

ARCHAEOLOGY ON THE ROAD ... AGAIN



JULY 18-25, 2009

COUNCIL
BLUFFS



RED OAK



GREENFIELD



INDIANOLA



CHARITON

OTTUMWA

MOUNT
PLEASANT

BURLINGTON



... on the road



Archaeology on the Road

Having a great time.
Wish you were here!

Archaeology rocks!!



Office of the State Archaeologist
700 Clinton St. Building
Iowa City, Iowa 52242
USA

A MESSAGE FROM THE DIRECTOR

Team Archaeology is back for our second year! We are excited to be part of Expo this year and pleased to offer riders and participating communities along the route even more opportunity to share the story of Iowa's amazing past. Iowa's archaeological sites, and the artifacts they contain, tell the history of the first people to travel this landscape and the stories of each generation that has contributed to what we know of ourselves today. As you travel through our

beautiful state, you too are now a part of that story, making history for the future to wonder and learn about!

The Office of the State Archaeologist serves a unique dual role in Iowa as both a University of Iowa research unit and state agency. It is our goal to provide all Iowans the opportunity to learn about their past so look for the Team Archaeology riders



State Archaeologist, John Doershuk, examining ceramics with student, Kayla Resnick.

as well as our outreach booth at Expo and near Henderson, Milo, Moravia, and Packwood as you ride and be sure to ask about Iowa archaeology. Use this booklet as your guide to the week's activities and please help yourself to free materials about our shared past from our outreach booth. Be sure to get one of this year's free Iowa Archaeology wrist bands! Most of all, ride smart, be safe, and when you get home tell your friends and neighbors about Iowa archaeology!

- John F. Doershuk (JFD), State Archaeologist

EFFIGY MOUNDS MARCHING BEAR



Cover: photograph of Loess Hills near Council Bluffs, courtesy of Mary De La Garza.

WHAT IS ARCHAEOLOGY?

Artifacts, aerial photographs, analysis
Research, recording, recovering, reporting
Collections, classification, curation
Human history, heritage protection, historic preservation
Accountability
Evidence, excavation, education
Observation, osteology, oral tradition
Lithics, laser mapping, landscapes
Outreach
Geophysical survey, GIS, Geoscience
You and your interest and support!



"Archaeology is the scientific study of the human past in all its facets—technology, economics, politics, religion, and more." JFD

This week, time travel across Iowa and follow the archaeological footprints of 10,000 years of human history. Can you picture a small band of hunters caching their stone blades in a late Ice Age landscape or hear



Historic excavation near Highway 1.

"Archaeology is the intrigue of exploration and the thrill of discovery, leading to information about our collective human past."
Mark Anderson



Prehistoric excavation at Edgewater Park.

the squeaky wheels of the Mormon handcarts denting the Iowa prairie? Discover how a fabulous walnut canoe ended up in the banks of a southwest Iowa river and what happened to the once-thriving coal-mining community at Buxton.

"Archaeology is about preserving and enhancing the quality of life for today by learning from those who came before us." JFD

Archaeology begins with questions about the human past and draws upon science, history, and oral tradition in seeking the answers.

Archaeology truly is "not just what we find, but what—and how—we find out" (based on an original quote by David Hurst Thomas).

Lynn M. Alex

KICKOFF AT COUNCIL BLUFFS - JULY 18TH

Glenwood Earthlodges

The Loess Hills Scenic Byway weaves through the rugged landscape of windblown silt deposits along the Missouri Valley. This unique American treasure possesses natural features found only in one other place in the world: the valley of the Yellow River in China. In addition to the natural beauty, the Loess Hills Scenic Byway skirts a unique archaeological resource: the Glenwood culture earthlodges. Nearly 300 earthlodge sites have been identified in the southern Loess Hills, extending from Council Bluffs to Thurman. The lodges date from about A.D. 1150 to 1300, with the greatest concentration found near Glenwood. Early Native American people built square-shaped timber houses set within shallow pits. The lodges had vertical wall support posts, were covered by earth, and ranged in size from 300 to 1,800 square feet. The largest of these may have been occupied by up to 40 persons, probably members of an extended family or band. The Glenwood culture



An excavation of an earthlodge.



A modern reconstruction of an earthlodge.

people cultivated corn, beans, sunflowers, squash, and many other plants. They were extraordinarily able fishermen and hunters, and participated in a far-reaching trade network for exotic shells and other raw materials.

While the majority of the known lodge sites have been severely impacted by construction work, scientists from the Office of the State Archaeologist have been working to understand how many relatively undisturbed earthlodge sites still remain.

It is estimated that over 4 million objects from Iowa sites are curated at the OSA's repository.



Photographs of the OSA's repository and select artifacts, courtesy of John Cordell.

