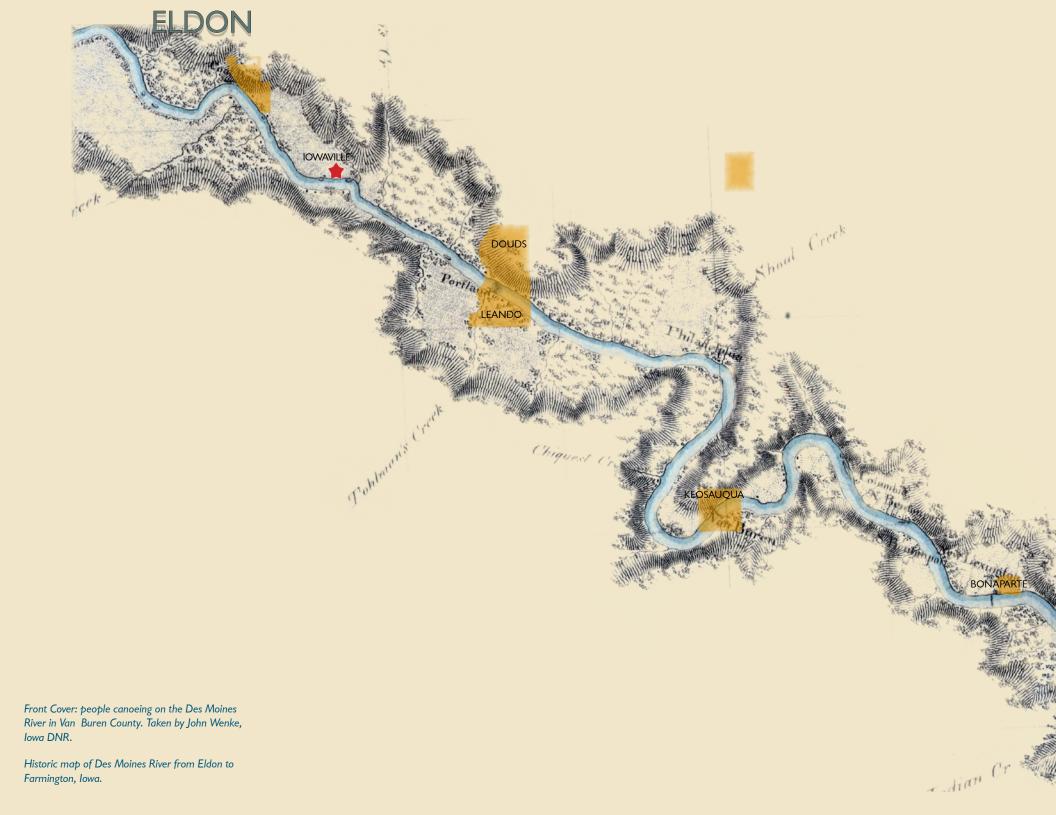
A RIVER OF UNRIVALED ADVANTAGES



Life Along
The Lower
Des Moines River



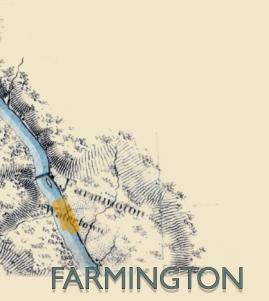
A RIVER OF UNRIVALED ADVANTAGES: LIFE ALONG THE LOWER DES MOINES RIVER

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Design by Angela R. Collins

Funded by a grant received through the Iowa Department of Natural Resources





Native Americans watch Marquette and Joliet paddle down the Mississippi River. University of Iowa Museum of Natural History exhibit.



Des Moines River at Lacey-Keosauqua State Park. Photographed by John Wenck.

Introduction

Water has always been of vital importance to life on earth. The evolution of plants, animals, and human societies has been profoundly affected by its presence, absence, and quality. From the time that the earliest people set foot in the state to the present day, lowa's river valley forests and backwater wetlands have provided a wealth of microenvironments that offer diverse plant and animal resources to fulfill human needs. The waterways provided routes for travel, trade, and communication and the rich organic sediments deposited by floods formed the foundation for agriculture as early as 2,800 to 3,000 years ago. Coal, clay, and other minerals dug from the river banks were used for handcrafts and industry and the rivers themselves often provided power to turn the mills and drive the machines of those industries.

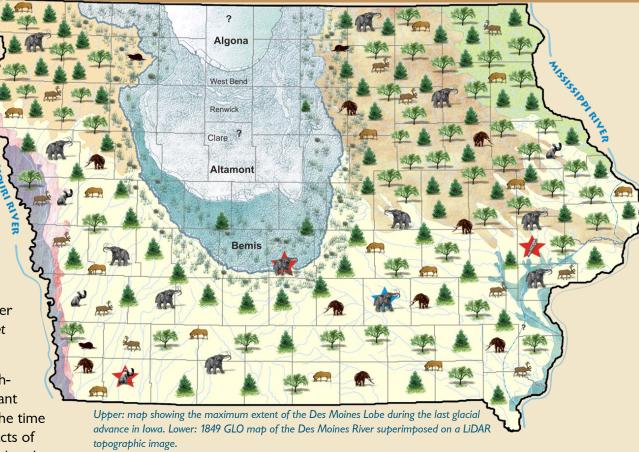
Why Do They Call It the Des Moines River?

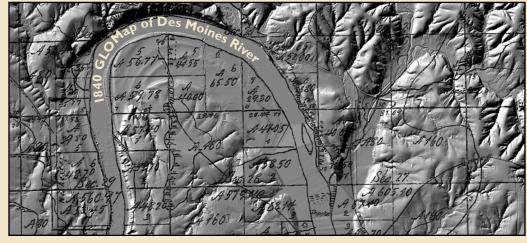
The Dakota called it "river-of-the-red-stone". They named it for the red rocks (Sioux quartzite) found along its banks in Minnesota. Farther downstream, the loway called it "the-lots-of-raccoons-river". Although these names may have been known by early European explorers they were never recorded on any of their maps. The name Des Moines comes from the French. During the late 1700s French explorers met a group from the Illini nation called the *Moingueas* living along the river in central lowa. The French abbreviated the name to "Les Moines" and called the river they lived along, "Des Moines". Since that label was recorded on French maps it became the name by which the river is known today.

THE NATURAL HISTORY OF THE DES MOINES RIVER

The Des Moines River rises at the Shetek Lake Group in Minnesota and flows 525 miles passing diagonally through lowa and joining the Mississippi at Keokuk. Although perhaps following the course of an earlier "proto-Des Moines" channel, the present valley originated about 12,300 years ago as a major conduit for glacial meltwater (Bettis and Hoyer 1986). The large quantity of water flowing away from the melting continental glacier carved a deep, often gorge-like, channel into the underlying Wisconsinan loess, the older glacial tills, and the Pennsylvanian bedrock. The Des Moines River also cross-cut the Beaver Creek channel north of the city of Des Moines, capturing that older river's drainage (Bettis and Hoyer 1986). By 11,500 B.P. (Before Present), the last glacial ice, the Des Moines Lobe, had left the state and the flow of water was reduced to the smaller volumes seen today (Bettis et al. 1996:2; Artz 2013).

