

= Iowa archaeology =

The archaeology of Iowa is the study of the buried remains of human culture within the state of Iowa from the earliest prehistoric through the late historic periods . When the American Indians first arrived in what is now Iowa more than 13 @, @ 000 years ago , they were hunters and gatherers living in a Pleistocene glacial landscape . By the time European explorers visited Iowa , American Indians were largely settled farmers with complex economic , social , and political systems . This transformation happened gradually . During the Archaic period (10 @, @ 500 ? 2 @, @ 800 years ago) American Indians adapted to local environments and ecosystems , slowly becoming more sedentary as populations increased . More than 3 @, @ 000 years ago , during the Late Archaic period , American Indians in Iowa began utilizing domesticated plants . The subsequent Woodland period saw an increase on the reliance on agriculture and social complexity , with increased use of mounds , ceramics , and specialized subsistence . During the Late Prehistoric period (beginning about AD 900) increased use of maize and social changes led to social flourishing and nucleated settlements . The arrival of European trade goods and diseases in the Protohistoric period led to dramatic population shifts and economic and social upheaval , with the arrival of new tribes and early European explorers and traders . During the Historical period European traders and American Indians in Iowa gave way to American settlers and Iowa was transformed into an agricultural state .

= = Iowa archaeologists = =

Archaeologists have studied the prehistory of Iowa since the mid @-@ 19th century , when large American Indian mounds were first observed along the Mississippi . Early archaeologists such as S.V. Proudfit and Theodore Lewis documented large sites such as earthworks , mounds , and earthlodges . Truly systematic recording of Iowa sites began with Charles R. Keyes and Ellison Orr ? s surveys and excavations beginning in the 1920s . Documenting hundreds of sites , often just before they disappeared under the plow , Keyes ? and Orr ? s work led to the formation of the Iowa Archaeological Survey , the Iowa Archeological Society , and the designation of Effigy Mounds National Monument . After their deaths in 1951 , the Survey was disbanded , and their efforts were continued by the University of Iowa ? s Department of Sociology and Anthropology , which formed the Office of the State Archaeologist (OSA) in 1959 . The OSA maintains an extensive list of more than 23 @, @ 000 recorded archaeological sites in Iowa , and conducts survey and excavation across the state . Other institutions conducting archaeological research in Iowa include the State Historical Society of Iowa , the Iowa Archeological Society , the University of Iowa , Iowa State University , Grinnell College , Luther College , and private archaeological firms . Professional archaeologists in Iowa are represented by the Association of Iowa Archaeologists . Iowa archaeology grew dramatically beginning in the 1960s with the introduction of Cultural Resources Management legislation that required archaeological survey and excavation at many federal projects in Iowa .

= = Paleoindian (13 @, @ 500 ? 10 @, @ 500 years ago) = =

Paleoindian hunters and gatherers were the first occupants of Iowa , entering the state at the end of the Pleistocene glacial period . At the time the state was covered by tundra , conifer forests , and deciduous forests . Areas immediately north of Des Moines extending to Minnesota were covered by the receding Des Moines Lobe , a large glacier system . Highly mobile , their sites are scattered across Iowa and are noted for their large stone points . While Paleoindians were traditionally viewed as big game hunters , more recent research suggests much of their subsistence was derived from small game and wild plants . Paleoindian points are found throughout Iowa , but almost no intact Paleoindian sites have been excavated , probably because they were ephemeral and are now either destroyed by plowing or are very deeply buried in river valleys .

= = Clovis and other Early Paleoindian = =

The oldest artifacts found in Iowa are Clovis points , large lanceolate points found occasionally in all parts of the state except for the Des Moines Lobe . Possible sources of game were giant Pleistocene megafauna , including mammoth , mastodon , and giant forms of bison , all of which are now extinct . While widespread , only two Clovis sites have been excavated in Iowa . The Rummells @-@ Maske site is a Clovis site in Cedar County ; unfortunately , this site was damaged by plowing , although 20 points and point fragments were recovered . The Carlisle Clovis Cache Site in Warren County contained 38 unfinished stone tools that appear to date to the Clovis period , but these results have not yet been published .

Other Iowa Early Paleoindian points include Gainey , a point that appears to be intermediate between Clovis and Folsom . Gainey points were also recovered at Rummells @-@ Maske . While Folsom points are found throughout Iowa , especially western Iowa , none have been excavated in a well @-@ preserved site .

