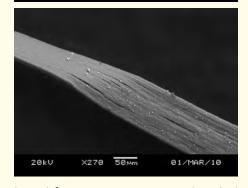
Another member of the coprolite research team, Dr. Ripan Malhi of the Department of Anthropology assisted by Dr. Steve Leigh of the same department, identified the actual DNA of one of the dogs. Based on 173 base pairs of clean sequenced DNA, Dr. Malhi found that our coprolite DNA was a perfect match to a previously analyzed dog from Hidalgo, Mexico. In that case, the Mexican dog dated to A.D. 550. The sequence

was haplotype D6, the same haplotype found in wolves. This would indicate that the shared ancestry of the Janey B. Goode dog and that of the Hidalgo, Mexico dog also is associated with some of the first dogs in North America, i.e., the first migrants to North America from Asia. It is interesting that such a close match would exist since DNA chains are known to mutate over time.

During the initial processing of the first six samples, the chief ana-







lyst of this project, Dr. Fortier, identified what appeared to be individual hair strands. Through contacts via Dr. Sarah Wisseman of the ATAM program, we approached Dr. James Mabon, Research Electron Microscopist at the Frederick Seitz Materials Research Laboratory at the University of Illinois, to conduct scanning electron microscopy (SEM) of the hairs. This was accomplished in February of 2010. The results were somewhat surprising. One of the hair strands was from a dog. Two others, however, proved to be unidentified plant fibers. A fourth scan of Dr. Fortier's hair was conducted to differentiate dog from human hair.

Future research will include further DNA analysis, processing (hydration) of more samples, and hopefully blood paneling and parasite identifications to assess nutritional/health levels of the dog population at the Janey B. Goode site. We are also hoping to expand this project to include DNA and isotope analysis of actual dog remains. There are approximately 60 dog burials at Janey B. Goode, many of them in excellent states of preservation.









### **Historic Bridges and Buildings**

The Cultural Resources Unit at IDOT, under Dr. John Walthall, with the assistance of Brad Koldehoff and Laura (Fry) Root, reviews proposed IDOT projects for potential impacts to historic period bridges and buildings, as well as to archaeological sites. A new programmatic agreement (PA) for IDOT's management of historic bridges is being developed in coordination with the FHWA and the Illinois Historic Preservation Officer. A key element of the new bridge PA will be an updated Historic Bridge List (HBL). which will contain examples of different bridge types in Illinois that are controlled by IDOT and that are listed on the National Register of Historic Places or are eligible for listing. Laura Root, with the aid of ISAS survey teams across the state, is working to update the HBL. A critical part of this undertaking is assessing the character and condition of the bridges on the old HBL. Current photographs of previously recorded bridges are essential to complete this task. and ISAS archaeologists from the regional field stations have provided many such photographs. When the new HBI has been assembled and approved as part of the revised bridge PA, the Historic Bridge website will be updated. The new HBL will contain approximately 260 bridges, or about one percent of the bridges in Illinois.

### Orendorf Village Site Project

ISAS has initiated a partnership project with the Upper Mississippi Valley Archaeological Research Foundation (UMVARF) to analyze and produce a report on the Mississippian age (A.D. 1100-1250) fortified town-and-mound center of Orendorf located in the Central Illinois River valley. This site, which was largely destroyed as a result of coal mining, was salvaged by UMVARF in the early 1970s. Several hundred wall-trench houses and several thousand features were excavated as part of this excavation effort. The collections have remained largely unanalyzed for the past four decades. ISAS is in the process of digitizing field maps and analyzing the ceramic, lithic, faunal, and floral remains from a selected portion of this impressive site.