The original General Land Office (GLO) surveys of southeastern lowa offer clues as to what the early modern plant communities along the river might have been like. By the time the GLO surveys were conducted in the 1840s, large tracts of the Des Moines River valley and adjacent uplands were already under cultivation. Uncultivated portions were largely covered with forests or more open woodlands, with a few tall grass prairies on upland divides. Information in the GLO survey notes (Iowa Land Office 1938) indicates that three kinds of forest were present. The Des Moines River floodplain was characterized by water loving trees such as sycamore, cottonwood, maple, and hackberry. The loess-mantled uplands and benches supported oak-hickory or scrubby oak-hickory-hazelnut communities. Data from soil analyses indicate that these plant communities were widespread before the land was cleared for cultivation (Artz 1991:7-8).





THE GEOLOGY OF THE DES MOINES RIVER VALLEY

Tropical Climate of the Paleozoic Era

The Des Moines River helps to tell the story of Iowa's creation as it cuts down through sediment and stone exposing the bedrock that provides clues to the deep history of the land. Bedrock exposures can be seen in the wooded bluffs along the river and in the steep ravines of smaller creeks that flow into the river from the south and west (good exposures are visible in Lacey-Keosauqua State Park). Because of continental drift, what is now North America occupied a more southerly global position during the Paleozoic Era than it does today (Witzke 2004:55). During the Mississippian and Pennsylvanian Periods Iowa lay near the equator. The sandstone and limestone beds that are exposed



lowa's global position relative to the equator during the Late Mississippian period 325 million years ago: http://cpgeosystems.com/images/NAM5.jpg.

along the river today were deposited in shallow tropical seas, near-shore environments, and in rivers and estuaries that dominated the ancient landscape. During the Mississippian Period, 325 to 335 million years ago, an arid tropical climate prevailed. The seas became shallow and began to retreat. Eventually they withdrew and the dry land was exposed to a long period of erosion that lasted more than 10 million years. As the continent drifted into a humid tropical, equatorial climate zone during the Pennsylvanian Period around 310 million years ago, shallow seas and swamps once again covered southeastern lowa. The Pennsylvanian "coal measures" found across southern lowa were deposited in swampy lowlands of the near-shore environments of the time (Witzke 2004:55).

Changing Environment – The Pleistocene Ice Age to the Present

More recent geological deposits visible along the Des Moines River valley are from the Quaternary Period which began about 2.6 million years ago. By this time the continents had reached the positions they now hold. The earliest part of the Quaternary Period is the Pleistocene epoch, commonly known as the Ice Age. The Pleistocene was characterized by episodic advances of continental glaciers. Southern lowa was covered by glaciers many times during this period. The glaciers deposited thick layers of gravelly till and sand across the landscape and occasionally left behind large boulders, called erratics, that were transported within or beneath the ice. A number of erratics, some several feet in diameter.



Glacial erratic at Duckworth Creek, in Lacey-Keosauqua State Park. Courtesy of Iowa Geological Survey.

can be seen in Lacey-Keosauqua State Park. They are metamorphic or igneous in origin, testifying to the great distances that they were transported.

The last episode of glaciation in southeastern lowa took place about 500,000 years ago. The more recent Illinoian and Wisconsinan glacial advances did not reach as far south as Van Buren County (Hallberg 1980; Tassier-Surine 2004:51). After the glaciers retreated from the northern portions of the region, a mantle of windblown loess was deposited across the land. Loess is exceptionally uniform, fine-grained particles made up mostly of quartz. The particles are so fine that they could be blown around by the wind and, under the right conditions, piled up like deep snow drifts. Because the grains are angular, they stick together and can form steepsided bluffs like those seen in the Loess Hills in western lowa.

Since the end of the Pleistocene erosional and depositional processes have erased or buried many of the surface features left by the glaciers. These processes created the steeply rolling landscape and well-established drainage divides that characterize the region today. Geologists refer to this landscape as the Southern Iowa NEBRASKA Drift Plain (Tassier-Surine 2004:51-52). Loess is found throughout the region and is often exposed along creek and river banks. In some locations it is as much as eight feet thick.

During the Pleistocene, southern lowa was likely several degrees cooler on average than today. Spruce and larch were the dominant trees in the eastern two thirds of the state (Baker et al. 1990; Peterson and Wendt 1999:4). Paleontologists have identified 88 taxa of Pleistocene mammals in the state. Many of these creatures are still extant, having adapted to the changing climate or migrated to more suitable environments. Most of the distinctive giant megafauna that are often associated with the Ice Age, however, have become extinct. Late Pleistocene megafauna whose remains have been found in lowa include giant beavers weighing up to 300 pounds, the American lion, giant short-faced bear, muskox, two species of giant ground

MINNESOTA WISCONSIN Paleozoic Mississippi River Northwest Iowa Plains Plateau Alluvial Plain Iowan Surface **Des Moines** East-Central Lobe Missouri River Alluvial Plain Iowa Drift Plain Loess Hills Iowa-Cedar Lowland Wilal Plain Des Moines River Southern Iowa Drift Plain Van Buren Landform regions of lowa. **MISSOURI** County

sloths, giant armadillos, mastodons, and four species of mammoth. Beginning in 2012 excavations near the town of Oskaloosa, lowa have produced fossil remains of both Columbian and Wooly mammoths. Radiocarbon dates, logs, and other plant remains found in association with these bones will make significant contributions to

our knowledge of what the late Ice Age environment was like in this portion of the state.