= = = Dalton and other Late Paleoindian = = =

At the beginning of the glacial @-@ free Holocene Epoch , humans in Iowa utilized projectile point found throughout the mid @-@ continent , including Dalton , Fayette , Agate Basin , and Hell Gap . Humans were still highly mobile , and by this time most of the Pleistocene megafauna had gone extinct . As with the Early Paleoindian period , no intact Late Paleoindian sites have been excavated in Iowa .

= = Archaic Period = =

The Archaic is the longest period of Iowa prehistory , lasting about 8 @, @ 000 years . Overall , populations appear to have increased in Iowa during the Archaic , despite a changing climate . During this time American Indians transitioned from highly mobile hunters and gatherers with large ranges towards a focus on local resources and ecosystems . Domesticated plants appeared in Iowa towards the end of the Archaic .

= = = Early Archaic (10 @, @ 500 ? 7 @, @ 500 years ago) = = =

During the Early Archaic period regional variation in point forms is seen in Iowa , and Indians adapted to more localized forms of hunting and gathering while probably maintaining seasonal movements from camp to camp . Common stone tool types are Corner @-@ notched St. Charles points and Thebes Knives . Soon Hardin and Kirk points appear in Iowa as well . Excavated Early Archaic sites in Iowa include the Soldow Site , Horizons IIIa and II of the Cherokee Sewer Site , and the Simonsen Site .

= = = Middle Archaic (7 @, @ 500 ? 5 @, @ 000 years ago) = = =

Temperatures rose in the mid @-@ continent during the Middle Archaic , a warming trend known as the Hypsithermal . Grasslands expanded east , forests became less common , and many Iowa lakes shrank or disappeared . Humans responded by diversifying their subsistence strategy : eastern Iowa saw a shift towards river resources , and western Iowa towards Plains resources . Excavated sites in eastern and central Iowa include the Brash Site , the Gast Spring Site , and the Ed ? s Meadow Site . Western Iowa sites include the Turin Site , Horizon I of the Cherokee Sewer Site , and the Pony Creek Site .

= = = Late Archaic (5 @, @ 000 ? 2 @, @ 800 years ago) = = =

In the Late Archaic the climate became more similar to modern with the end of the Hypsithermal . The number of Late Archaic Sites increased in Iowa , perhaps reflective of increased populations

allowed by climate change and new subsistence strategies . The Late Archaic sees the first indication of mound building in Iowa , as well as direct evidence of domesticated plants , and large , long @-@ term settlements . The Red Ocher Culture appeared in northeast Iowa , associated with copper artifacts and mound building . Numerous Late Archaic sites have been excavated in eastern Iowa , some showing the gradual adaptation of cultigens , including squash , little barley , marsh elder , and barnyard grass . Sites with evidence for early cultigens in Iowa include the Edgewater Park Site in Coralville , the Gast Spring Site , and the Sand Run Slough West Site . In western Iowa , Late Archaic sites are common , however large bison killing or processing sites are less common than before , and there is little evidence for the use of domesticated plants .

= = Woodland Period = =

During the Woodland period , many American Indians in Iowa shifted away from hunting and gathering and used more domesticated plants , although wild food was still important . Ceramics , the bow and arrow , burial mounds , and evidence of political and social hierarchy became common at Woodland sites in Iowa .

= = = Early Woodland (800 BC ? 200 BC) = = =

The Early Woodland period saw the introduction of ceramics to Iowa , including Marion Thick and Black Sand types . Marion Thick may have originated with the nucleated Late Archaic cultures of the Upper Midwest , and was widespread in distribution . Early Woodland Indians in eastern Iowa built large burial mounds in the Mississippi River region , and participated in long @-@ distance trade of exotic raw material . This long @-@ distance trade may have been the forerunner of the later Havana @-@ Hopewell trading sphere . In north @-@ central Iowa , Early Woodland peoples appear to have interacted more directly with the Prairie Lakes region of Minnesota . Numerous Early Woodland sites have been excavated in Iowa , including the Gast Spring Site , and many sites which have not been formally published .