DAY 1 - COUNCIL BLUFFS TO RED OAK

Council Bluffs and the Mormon Trail through Iowa

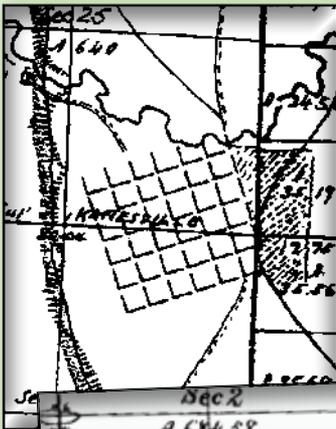
On February 4, 1846, the initial group of Mormons (Church of Jesus Christ of Latter-day Saints) left their home of Nauvoo, IL to cross what was then the Iowa Territory (Iowa didn't become a state until December 28, 1846), taking their first difficult steps toward the Great Salt Lake Valley. By April, the pioneers had established a semi-permanent settlement in Iowa called Garden Grove, which still exists today. They planted fields and founded the village in order to



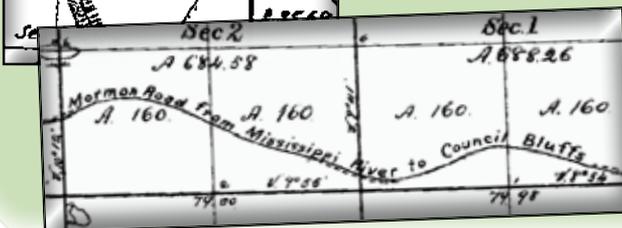
Hand cart on the Mormon Trail.

supply the many Mormon pioneers who would follow. In May of 1846, Latter-day Saints founded Mt. Pisgah, the second way station in Iowa. Mt. Pisgah was located near the current town of Thayer, in Union County, and just a few miles south

of this year's cycling route (Day 3). Waggon tracks can still be seen there. Continuing westward, the last stop for the Mormon pioneers in Iowa was Kanesville, established along the Missouri River. Kanesville was formed as an outfitting post for LDS members, but was greatly aided by the California gold rush. After the majority of Mormons left in 1852, the town was renamed Council Bluffs and remained a major outfitting post for the westward expansion.



The General Land Office surveys or GLOs were the original land surveys of Iowa. Completed between the years 1836 and 1859, they provide a detailed record of Iowa's landscape in the earliest stages of its transformation by Euroamerican settlement and are a significant resource for historians, archaeologists and environmental scientists. These excerpts showing Kanesville (now Council Bluffs) and the Mormon Road from the Mississippi River to Council Bluffs, help to document Mormon passage through Iowa. The GLO survey plats were recently scanned and are available to the public: <http://ortho.gis.iastate.edu>.



DAY 2 - RED OAK TO GREENFIELD



Photograph courtesy of John Cordell.

This approximately 300 year old, walnut dugout canoe was discovered in 1975 along the East Nishnabotna River near Red Oak in Montgomery County. Since that time it has been curated and on display at the OSA in Iowa City. Recently, through the coordinated efforts of the OSA and Montgomery County Historical Society, the canoe is now on renewable loan to the Montgomery County History Center in Red Oak.

In 1976, Iowa became the first state in the nation to enact a law to protect ancient burials. Nationally, the Native American Graves Protection and Repatriation Act of 1990 or NAGPRA as it has become known, offers protection to Native American burials, and provides a process for returning Native American cultural items and human remains to culturally affiliated Indian tribes. To learn more about NAGPRA, go to: <http://www.nps.gov/history/nagpra>.



Iowa Site File

More than 23,000 archaeological sites are recorded in Iowa and managed at the OSA through a database system called I-Sites.

This system uses a Geographic Information System (GIS) to organize map data and link it with other data related to each site location. Through a public portal you may view the number of archaeological sites per one-mile section for the state: <http://www2.uiowa.edu/i-sites/public.html>.

I-Sites allows site locations and data to be layered over standard maps and

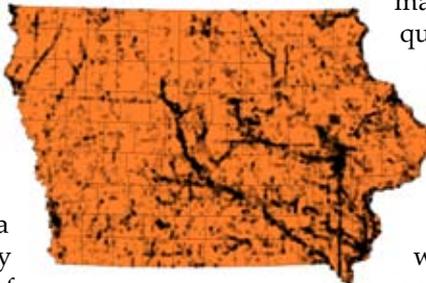
aerial photos, permitting easier cross-referencing of the data. Research that used to take many person-hours and

1000s of separate paper maps can now be done quickly and easily on

computers. Archaeologists are able to enter data for new sites directly into the database, and also access the data wherever they may be working.

This system is one of the first of its kind in the United States, and remains a project in

progress as we continually update not only site information, but the website and technology behind it.



Map showing the location of recorded archaeological sites across Iowa.