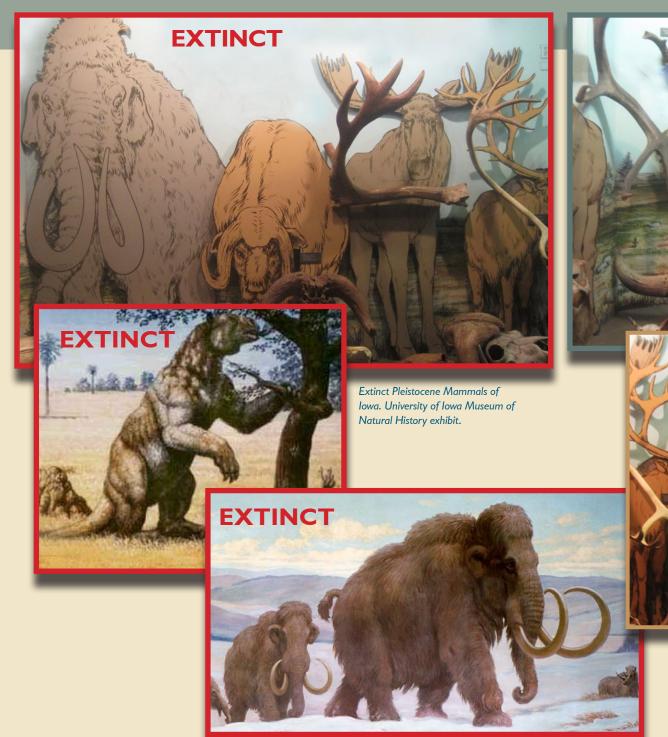
The end of the Pleistocene epoch is marked by the retreat of the last continental glacier around 11,000 years ago ushering in the modern period known as the Holocene epoch. The Early Holocene was characterized by a gradual warming

PLEISTOCENE FAUNA IN IOWA

trend that began about 11,500 B.P. (Before Present) and lasted until 8,000 B.P. The warmer, dryer climate resulted in dramatic changes in the plant and animal populations. Communities in western lowa changed to a prairie biome, and vegetation in central and eastern lowa shifted from a conifer-dominated environment to mixed deciduous forests of oak and hickory (Baker et al. 1990; Bettis et al. 1990; Peterson and Wendt 1999:5).

The warm dry climatic episode ended about 5,000 B.P., and conditions gradually became more like those we know today. Throughout the Holocene, familiar modern animals inhabited lowa. In fact, wildlife was a conspicuous feature of the land commented upon by early European visitors to the state. The variety was astonishing, more than 450 species lived in the state, and at least another 190 migrated through or occurred occasionally (Dinsmore 1994:1-2). Faunal assemblages from archaeological sites in southeast lowa document the presence of deer, elk, bison, wolf, and bear, along with a variety of smaller animals including fur-bearers such as bobcat, otter, fox, raccoon, skunk, muskrat, beaver, and mink (Dinsmore 1994; Peterson and Wendt 1999:5). Birds included eagles, trumpeter swans, passenger pigeons, prairie chickens, pelicans, and whooping cranes, along with game birds like turkey, grouse, waterfowl, and song birds which are still abundant today (Dinsmore 1994).

Taxon	Common Name	Taxon	Common Name
Marsupials (Marsupialia) Insectivores (Insectovora)	oppossum masked shrew northern water shrew arctic shrew pygmy shrew northern short-tail shrew Kirkland's short-tail shrew	Rodents (Rodentia), Continued	western jumping mouse woodchuck or ground hog marmots gray and fox squirrel southern flying squirrel porcupine coyote gray wolf
Bats (Chiroptera) Rabbits and Hares	least shrew eastern mole eastern pipistrel northern long-eared bat plain nosed bat big brown bat cottontails hares giant beaver eastern chipmunk least chipmunk 13-lined ground squirrel Franklin's ground squirrel prairie dog red squirrel northern pocket gopher plains pocket gopher deer mouse	Carnivores (Carnivora)	American lion bobcat black bear short-faced bear mink long-tailed weasel
(Lagomorpha) Rodents (Rodentia)			striped skunk raccoon red fox badger
		Anteaters, Armadillos, Sloths (Edentata)	Jefferson's sloth Harlin's ground sloth beautiful armadillo (giant)
		Odd-Toed Animals (Perissodactyla)	complex-toothed horse Niobrara horse Scott's horse 3-toed horse
	white-footed mouse grasshopper mouse harvest mouse woodrats boreal red-back vole heather vole meadow vole yellow-cheeked vole prairie vole woodland vole tundra vole singing vole yellow-nosed vole collard lemming brown lemming muskrat southern bog lemming meadow jumping mouse	Even-Toed Animals (Artiodactyla)	flat-headed peccary caribou Hartan's muskox fugitive deer shrub ox moose,extinct bison extinct bison camel stag moose elk (wapiti) whitetail deer muskox
		Elephants (Proboscidea)	Columbian mammoth Imperial mammoth wooly mammoth Jefferson's mammoth American mastodon extinct mastodont





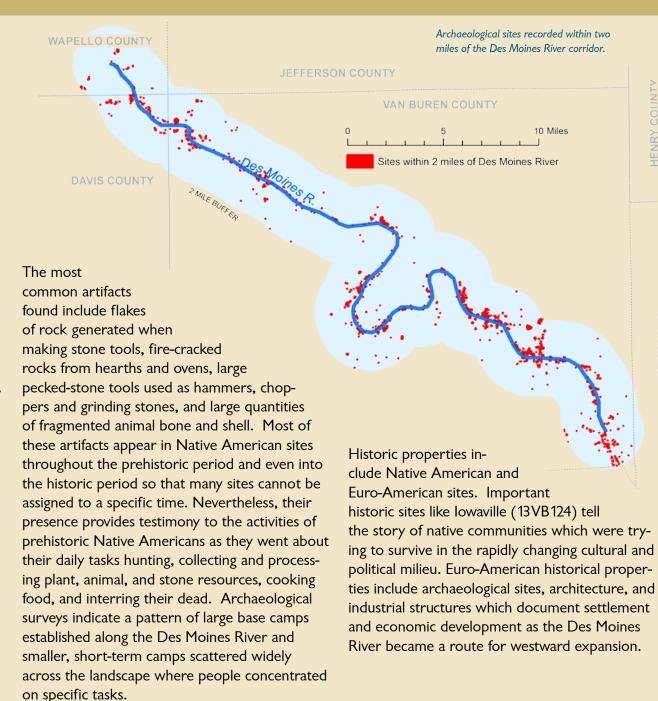
Extant Pleistocene Mammals of Iowa. University of Iowa Museum of Natural History exhibit.

THE ARCHAEOLOGICAL RECORD

"Prehistory" and "history" are terms used by archaeologists and historians to indicate the presence or absence of written records. Historians study the past using books, letters, journals, deeds, maps, and other forms of written documents. Historic archaeologists use these records along with artifacts, architecture, and other structures to study the period that begins with the advent of written documentation in any given area. The prehistoric period covers all of the time before the introduction of writing. To learn about past lives, prehistoric archaeologists have only the material objects that people left behind and evidence of the ways that they modified their environment.

A total of 767 archaeological sites have been recorded in Van Buren County, 578 of these are within 2 miles of the Des Moines River. Much of the county, however, has not been systematically studied, and the number of sites recorded is probably only a fraction of what actually exists. Archaeological surveys near Bonaparte (Hirst 1985) and at Cedar Bluff State Park (Peterson and Wendt 1999) suggest that site density along the river could be as high as 10.2 sites per 100 acres (Artz 2004:45).