= = = Middle Woodland (200 BC ? 400 AD) = = =

The Middle Woodland Indians of eastern Iowa participated at the edge of the Havana and Hopewell interaction networks . This cultural connection to the East is seen in the construction of large mounds , earthworks , and the trade of exotic goods over very long distances . There were several large earthwork enclosures in Iowa along the Mississippi that date to the Middle Woodland period , but none in the interior of the state , indicating Iowa is the western edge of Havana @-@ Hopewell influence . The Toolesboro Mound Group in Louisa County included a large octagonal earthen enclosure that covered several acres ; earthworks of this style are indicative of the monumental construction once seen in Havana , Illinois along the Illinois River and sites in the Ohio River drainage including Chillicothe and Newark , Ohio . Hopewell trading networks were quite extensive , with obsidian from the Yellowstone area , copper from Lake Superior , and shells from the Gulf Coast appearing in Middle Woodland Iowa sites . Sites in eastern Iowa appeared to nucleate , vacating much of the hinterlands . Western Iowa appears to have been not directly involved in this exchange network , and the Havana @-@ Hopewell flourishing did not extend much above the Kansas City area of the Missouri River .

= = = Late Woodland (400 ? 1250 AD) = = =

The Late Woodland Period was once considered to be relatively unimportant and uninteresting compared to earlier and later periods , but recent research shows unexpected cultural complexity . Late Woodland sites are more dispersed than Middle Woodland sites , but they are apparently more numerous . Gone are the complex earthworks and long @-@ distance trade networks , but this does not appear to be a cultural collapse , since Late Woodland sites and artifact types overlap with and

transition from Middle Woodland sites . Technical changes of the Late Woodland include the use of true arrow heads , thinner and larger ceramics with less elaborate decorations , and the adaptation of new crops , including maize . Numerous regional variations and phases have been defined in Iowa , based in large extent on differences of ceramic form and decoration . Excavations at Late Woodland sites are common , some of these sites showing surprising complexity . The Gast Farm Site excavations revealed a complex settlement associated with a midden of refuse 100 m in diameter . Large storage and food processing pits , trash middens , and other features were excavated . Occupants utilized acorns , other nuts and fruits , goosefoot , little barley , maygrass , sunflower , fish , birds , deer , muskrat , and turtle . There was little evidence of long @-@ distance trade . The Rainbow and M.A.D. sites provide a glimpse into the Late Archaic of western Iowa . At Rainbow , a large house was excavated , showing evidence of reuse and possible joint occupation by two families . Mound building became more common during the Late Woodland Period , large groups of mounds appeared including the Slinde Mound Group , and the Fish Farm Mound Group .

= = = Effigy Mounds = = =

The Late Woodland in Iowa is perhaps best known for effigy mounds , large , low mounds shaped like animals such as birds and bears . Effigy mounds are distributed across southern Wisconsin , northern Illinois , and northeast Iowa . A large concentration of mounds in several groups is preserved at Effigy Mounds National Monument . Like most mounds in Iowa , excavation reveals that these mounds were commonly used as sacred burial locations but contain few artifacts . Recent ground @-@ penetrating radar survey of selected mounds at Effigy Mounds National Monument reveal that many are badly disturbed , but others appear to be comparatively intact . The Folkert Mound Group in central Iowa contains an enigmatic cruciform mound that may or may not be astronomically aligned .

= = Late Prehistoric (900 ? 1600) = =

Maize appears to have been the catalyst for change in the Late Prehistoric period in Iowa . While maize had been a minor crop in the Woodland Period , many archaeologists believe new varieties of maize were introduced to the region that produced higher yields , allowing for a population boom . This increase in population , combined with the potential for surplus and growing tensions over control of territory , appears to have led to large nucleated settlements throughout the eastern U.S. Although this manifested itself earliest along the Mississippi south of Iowa , the earliest Late Prehistoric cultures appeared in the western part of the state .

= = = Great Oasis (ca . 900 ? 1100) = = =

Great Oasis sites appeared in the Missouri River drainage , and have attributes of both Late Woodland and Late Prehistoric cultures . Great Oasis cultures extended through the eastern Plains from Iowa to South Dakota . Developing independently from the eastern Mississippian cultures , Great Oasis sites display large sites along major stream terraces , increased reliance on agriculture combined with hunting and gathering , substantial pit earth lodges , and a transition from Late Woodland to Late Prehistoric ceramic forms . Overall , Great Oasis appears to have been a regional adaptation of new forms of farming and settlement patterns , including seasonal occupation of different ecological zones , that includes aspects of Late Woodland and the subsequent Middle Missouri Tradition .