#### Public Outreach

#### Ransom and Henry Donations

In the early 1950s, two young men from Danville, Illinois embarked on a life-long adventure together—they got hooked on collecting "Indian arrowheads." Jerry Ransom and John Henry walked plowed fields around Danville collecting points,

axe heads, and other stone tools every chance they could get for decades. Walking fields, however, became more than just a hobby; it became a fascination with trying to understand the past. John and Jerry wondered what stories the stone tools they collected could tell about the ancient Native Americans who manufactured and used them. Early in their surface collecting careers, they met the late John C. McGregor, professor of archaeology at the University of Illinois at Urbana-Champaign. After examining their collections, McGregor asked them if they had found pottery sherds

when searching the farm fields of Vermilion County. McGregor told them to look for pottery at sites located on sandy ridges in floodplains where they found many small triangular arrowpoints. John and Jerry knew exactly where to go. Today this location is known as the Collins site (11V15?), one of the most important late prehistoric sites in east-central Illinois. It is a Late Woodland mound and town site

with clear evidence of interaction with the early center of Mississippian culture known today as Cahokia Mounds State Historic Site, located in the Mississippi River floodplain nearly 200 miles from the Collins site. McGregor and other Illinois archaeologists encouraged John and Jerry to document their collections using basic archaeological techniques: recording site locations on USGS topographic quadrangles, labeling artifacts with site numbers, and keeping artifacts from each site boxed or bagged together. John Henry excelled at this cataloging and record keeping. In 2003,



Jerry Ransom (left) and John Henry (right).

after providing information and insights about archaeological sites in the Danville area to ISAS researchers conducting a Phase I survey for a proposed beltway around Danville, John donated his entire collection to ISAS. In the fall of 2010, Jerry Ransom donated part of his collection to ISAS. The donated "Ransom Cache" is a collection of 33 Archaic period bifacial preforms that were surface collected over several years from a single spot on a much larger habitation site. The bifaces are manufactured from Lead Creek (or Plummer) chert, which has source areas in western and southern Indiana. The Ransom Cache is the first deposit of Lead Creek chert bifaces to be documented in Illinois. The till plains of interior Illinois are chert-poor landscapes,

so ancient groups routinely transported chert tools and preforms into the area, thus leaving clues to the directions and distances they traveled. The cache along with hundreds of other artifacts donated by John and Jerry will be preserved in perpetuity by ISAS, and thus, these pieces of the past will be available for study by future generations of students and researchers.

#### **Robert Reber Collection**

Unparalleled insights into the prehistory of Illinois can be gained by recording well-documented artifact collections gathered by dedicated avocational archaeologists. Dr. Robert Reber, long-time managing editor of *The Illinois Steward* magazine and a Univer-

sity of Illinois Extension nutrition specialist and associate professor of nutrition, has for decades been systematically recording and surface-collecting archaeological sites in the headwaters area of the Middle Fork of the Vermilion River. This year an inventory of his site collections was completed by a team of ISAS researchers led by Brad Koldehoff and Madeleine Evans, who logged many volunteer hours inventorying and photographing stone points and tools, with assistance from Brenda Beck, Amanda Butler, Alexey Zelin, Kim Wurl, and Linda Alexander. Reber's efforts are especially important because little is known about the prehistory of east-central Illinois, particularly in upland areas. In total, 6,780 prehistoric artifacts were recorded: 6,357

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### Illinois Department of Transportation

## 4th Annual Career Day



In October, ISAS participated in the Illinois Department of Transportation's Career Day 2010 housed at the Illinois State Fairgrounds Exposition Building in Springfield, Illinois. The IDOT Career Day is a workforce development tool designed to introduce middle and high school students to careers in and related to the transportation industry. Through handson activities, exhibits, and demonstrations, local students have the opportunity to learn about these careers. Guided by IDOT volunteers, students are led through the various exhibits in groups of approximately 20 accompanied by their teachers. The event attracted dozens of companies and over 400 middle and high school students.

IDOT Career Day is made possible by industry partners responsible for maintaining Illinois transportation system. Among these are professional organizations, schools, trade unions, companies, and others involved in the transportation industry. Through the collaboration of these organizations and IDOT, youth can be inspired to consider one of the many rewarding careers related to transportation—thus providing the industry with the professionals of tomorrow.

The Illinois State Archaeological Survey, the Illinois State Geological Survey, and the IDOT Bureau of Design and Development presented their individual exhibits as a related group. Eve Hargrave and Linda Alexander created the ISAS display and presented an archaeological slide show accompanied by posters, publications, brochures, and artifacts.