Documented archaeological properties include prehistoric Native American-, historic Native American-, and historic Euro-American-sites. The types of prehistoric sites include villages, short term camps, lithic workshops, shell middens, mounds and other earthworks, burials, quarries, and trails. Few of these sites have been the subject of controlled scientific investigations.



FIRST PEOPLE TO FIRST FARMERS

For at least 8,500 years, the lifeways of Native people were focused on a hunting and gathering economy. People generally lived in small nomadic groups. Although they moved often these people were certainly not wandering randomly around the landscape. They knew their environment intimately and changed their camps systematically to take advantage of resources which were distributed differentially across the landscape or whose availability changed seasonally. Group size was probably also variable as communities came together or split apart for seasonal or task-specific activities.

The archaeological record indicates that people began moving into Iowa during the Pleistocene hunting mammoths, bison, and other giant mammals. Isolated surface finds of time diagnostic artifacts suggest that people were in Van Buren and adjacent counties by at least the Late Paleoindian or Early Archaic period 10,500 to 8,000 years ago (Peterson and Wendt 1999:6; Spears 1973, 1978, 1981; Hirst 1985). They lived in

Atlatl thrower.

small groups that moved their camps often as they hunted and gathered wild plant foods. Their sites are most noted for evidence that they hunted Pleistocene megafauna although recent research indicates that they hunted smaller animals as well.

At the end of the Pleistocene, lowa's climate gradually became warmer and dryer. The giant land mammals became extinct, emigrated, or gradually evolved into smaller, better adapted species. The cultural period which followed the

Paleoindian period is known to archaeologists as the Archaic. Archaic people were hunters and gatherers relying on a wide variety of plant and animal resources. They hunted with spears thrown with a hooked stick known as an atlatl and probably used traps and snares as well. Plant foods were processed with heavy grinding and chopping stones (Peterson and Wendt 1999:10).

To date there are no excavated Early
Archaic sites in Van
Buren County; however, surface finds indicate that people were indeed living here 8,000–3,000 years ago.

Private artifact collections from a site in Van Buren County (13VB610) include several distinctive

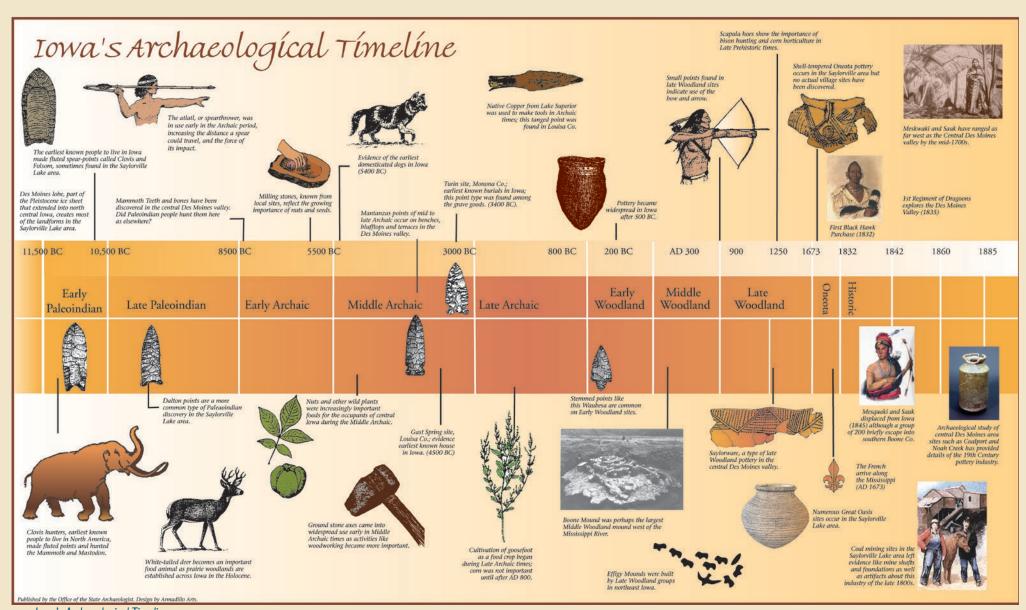




Upper: distinctive styles of Paleoindian projectile points found in Iowa. Lower: typical Archaic period projectile points found in Iowa.

projectile point types that suggest there was probably a substantial occupation in the area by the Late Archaic period (Artz 1991).

Plant remains from Late Archaic contexts include hickory nuts, walnuts, chenopod seeds, wild rice, ragweed, sunflower, and marsh elder. Chenopod, sunflower, and marsh elder are some of the earliest domesticated plants known from lowa. Their presence in Late Archaic sites in Louisa County suggests that people were cultivating these plants as early as 3,000 years ago. Although strong evidence for horticulture is still lacking, these developments signal the beginning of farming in lowa (Peterson and Wendt 1999:12; Asch and Green 1992).



Iowa's Archaeological Timeline.

MOUNDS AND MOUND BUILDERS

Increasingly diverse and complex lifeways characterize the Woodland period. During this time we see the first widespread appearance of ceramics and an expansion of agricultural practices. One of the first known, cultivated plants, little barley, has been identified in controlled excavations at Late Archaic and Early Woodland sites in southeast lowa. At first change was gradual. Early Woodland people cultivated some native plants but they do not appear to have played a major role. Hunting and gathering continued to be the primary subsistence activities (Alex 2000:87).

By the Middle Woodland things had changed dramatically. Some, but not all, of the groups living in lowa began to participate in an extensive inter-regional trade network. They were introduced to new ideas and cultural practices which focused on religious and ritual traditions surrounding burial of the dead. Although local groups adopted many ritual practices and materials goods, they also maintained their own distinct traditions as seen in their everyday artifacts such as pottery and stone tools. The distribution of these Middle Woodland sites suggests that the Mississippi and Des Moines rivers served as routes for this trade network (Alex 2000:108).

Probably the most visible prehistoric archaeological sites are the conical and oval mounds which can be seen on bluff tops and terraces above rivers and streams throughout the Midwest. These are sacred places that usually contain the graves of lowa's original residents. Mounds stand as a testament to their beliefs and the reverence accorded to their deceased. The practice of interring the dead in mounds began at the end of the Archaic period and became wide-spread during the

subsequent Woodland period (Alex 2000:79–82,104–108). The proliferation of burial mounds along the Des Moines, and almost every other drainage in Iowa, indicates that mound building was common by the Middle Woodland 2,100 to 1,550 years ago. The vast majority of the mounds found in Van Buren County are from Middle and Late Woodland times.

Twenty-eight sites containing mounds have been documented in Van Buren County (Iowa Site Files). Five mound groups are recorded within the boundaries of Lacey-Keosauqua State Park and a group of seven has been documented at the Iowaville Cemetery. Sadly, before laws were enacted that protect all human burials in Iowa, thousands of mounds were damaged or destroyed by construction, erosion, cultivation, and curiosity seekers.