= = = Mill Creek and Glenwood (1100 ? 1300) = = =

In northwestern Iowa , Great Oasis underwent dramatic changes as Mill Creek sites appeared . While Mill Creek has many stylistic similarities with Great Oasis and some Mill Creek sites contain Great Oasis ceramic forms , Mill Creek sites are substantially different . Mill Creek sites became

nucleated , often fortified , had a much higher dependence on maize and bison hunting , show substantial evidence of long @-@ distance trade , and appear to have been occupied year @-@ round . The Phipps and Chan @-@ Ya @-@ Ta sites are classic examples . Glenwood culture sites in southwest Iowa near the Missouri River appear to be unrelated to the earlier Great Oasis sites , and are notable for their large earthlodge sites . Glenwood sites appear to have been more oriented in lifeways and trade with the Central Plains Tradition cultures to the west than with the Mississippian cultures to the southeast . Around 1300 AD Mill Creek and Glenwood sites in Iowa disappeared , replaced by the rapidly spreading Oneota cultures .

= = = Oneota (1250 ? 1700) = = =

Very large Mississippian centers appeared around AD 1000 , with enormous earthen pyramids , palisades , and extreme social hierarchy . The earliest large Mississippian center was Cahokia , east of St. Louis . Cahokia appears to have dominated trade in the upper Mississippi , with satellite or closely aligned settlements as far as Aztalan in Wisconsin . In Iowa , there is little evidence of Mississippian occupation , and the Late Woodland lasts longer in the east than in the west . This is puzzling , given the proximity to Mississippian cultures ; it is possible that the nearby presence of the large , hierarchal Mississippian trading network inhibited local development . After the decline of the Cahokia network after AD 1250 the local Late Woodland populations expanded in complexity , developing large nucleated villages and their own trading network , known as Oneota . Oneota , named by Charles Keyes for a river in northeast Iowa , was a large cultural manifestation that covered the Upper Midwest at the edge of the Mississippian cultures . Oneota sites are easily identifiable by the globular , shell tempered pots , which typically have strap handles and incised designs . Pots of this kind were well designed for the cooking of porridge and foods made from the various cultivated foods of the area . Important Oneota sites in Iowa include Kingston , McKinney , Christenson , Blood Run , Hartley Fort , the Lane Enclosure , three sites in downtown Des Moines , and sites along the Upper Iowa River , including several large earthwork enclosures . After the decline of the Mill Creek and Glenwood cultures in western Iowa , Oneota cultures appeared across the state . It is widely accepted that the Oneota were the ancestors of modern American Indian tribes associated with Iowa , including the Ioway , Ho @-@ Chunk (Winnebago) , Otoe , Missouri , and Omaha .

= = Protohistoric (1600 ? 1800) = =

Protohistoric refers to the period when American Indians were exposed to European trade items and large population shifts occurred because of introduced European diseases and warfare , but there is very little direct written documentation . Explorers such as Marquette and Joliet occasionally documented American Indians along the Mississippi in Iowa , but it was not until the early 19th century that regular written accounts of American Indians in Iowa became common . American Indians in the early Protohistoric period continued many aspects of Oneota culture , but soon almost all indigenous technology disappeared , including ceramics and stone tool production . It was during this period that the Meskwaki (Fox) and Sauk appeared in eastern Iowa , displaced from their homelands in the east . Important protohistoric sites include Milford ; Blood Run ; Gillett Grove ; and Iowa City .

= = Historical (1800 ? present) = =

The earliest European forts and settlements were established by traders beginning in the 1680s . Almost none of these ephemeral early historical sites have been located archaeologically . Julien Dubuque ' s Mines of Spain settlement and adjacent Meskwaki village occupied in the late 18th century and early 19th century , has been the subject of numerous archaeological surveys . Fort Madison (1808 ? 1813) , the first American settlement and the first American fort in Iowa , was partially excavated in 1965 . American settlement began in earnest in the 1830s , and the official

removal of American Indians from Iowa was completed by 1852 . Several of these historical sites have been excavated , including Gilbert ? s Trading Post. and Fort Atkinson . Archaeologists have also studied historical American settlements , including excavations at the Plum Grove Historic House , the Buxton African @-@ American community , and the Bowen ? s Prairie community .