# **2010 Naturally Illinois Expo**



Shortly after joining the Institute for Natural Resource Sustainability (INRS), the Illinois State Archaeological Survey participated in the 3<sup>rd</sup> Annual Naturally Illinois Expo (March 12–13) on the University of Illinois Urbana-Champaign campus. This annual event is organized by INRS staff from the Illinois State Geological Survey, the Illinois State Water Survey, the Illinois Natural History Survey, and the Illinois Sustainable Technology Center with the aim to educate the general public about natural resources throughout Illinois. Exhibits focused on a wide variety of topics ranging from insects and turtles to geology and fossils.

ISAS staff members Eve Hargrave, Linda Alexander, Corinne Carlson, Steve Kuehn, Amanda Butler, Mike Lewis, and Doug Jackson participated in assembling exhibits, posters, and activities highlighting Illinois archaeology. Our exhibit—"Rocks, Bones, Pots, and People: What Does It All Mean?"—included displays of lithic and faunal tools, ceramics, a comparative faunal collection, informational posters, and "Draw an Artifact" where Expo participants could illustrate artifacts.

The first day's attendees consisted primarily of 900 school-age children, their teachers, and parent chaperones. The following day's attendance of 600 people represented the general public and included family groups and interested adults. Overall, ISAS's participation in this event was well received and presented a great opportunity for ISAS to meet our fellow survey staff members.

## **Mounds as Meeting Places**



Aboriginal mounds served as important locations for social integration in the past and continue to function in this capacity today. For example, as an indirect result of our stated mission to revisit and preserve native mound groups, we were able to help a Kansas man reunite with his long lost, great-great grandfather. This came about in 2010 through a series of seemingly serendipitous events that began nearly a decade earlier. In 2001, several ITARP/ISAS staff members met George Wheeler while doing standard landowner contacts for the IDOT IL 29 four-lane highway study corridor. George invited them to tour a small museum the family maintains on their centennial farm in rural Putnam County that is dedicated to the history and archaeology of the area. As the relationship grew over the years, ITARP ultimately helped the Wheelers restore a mound on their property that was left open after the University of Chicago excavated there in the 1930s; the family has diligently mowed and maintained this wonderfully picturesque mound group for several generations. This Woodland-age mortuary site also happened to be the final resting place for Chief Senachwine, a prominent leader of the Prairie Band Potawatomi of the Illinois River valley, who died in the early 1800s.

In 2009, Steve Tieken of the Quincy-based North American Archaeological Institute (NAAI) approached David Nolan (ISAS) about jointly doing a public bus tour celebrating the spectacular mounds held in the public trust on Quincy Park District land. As a prelude to this, the two guided a team of local volunteers in a two-weekend-long field reassessment of the mounds in the Parker Heights and Indian Mound Park groups; this work included detailed mapping and photography of each mound, as well as filling out documentation about their current condition. As a result of this partnering, Park District personnel



recently cleared the brush from one of the larger mounds near the municipal swimming pool that forms part of a unique earthwork, so everyone can once again enjoy the beauty and symmetry of this monumental feature.

The bus tour also turned out to be a huge success, largely due to the participation of a number of native peoples, including a Potawatomi couple that Steve met several years earlier when he hosted a picnic in honor of the tribe as part of a Trail of Death Commemorative Caravan event held in Quincy. As a result of meeting one another while touring the mounds, Dave discovered that Eddie Joe Mitchell, a tribal gardener and spiritual leader from



the Prairie Band Potawatomi Reservation in Mayetta, Kansas was related to Chief Senachwine and arranged a visit to Putnam County the following May, around the time of the second annual Quincy Mound tour. This was not only a wonderful reconnection for Eddie Joe and his wife Mary, but also for George and Bob Wheeler, whose family had established a long-term friendship with the Potawatomi resulting from their periodic visits to the family farm for pow-wows and other ceremonies for several decades after World War II. Eddie Joe and Mary also toured our Macomb lab facility as part of their visit, and it proved to be a wonderful day for everyone involved. It was especially gratifying to find out that our work, and the public engagement activities that have become a recurrent byproduct, can have such a positive impact on people's lives and family histories.

chipped-stone points and tools, 299 groundstone tools and ornaments, and 124 pottery fragments. The majority of these items were gathered from about 30 habitation sites that cluster around a single, expansive upland marsh area. Of the thousands of chippedstone points inventoried, most fall into three cultural periods: Early Archaic, Late Archaic, and Early Woodland. However, Middle Archaic, Middle Woodland, and late prehistoric components are far from absent. Ongoing efforts are focused on reporting Reber's site locations to the state site files and developing datasets to explore models of landscape utilization through time.