By the Late Woodland period, 900 to 1,000 years ago, region-wide cultural influences had waned. Many of the local traditions that developed in the Middle Woodland continued, and Late Woodland material culture can be seen as having developed out of these traditions (Alex 2000:116). A number of Woodland period habitation sites have been identified along the river in Van Buren County. These sites are often situated on river terraces and reveal evidence of intense or frequent seasonal use. The strategic selection of river terraces would have placed these camps near the important river resources while elevating them above all but the most excessive flooding (Till and Lipsman 1978:22–23).



Burial mound in Lacey-Keosauqua State Park.

Picture of Sandy Point Mound Group at Harpers Ferry, in northeast Iowa.

THE MYTH OF THE MOUND BUILDERS

by Joe Artz

(originally published in Anderson, Raymond R., and Richard J. Langel (editors), 2004, *The Natural History of Lacey* Keosaugua State Park, Van Buren County, Iowa. Guidebook 76. Geological Society of Iowa, Iowa City, pp.47–49)

Native Americans have always understood that mounds contain the graves of their ancestors and are to be treated with reverence. In contrast, Euroamerican beliefs and practices have changed a great deal over the years. Many 19th century Americans believed that the burial mounds and other earthworks were the monuments of an extinct people that lived in North America prior to the Native Americans. This notion gave rise to the romanticized, and unfortunately racist, myth of "the Mound Builders" and led, equally unfortunately, to the widespread opening and looting of mounds (Silverberg 1968). By the end of the century, however, the Smithsonian Institution's Bureau of American Ethnology had begun a systematic, scientific survey of the prehistoric earthworks of the Upper Midwest (Thomas 1894). This survey administered a lethal dose of reality to the Mound Builder myth, proving that the mounds were built by the ancestors of modern Native Americans and not by lost tribes or vanished races (Willey and Sabloff 1993:47-49). Subsequently, interest in mounds among Euroamericans turned to the anthropological study of Native American mortuary customs, and to the demographic and physiological analysis of the human remains they contained.

Beginning in the mid-to-late 1970s American Indians grew increasingly affronted by the exhumation of their ancestors in the name of science. Archaeologists and Anthropologists came to accept this view (e.g., Anderson et al., 1978) and state and federal legislation was enacted to protect and preserve Native American burial sites from disturbance, including archaeological excavation. Iowa was the first state to enact such legislation, in 1976, making it an aggravated misdemeanor to knowingly disturb any human burial without lawful authority, regardless of the burial's age, and whether or not it is on private or public land (Iowa Code Chapter 716.5). Professional ethics among archaeologists today strongly discourage and usually prohibit the excavation of prehistoric mounds except under exceptional circumstances, and then only under extensive coordination with Native American spiritual leaders. Unfortunately, Native American beliefs about, and appreciation for, the mounds were not recognized by Euroamerican culture until hundreds of thousands of the features had been destroyed, often with little or no documentation.

Shell Midden (13VB6)

In 1869 workers digging a hole for a large post to anchor a ferry boat's guide rope discovered a prehistoric shell midden (13VB6) along the river's edge in Lacey-Keosauqua State Park (Artz 2004:470). When the site was investigated in 1961 the shell mound was described as being four feet thick. Subsequent investigations yielded Late Woodland pottery fragments and bones of deer, bear, wolf, dog, and turtle in association with the shell (Till 1979; Green 2002, lowa Site Files).

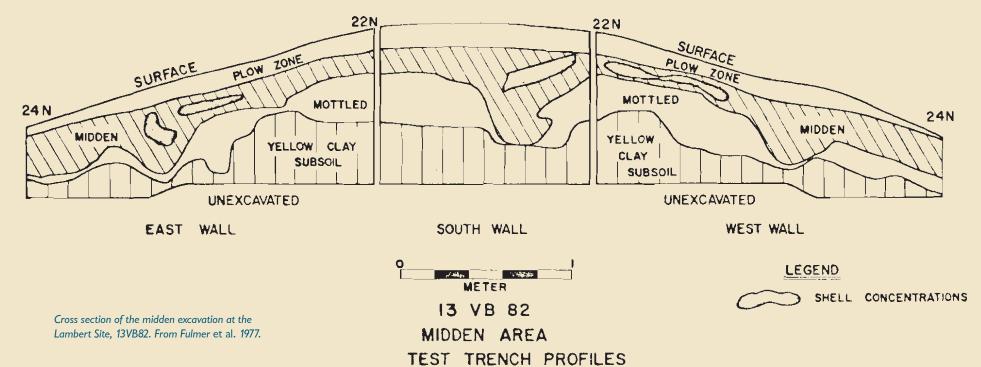
Woodland period ceramics and fresh water mussel shells have been found in association at 12

sites in Van Buren County (Iowa Site Files). In addition to the concentration at 13VB6, three additional sites have been reported as shell mounds or middens. These large quantities of discarded shells combined with remains of turtles and fish suggest an increasing utilization of resources obtained from the Des Moines River.

The Lambert Site (13VB82)

Late in 1976 excavations were undertaken by Darrel Fulmer, of the Office of the State Archaeologist, at a Woodland site near the town of Selma. At this site features were encountered which suggested that a possible house structure was present. This elliptical structure

was approximately 9 meters long and 3 meters wide. The artifacts recovered included stone hunting tools, drills, wood and hide-working tools, grinding stones, pottery fragments, minerals used as pigments, and several shell middens representing thousands of mussel shells (Fulmer et al. 1977:39). Two rock-lined basins, several concentrations of burned limestone, a refuse pit, and a burial in a pit covered with limestone slabs were also encountered. This diverse assortment of materials and features indicates that a variety of activities were conducted at this site and that either the occupation lasted for an extended period of time or that the location was often reused (Fulmer et al. 1977:46).



The house at the Lambert site was set upon a ridge overlooking the river, but well out of danger from floods, and was probably occupied in the summer by a family or extended household group. The situation of the site would have provided the inhabitants with easy access to plant and animal species from forest, prairie, and riverine/aquatic communities. Pottery from the site was associated with the end of the Middle Woodland and the beginning of the Late Woodland period

dating to around A.D. 500 to A.D. 600 (Fulmer et al. 1977:51).

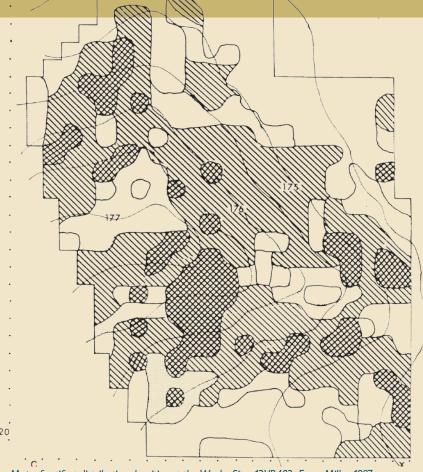
during excavations at the Lambert Site, 13VB82. From Fulmer et al. 1977.