DAY 3 - GREENFIELD TO INDIANOLA



Imes Bridge, Madison County

Day 3 of this year's route will find us riding by one of the famous covered bridges in Madison County. The Imes Covered Bridge, built in 1870, is the oldest bridge of the six still standing in Madison County, all of which are on the National Register of Historic Places. The bridges were covered to protect the wooden structural members underneath from the elements and extend their life. The Madison

County bridges were brought to national prominence when Iowa-born author, Robert James Waller, used them as a backdrop for his 1992 bestseller, "The Bridges of Madison County".

Of the 23,000 recorded archaeological sites in Iowa, 659 are within 1 mile of the 2009 route.



Recent Discovery **Recent Discovery** *Recent Discovery*

The Carlisle Clovis cache dates to the end of the last Ice Age (ca. 11,000 years ago) and represents the oldest (earliest) excavated intact archaeological site in the state. It includes 38 unfinished tools that were recovered by Iowa State University archaeologists, near Carlisle in Warren County. The character, composition, and location of the cache suggest it was established to supply a stone-poor landscape with tool preforms that Clovis hunters could convert quickly into spear points and butchery tools.

Stop by our booth in Milo (Day 4) to view these rare artifacts in person and to ask State Archaeologist John Doershuk, Mark Anderson of the OSA, and Matt Hill of ISU, questions about Iowa archaeology.

Figure 1. Cache uncovered.



Figure 2. Two unfinished butchery tools and an unfinished spear point from the Carlisle cache.

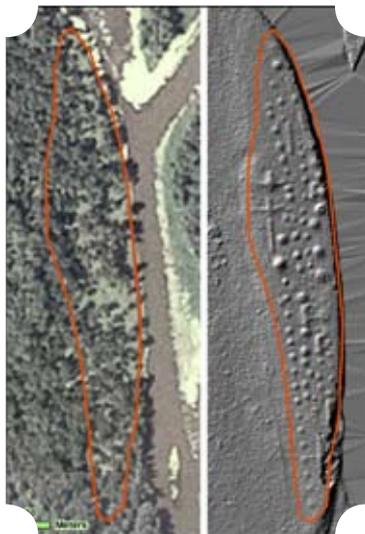
Photos and passage contributed by Matthew G. Hill, Iowa State University.



DAY 4 - INDIANOLA TO CHARITON

LiDAR in Archaeology: No Trowel or Dirt Required

Iowa is the second state to undergo a statewide collection of LiDAR data. Airborne Light Detection and Ranging (LiDAR) is a remote-sensing technology used to gather elevation data over a large area. An aircraft is mounted with a device that scans the surface with a laser; the elevation of an object or ground surface is determined by the time it takes the laser to reflect back to the detector. Of interest to archaeologists



Left: Aerial photo of the Sny Magill mound group in Clayton Co. Right: LiDAR image revealing Sny Magill mound group without vegetation.

is the potential to detect prehistoric earthen features such as burial mounds and earthlodge depressions in heavily vegetated areas. The ground elevation points are used to create a continuous surface void of vegetation which resembles a moonscape. Viola! Archaeologists now have a high-tech tool that can detect features such as burial mounds as small as 4 meters in diameter and 30 cm high.

Bones and teeth from mammoths and mastodons have been found in all 99 of Iowa's counties.



Mammoth discovery in Crawford County, courtesy of the State Historical Society of Iowa.

Archaeology and Preservation

Archaeologists not only discover and dig sites, they also preserve them. After years of research and documentation by Jim Collins and Bill Whittaker of the OSA, in March of 2009, the Folkert Mound Group in Hardin County was accepted on the National Register of Historic Places.



Photograph courtesy of Gary Brandenburg.

DAY 5 - CHARITON TO OTTUMWA

Buxton and Historical Archaeology

Northwest of the 2009 route, on the Monroe-Mahaska county line is the site of Buxton, a coal mining town founded in 1900 and owned by the Consolidation Coal Company. Buxton was notable as a flourishing town with a 55% African-American population, most having moved to Iowa from Virginia.



Buxton Wonders baseball team, courtesy Dorothy Neal Collier.

The minority white population were immigrants mainly from Sweden and Slovakia. While most of the workers were miners, the town also boasted many African-American professionals, including a doctor, lawyers, pharmacist, educators, as well as business owners. Buxton was home to five schools, a YMCA, churches, Masonic lodges, a town band, and even its own baseball team, the Buxton Wonders, who played teams from Kansas City and Chicago. The town, called a “Black Utopia,” closed in 1923.