## East Central Illinois Prairie Avocational Collections Project

This ongoing initiative involves a systematic effort, in cooperation with the East Central Illinois Archaeological Society, to identify prehistoric and historic cultural resources in an eleven county region surrounding our home office on the UIUC campus. We aim to relocate and revisit significant cultural resources identified in early site records, including, but not limited to, burial mounds. We are also documenting archaeological materials in the hands of cooperating collectors and adding previously unreported sites to the Illinois site database. During the reporting period, nearly two thousand artifacts have been recorded and photographed, primarily from three large private collections. Results of these efforts are made accessible to local community members through a combination of popular publications, media interviews, and public talks. We believe that this directly benefits the people of central Illinois and the University of Illinois, of which we are a part.

### Archaeology for the Public

Since 2008, ISAS has been collaborating on a number of projects with Dr. Robert Reber (professor emeritus of Nutrition, UIUC, and former editor of the Illinois Steward) designed to provide the public with an appreciation of the cultural resources present in the state. The most significant of these is a basic textbook titled, The Archaeology of Illinois: A Legacy of People, Land, and Technology. To date, six of twelve chapters have been completed. Additionally, Dr. Reber is preparing a poster, "Illinois Projectile Points," that will illustrate and provide basic information on projectile point types found throughout Illinois. A more detailed book is also planned; it will present information about the manufacture, distribution, and age of various hafted biface types in Illinois.



# Replication and Restoration Interview, Fred Brown



In July 2010, ISAS staffmembers Angie Patton, Linda Alexander and Ken Farnsworth met with artifact replicator Fred Brown at his studio/workshop in Springfield, Illinois. While picking up Fred's most recent work for ISAS—replications of the Exchange Avenue figurine found at the East St. Louis site—they also videotaped, photographed, and interviewed Brown.

Q How did you begin working with Illinois Archaeology?
A John Walthall asked me if I thought I could replicate artifacts discovered in archaeological digs throughout Illinois. I asked for a few sherds to practice on. It was successful and they gave me several pots, effigies, and even dog remains to duplicate.

#### Q Were you always interested in creating, designing, and problem solving?

As a youngster, I had to see how things were put together or how they worked (from toys to toasters). I would take things apart, usually ruining them.

#### When did you start working for IDOT? In what capacity?

A In 1965, I was hired into the Exhibits & Displays Unit for the Division of Highways. I started out with absolutely no talent, but a lot of enthusiasm. Everything I learned was through trial and error. After a few years, our unit became very talented in creating special projects such as exhibits used in public hearings . . . related to highway construction. Someone came into the shop and asked if we could create a model of the interchanges of the new interstate system being created across America. That was the start of my model making career.

When did IDOT discover their good fortune and change your title? A While 3-D model making was becoming my specialty, I was building a reputation of trying any project someone would ask for. The bigger the challenge, the better I liked it. I felt that if you would give them more than they expected, they could only go away happy and would always have something good to say about your work. It worked out well, enabling me to do unusual projects, i.e. models for the state's lawyers court cases, projects for John Walthall with IDOT's Bureau of Design and Environment, and archaeology projects for Ken Farnsworth. I worked for IDOT for 35 years and retired in 2000.