The Wenke Site (13VB402)

Archaeologists do not always have to excavate a site to learn about its inhabitants. If a site has not been seriously disturbed, the patterns of tools and debris types that frequently appear together can indicate the performance of certain activities. For example, hammerstones, cores, and flaking debris indicate a flintknapping area where stone tools were made and repaired. Scrapers and cutting tools might indicate an area where hide, bone,

or wood was processed.

The Wenke Site (13VB402) is located on a terrace of Honey Creek near a small intermittent stream. Although never excavated, an intensive, systematic surface collection, mapping, and statistical analysis of the data have provided researchers with insights into the ways in which the site was utilized (Miller 1986, 1987). This location was apparently used frequently over a very long period of time. The types of pottery and projectile points that were recovered indicate that the most intensive use of the site came during the Late Woodland period; however, evidence of Early and Middle Woodland occupations were also identified. One spear point may be as old as the Late Archaic period, telling us that this site was used for centuries (Miller 1987:55).



Map of artifact distribution densities at the Wenke Site, 13VB402. From Miller 1987.

Nearby exposures of Keokuk chert, a stone used for making stone tools, appears to have been one attraction. Flint knapping tools, flakes, and other knapping debris were abundant telling us that this is a location where people came to gather raw material and make their stone tools. Large concentrations of fire-cracked rock and ceramics were also identified and grinding stones were common. This evidence suggests that plant processing and stone boiling were also important activities. While it is impossible to be certain, the Wenke site could have served as a fall hunting and gathering camp. Nuts and berries would have been plentiful along the creek and bluff area, while deer and small mammals also would have been present in the area (Miller 1987:55).

ONEOTA – ANCESTORS OF THE BÁXOJE (IOWAY)

The Late Prehistoric culture that dominated southeastern Iowa 800 years ago is called the Oneota culture. Oneota people tended to live in large permanent or semipermanent villages along major watercourses like the Des Moines River (Tiffany 1982). Their settlements were usually situated near ecotones where floodplain forest, upland forest, and prairie meet. This placed

them in a position to take advantage of a wide range of resources (Alex 2000:186). Smaller settlements have also been found, though these are also commonly clustered within the same general regions as the larger villages.

By 1,000 years ago corn agriculture had been introduced into eastern lowa

The cultivation of corn, beans, and squash was a mainstay for the Oneota. Their diet was supplemented with domesticated native plants, wild plants, hunting and fishing (Peterson and Wendt 1999:18). There appears to have been an emphasis on the use of wetland plant and animal resources (Alex 2000:186).

Oneota sites are commonly associated with distinctive shell tempered pottery, small triangular arrowheads, and carved pipestone artifacts. Careful analysis of linguistic patterns, oral traditions, and other historical and archaeological evidence has demonstrated that the historic loway, Ho-Chunk (Winnebago), and several other modern tribes are descendants of the Oneota culture (Mott 1938; Henning 1970).

With the exception of one site (13VB311) and a few shell tempered pottery fragments from the Lambert site, there has been little archaeological evidence of Oneota occupation found along the lower Des Moines River in Van Buren County. This absence is something of a mystery for archaeologists. It has been suggested that the Late Woodland cultures in this area were stable and well adapted and, therefore, less likely to adopt new cultural practices from "outside." It is also

possible that Oneota sites lie deeply buried in the late Holocene terraces and floodplains and so have not yet been found in archaeological surveys (Collins 1997:14).



from the Dixon Site, 13WD8.

AN ONEOTA VILLAGE - 13VB311

Site 13VB311 is situated on the big bend of the Des Moines near Keosauqua. Archaeologists have made several collections from the site and believe that it represents a substantial Oneota occupation such as a village (Collins 1997:13). The site appears to have been located along a trail that connected the southeastern lowa Oneota villages along the Mississippi and the Oneota villages in central Missouri (Collins 1989). It would not be surprising for an encampment or village to be established at the point where a major route for travel and trade crossed the Des Moines. The shallow water and hard rock riverbed would undoubtedly have made this a good place at which to safely ford the river. A village at this location would be able to control the flow of travelers and trade along the trail.

OVERLAND TRAVEL ROUTES – FOLLOWING THE TRAIL OF THE ONFOTA

Archaeological and ethnographic evidence suggests that when moving overland, Late Prehistoric and historic Native people traveled along the high ground which divides river drainages, rather than following along the winding, circuitous paths of the rivers. This would have allowed them to travel straighter, more direct routes, and to avoid the rugged terrain, dense vegetation, and frequent flooding of the river valleys (Henning 1970:29–30; Collins 1997:13).

Several of the early roads of lowa's territorial period followed a route along the ridge between the Des Moines and Skunk River drainages known as "The Divide Road" (Donham 1985:20–22). The Federal Military road that extended from Fort Madison to the Missouri border followed this route to Utica and then turned southward to Keosauqua, where it crossed the river. The Divide Road joined another overland road that ran from Prairie du Chien to the mouth of the Chariton River. This route also links regions where large numbers of Oneota sites are concentrated and it has been suggested that these military roads followed the original trails used by Native people for centuries (Collins 1997:13–14).

THE HONEY WAR

The Iowa Territory Irregulars Face Off Against the Missouri Militia (based on the Iowa History pages of the IAGenWeb project)

When the lowa Territory was carved out in 1838, the southern boundary was described as a line extending westward from the "Des Moines Rapids" to the Missouri River. But, where were the "Des Moines Rapids"? lowans claimed that the boundary began at a place on the Mississippi River near Montrose known as the "Des Moines Rapids". Missouri pointed to the ripples on the Des Moines River near Keosauqua and claimed that this was where the line was drawn. On this basis Missouri claimed a strip of land nearly 13 miles into lowa territory.

In 1839, Missouri Governor Lilburn Boggs sent agents into the disputed area to collect taxes. They were met with fury and driven away with pitchforks and clubs. Humiliated and angry, the tax agents cut down several valuable bee trees and extracted the honey, claiming it as partial payment for the taxes owed.

In retaliation, Iowans assembled a posse and the sheriff of Van Buren County "arrested" (some would say kidnapped) the sheriff of Clark County, Missouri. An angry Governor Boggs called out the Missouri militia. Although Iowa Territory had no militia, a group of 1,200 irregulars headed out to meet them.

Fortunately, calmer heads prevailed. Iowa Territorial Governor Robert Lucas sent a U.S. Marshall into Van Buren County to calm the militias. Everyone agreed that no one would attempt to collect taxes until the Federal government settled the dispute.