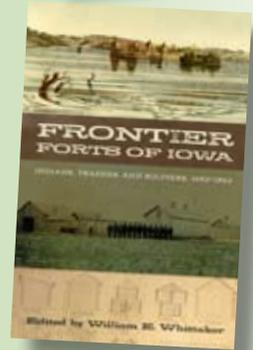
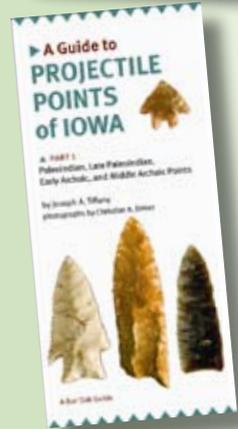
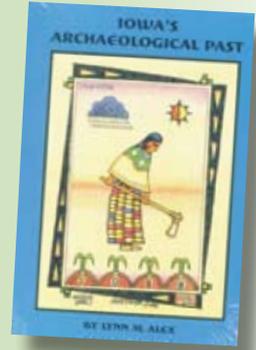
In 1980-81 archaeologists from Iowa State University, led by Dr. David Gradwohl, excavated the former townsite. At the same time historians conducted more than 70 oral history interviews which gave detailed insights into the town’s structure, mining industry, and social life.



Buxton excavation, ISU archaeological crew, courtesy David M. Gradwohl.



Coal Chute Hill in Buxton, courtesy Iowa State Historical Department.



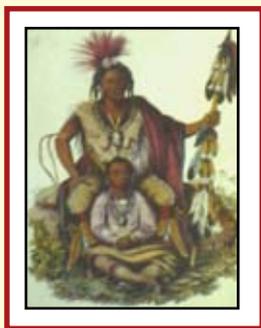
Want to learn more about Iowa archaeology? These and other great titles are available through University of Iowa Press at: www.uiowapress.org

DAY 6 - OTTUMWA TO MT. PLEASANT

Sac and Meskwaki chiefs Keokuk and Wapello each had a large village where Ottumwa is today. Approximately 4 miles southeast of Ottumwa is the town of Agency. The town dates to 1838 when the U.S. Government established an agency for the Sac and Meskwaki tribes, and appointed Joseph Street as the agent. A blacksmith shop, a council house, and other buildings were erected. The council house and Agent Street's house exist today as archaeological sites in farm fields. In 1840 General Street died and was buried at the Agency. While on a hunting trip in 1842



Chief Wapello



Chief Keokuk

Chief Wapello died on the banks of Rock Creek in present day Keokuk County. His body was returned to the Indian Agency by ox cart. According to Wapello's wishes, he was buried at the agency beside the grave of his friend, General Street. The graves were not far from the old agency buildings. Following the 1842 signing of the treaties where the Sac and Meskwaki sold their lands in Iowa to the government, the tribes assigned the dwellings plus 640 acres surrounding the agency to Street's widow. Today the graves are protected at Chief Wapello Memorial Park

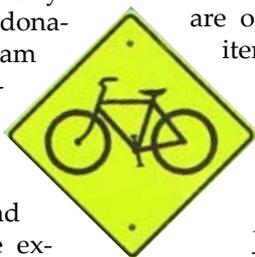
State Historical Museum

The State Historical Society of Iowa is seeking permanent donations of ride-specific and team memorabilia from past organized cycling events held in Iowa. Donated artifacts will be incorporated into the State's collection and used in future interpretive exhibits. T-Shirts, jerseys, patches, hats and other items identifying team

affiliation or marketing a cycling event are of particular interest. Other items will also be considered.

If you have items for donations or would like further information please contact:

Jack Lufkin, Curator
Email: jack.lufkin@iowa.gov
Telephone: (515) 281-8295



DAY 7 - MT. PLEASANT TO BURLINGTON

Of the 17 counties the route passes through this year, Des Moines County, in southeastern Iowa, has the greatest number of recorded sites, currently at 1070.

Flint knapping is the process by which stone or lithics tools are made. A flint knapper uses a hammerstone to chip away at a core to create a projectile point or other tool.



Keep an eye out for Kevin who will be flintknapping at overnight stops.

Geology and Archaeology

Geology plays an important role in the field of archaeology. Since prehistoric artifact assemblages are so often dominated by lithic materials, geologic sourcing is routinely performed to address issues including trade, the movement of people, and social interaction. For over 12,000 years Native Americans have utilized chert to create an assortment of stone tools, and Iowa's bedrock contains a large variety of quality, knappable, lithic raw materials. Two of the most prevalent types of chert found in archaeological sites in southeast Iowa are Keokuk and Burlington chert, both of which may be seen in outcroppings along the Day 7 leg of the route, on our way into Burlington.



Keokuk chert outcrop, courtesy of Ray Anderson, Iowa Geological Survey.

Watch out for riders wearing these jerseys!!!!



Kevin Verhulst flintknapping, photographs courtesy of Mary De La Garza



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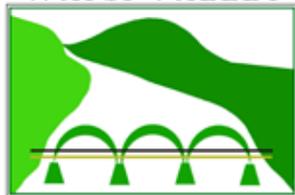


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