#### Q What was a favorite "significant" Archaeological project?

A My favorite project was four separate projects combined into a very large and historically educational exhibit now displayed at the Center for American Archaeology Museum in Kampsville, Illinois. They depict four decades of early American life, from the 1820s to just before the railroads. There are four different models. "The Landmark Tavern" from Salem, Illinois depicts life on a migration trail from the east. "The Mitchell House" is a model of a house on the Illinois River in central Illinois showing unusual construction methods such as Flemish bond brick masonry, walnut and oak substructure, etc. "The Pottery Kiln" in Elizabeth, Illinois is meant to show a day in the life of a potter in the 1830s from one side and an archaeological dig from the 1980s from the other side. "The Kun Brewery" from Springfield, Illinois is meant to show different production jobs in the life of a brewery operation, i.e. storing grains, barrel making in a cooper shop, brewers checking on the aging process, my interpretation of how a brewery cavern could be constructed. Each of these models have their own story built into them and were combined into one large exhibit showing early American life in Illinois.

#### What were your favorite achievements while at IDOT? Did you have a favorite project?

A I always liked the challenge of working with the state lawyers in creating a model of a situation where the state was suing someone. For example, a barge on the Illinois River ran into a bridge and caused extensive damage. My two models depicted one before and one after the damage. The judge was thrilled with them, making the state's case very clear. We won the case.

#### What was your greatest design challenge?

A My last project was a cartoon-looking school bus constructed in life size. This bus was used by the IDOT Traffic Safety Division to help educate school bus safety for children. Other challenges included a Bascule Bridge in Joliet, Illinois, a Vertical Lift Bridge in Hardin, Illinois, a Pony Truss Bridge on some small road in central Illinois, the Twin Bridges in Peoria, Illinois, and I built models of all the Interstate Interchanges, (Clover Leaf, Trumpet, etc.). I built a display with three models incorporated, to show four different time periods of the area of the Mid-America Airport at Route 4 and I-64 (10,000 years, 2,000 years, the 1840s, and present day). It's on display at the airport terminal. I built a very difficult and complex model of the Cross Town Expressway in Chicago at Union Station and under the Chicago River. This model was L-shaped with one leg at 12 feet and the other at 8 feet, and from the floor to the tallest building it was about 10 feet tall. I put together a model of the Koster site dog burial. I had to mold, cast, and paint all of the dogs bones, and rebury them to appear as close to the way the real burial looked as possible. I built two of them, one for Kampsville, Illinois, and one for Dixon Mounds. As you can see, the wide variety of challenges made my job very interesting.

#### Q What part of your work do you enjoy most?

A Since retirement, I have constructed furniture, fireplace mantels, gun cabinets, bookshelves, computer stations, etc. I've also gotten into civil war-era bottle polishing and repairing, and stoneware restitution. I also have reproduced two effigy figurines for the U of I and hope to do more for them.

### **Papers and Posters**

In 2010, ISAS staff presented papers and posters at a number of professional meetings. These include the 56th Annual Midwestern Archaeological Conference in Bloomington, Indiana, the 67th Annual Meeting of the Southeastern Archaeological Conference in Lexington, Kentucky, the 82nd Annual Illinois Cemetery and Funeral Home Association Conference in Willowbrook, Illinois, the 75th Annual Meeting of the Society for American Archaeology in St. Louis, Missouri, the American Association of Physical Anthropologists, the annual meeting of the Illinois Archaeological Survey in Normal, Illinois, the Annual Meeting of the Society for Historical Archaeology at Amelia Island, Florida, and the 2nd Science and Archaeology Symposium in Urbana, Illinois. Talks and posters were also presented to public and professional audiences at the Illinois State Museum in Springfield, the Dickson Mound Museum in Lewiston, Illinois, the Labor and Industry Museum in Belleville, Illinois, the annual meeting of the Illinois Association for the Advancement of Archaeology (IAAA) in Springfield, Illinois, and at IAAA chapter meetings around the state.

















# Crescent Hills Chert Quarry Tour

In April, the annual conference of the Society for American Archaeology was held in St. Louis, Missouri. Following the meetings, Brad Koldehoff lead an international group of archaeologists on a tour of the renowned prehistoric Crescent Hills chert quarries. For thousands of years, groups gathered and mined high-quality chert from massive residual deposits of Burlington Limestone at the Crescent Hills situated along the lower Meramec River in St. Louis County. This raw material was preferred by the prehistoric inhabitants of Cahokia Mounds State Historic Site located in Illinois across the Mississippi River from St. Louis. The tour group included researchers and students from the United States, Canada, Great Britain, and Germany.

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