In 1849 the Supreme Court officially decided on the boundary. A line was drawn from the northwest corner of Missouri due east to the Des Moines River. It then followed the Des Moines to its confluence with the Mississippi at Keokuk. Wooden stakes were driven along the boundary every mile and every tenth marker was iron. The Missourian who cut down the bee trees was sued, found guilty, and fined \$1.50 in damages (Anderson 2004:23).

FIRST NATIONS

When Father Jacques Marquette and Louis Joliette first ventured down the Mississippi River into what is now called lowa, they found the land occupied by people of many nations. These groups spoke a variety of languages and had their own distinct social and political structures. Some tribes who historically occupied lowa were relatively recent arrivals to the area, like the Sauk and Meskwaki who migrated from points east, while others, the Báxoje or loway, had roots here that were centuries old.

Tribes with Major Historic Presence in Iowa

Siouan-Speaking Groups	Algonquian-Speaking Groups
Báxoje (loway)*	Meskwaki (Fox)*
Otoe	Sauk (Sac)*
Missouria	Potawatomi
Ho-Chunk (Winnebago)	Illiniwek*
Dakota Sioux	
Omaha	

^{*}Groups with a definite presence in Southeast Iowa

At least 14 tribes have affiliations with lowa. Of these ten had a major historic presence (Foster 2009). The groups with a definite presence in southeast lowa include the loway (Báxoje), Meskwaki, Sauk and Illiniwek.

Báxoje – The Ioway

The nation that we call the lowa or loway refer to themselves as Báxoje, usually translated as "Gray Heads" or "Gray Snow." They are Chiwere Siouan speakers and are closely related to the Otoe, Missouria, and Ho-Chunk (Winnebago). Linguistic and ethnographic evidence, supported by tribal traditions, suggests that

> these groups were once one people (Foster 2009:6-7). The loway are likely the descendants of the late prehistoric Oneota (Mott 1938; Henning 1970).

Portrait of loway leaders based on paintings by Charles Bird King, left to right: Rantchewaime, wife of White Cloud, White Cloud, Notchimine (No-Heart). University Villages associated with the loway have been identified across lowa and in adjacent states. The earliest known villages are found to the north where their sphere of influence encompassed the famous Pipestone Quarries in southwestern Minnesota. They hunted throughout the territory between the Missouri and the Mississippi Rivers, moving onto

the prairies on seasonal bison hunting forays.

The loway were sedentary horticulturalists, using fertile soils along river valleys for growing corn, beans, and squash. Surplus food was traded with other native groups for nonlocal goods and foodstuffs. Hunting, trapping, and fishing were also extremely important, both for subsistence and trade. Bison, elk, and deer were the primary subsistence animals.

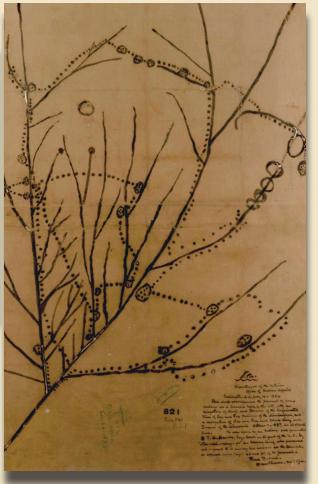
By 1685 the loway had become involved in the European fur trade (Alex 2000:218-219). As the fur trade gained importance to the loway economy, bear, beaver, otter, and muskrat were hunted or trapped with increasing frequency (Blaine 1995; Peterson and Artz 2006:27). This new focus on the lucrative trade in aquatic mammals made the lake-country near the headwaters of the Cedar, Blue Earth, and Des Moines Rivers especially valuable territory. As Europeans and their native trading partners also sought out productive hunting grounds the loway were drawn into conflicts over trade and territory. Between 1720 and 1840 they were involved

in a succession of intense and devastating intertribal wars with the Sioux and other groups (Foster 2009:7). On top of these conflicts, European diseases were taking a toll on the population. In the mid-1760s a smallpox epidemic swept through the population, killing about half of the loway. Their population weakened by war and their numbers reduced by epidemic diseases, the loway gradually withdrew from the northern portions of their territory. By the early 18th century the main loway villages were in southern lowa although small bands probably continued to hunt in the western portion of the state.

In the opening years of the 19th century a second small pox epidemic struck. This time between 25 and 50 percent of the tribe died, leaving

only about 800 survivors (Peterson and Artz 2006:27). Tradition tells that at this time the main loway village was on the lower Des Moines River. It was here that the loway settled to trade after receiving confirmation that Northwest Company fur traders would come. This village has come to be known as lowaville.

As the federal government moved to settle native people onto increasingly restricted reservations the loway, Sauk, Meskwaki, and Sioux all claimed territory in lowa. In order to defend their claim a delegation of loway leaders traveled to Washington D.C. in 1837 and presented a map to government officials which showed the locations of ancestral villages and the trails they had traveled for centuries. Known as the No-Heart Map after one of the loway leaders who presented it, this valuable historic document, now in the National Archives, represents a history of the loway from the time of their creation to 1837. It shows the loway homeland between the Mississippi and Missouri Rivers and identifies trails, villages, and other significant



places. Many of the locations indicated on the map can be correlated with known archaeological sites (Green 1995). Unfortunately for the loway, the government officials decided in favor of the claims of the more numerous Sauk and Meskwaki. The loway eventually signed a treaty that surrendered all of their land in lowa, and most of the population moved to two reservations in Kansas and Nebraska. Another loway reservation was later established in Oklahoma. Today, many loway continue to live on these two reservations (Foster 2009:7). The land around the village of lowaville was subsequently occupied by a band of Sauk (Peterson and Artz 2006:42).



IOWAVILLE (13VB124) – THE VILLAGE OF THE IOWAY

From 1765 to 1820 the loway had their main village on the lower Des Moines River. This village is recorded both in the tribe's oral history and on contemporary maps, including the No-Heart Map and maps made by Lewis and Clark and Zebulon Pike (Peterson and Artz 2006:30). The archaeological site, 13VB124, identified as the remains of this village, lies on the north bank of the river near the town of Selma. Known as lowaville, it is estimated that this historic village once housed as many as 800 people

(De Vore and Peterson 2011:1). During the years that they lived in this village the loway had trading relationships with both French and English traders and, eventually with the Americans. They struggled with conflict, disease, and the federal government, and were finally forced from their homeland.

Archaeologists have surface collected at the site and had the opportunity to study some of the abundant artifacts that are in private collections as well. These collections yielded gun parts, gun flints, brass and iron kettles, axes, and

hoes, brass, copper and silver earrings, rings, pendants and tinkling cones, lead shot, ceramics, glass, animal bones, and hundreds of trade beads. The majority of the temporally diagnostic items are from the time of the loway occupation (Schwartz and Green 2009; Alex and Peterson 2012). These objects document a time of transition for the loway. The way in which artifacts are modified, repaired, and reused indicates how the loway used and understood the objects they obtained through trade and how they interacted with other tribes and foreign traders. They reflect the rapid changes native people experienced as their numbers were drastically reduced, traditional knowledge was lost, and they adapted to new material goods and political situations.





Artifacts recovered from the lowaville Site, 13VB124. Clockwise from top: pipestone pipe, metal artifacts including tinkling cones, silver earrings, brass kettle fragments, lead shot, and gun parts; prehistoric and early historic ceramics, trade beads, gun flints.

The lowaville site has been in cultivation for more than half a century and artifacts have been collected from the plowed surface for at least as long. In 2011 a team of archaeologists undertook a geophysical survey of the site, with the assistance of geophysical specialist Steven DeVore of the National Park Service as part of the National Park Service's National Historic Landmark evaluation of archeological resources. The purpose of this research was to use remote sensing techniques, magnetometers and

ground-penetrating radar, to determine whether any undisturbed portions of the site still survive. The results indicate that the site does indeed contain intact

subsurface features such as houses and storage pits. Archaeological deposits buried below the plow zone have a high degree of integrity. It was also determined that the impact from the artifact collectors has been largely confined to the plow-zone (De Vore and Peterson 2011:14).

Around 1820, the loway were displaced from their main village at lowaville (Blaine 1979:135). They may have been displaced by other tribes

or they may have chosen to move away from the smallpox-decimated village. Unsubstantiated written history holds that a massacre took place at lowaville, with the Sauk slaughtering hundreds of loway in a surprise attack. Apart from an account left by a local trader who did not live in the area at the time of the supposed battle, no solid evidence supports this massacre story. Sauk warrior Black Hawk does not mention this attack in his autobiography; in fact, his account of Sauk and loway relations at that period reflects a tolerant, if not completely peaceful, coexistence (Blackhawk 1994 [1833] in Peterson and Artz 2006:28).



In addition to the archaeological site contents, part of what makes the lowaville location so significant is its relationship to known, named inhabitants. Treaty records and other documents provide clues about individual loway who lived at lowaville including MaxúThká (also known as Mahaska or White Cloud I) and one of his wives, Rut^ánweMi (Pigeon Getting Down or Female Flying Pigeon), and their son, MaxúThká II (White Cloud II or Frank White Cloud); other likely site inhabitants include Wích^e Máñi (the Orator) and Nahjé Nínge (No Heart) (Peterson and Artz 2006:29).

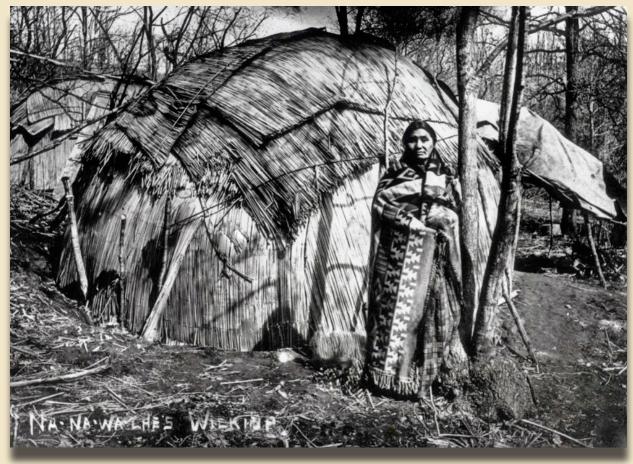
After the loway moved west, a Sauk band lived about a mile from the old loway village. After his release from captivity following the Black Hawk War, Black Hawk is also reported to have had a summer residence nearby (Peterson and Artz 2006:32, 41).

In the 1830s Euro-American settlers established a town that they called lowaville near the location of the historic Indian village. This town and nearby inhabitants included James Jordan, who maintained a trading post for the Sauk at the site, and the brothers Joel, William, and Peter Avery. William and Peter Avery were former American Fur Company traders, and William was the town's first postmaster and Justice of the Peace. The town's population never numbered more than 200, and by 1878, all that remained were a few houses, a store or two, and the cemetery (Upp 1974, 1975). Now, only the cemetery (which also contains prehistoric burial mounds) survives.

Me Skwa Ki (Meskwaki) – The Red Earth People

The Meskwaki, or "Red Earth People", were referred to by the French as "Renards" or Fox. This error apparently came about after a single group, which identified themselves as Fox clan, was mistakenly thought to represent the entire

nation. The designation is found in many historic records and on maps from the 17th and 18th centuries and became a common, if inaccurate, label for all Meskwaki. It was codified by the U.S. Government in their treaties where the Meskwaki and their close allies, the Sauk, were treated as a single entity identified as the "Sac and Fox Nation."



Meskwaki wickiup with Na-Na-Wa-Che ca. 1862, Tama, Iowa. Duren H. Ward Collection, State Historical Society of Iowa, Iowa City. Published with permission.

The Meskwaki and the Sauk are Algonkian speakers who trace their origins far to the east. Like most woodland peoples, they traditionally practiced a seasonal residence pattern moving around a large territory as resources became available. During the winter they broke into small family groups and spread out, living in numerous small hunting camps in sheltered woodland areas. At the end of the winter the men set out to hunt beaver and bear and the women, children, and elders moved to sugar camps to collect sap and process a year's supply of maple sugar. The groups reunited at larger summer villages in time to start spring planting. These villages were usually situated near rivers so that the people had access to fish, migrating water fowl, and rich agricultural soil and water for their gardens. During the summer, the women raised a variety of crops and gathered wild plants, while the men hunted and fished.

Oral tradition holds that the Meskwaki originated far to the east in present-day Quebec. Throughout the prehistoric period they gradually migrated westward through New York and Ohio and then northward into the Great Lakes region around Lakes Michigan and Superior. They were living in Michigan in 1634 when the French arrived (Buffalo 2013; Foster 2009:13–14). They remained in this region until about 1650 when the Chippewa, Ottawa, and the Neutrals attacked them at Detroit. The Meskwaki moved to the eastern shore of Lake Michigan but repeated attacks eventually drove them into Wisconsin where they established a series of villages along

the Fox and Wolf rivers (Buffalo 2013). The largest of these villages, known as "the Grand Village of the Meskwaki", was located on the south shore of Big Lake Butte des Morts. Archaeologists have identified the remains of this village as the Bell Site (47WN9).

As French fur traders moved west, the Meskwaki felt threatened because the French traders were providing arms to their enemies, the Dakota and Chippewa (Hodge 1912:473; Mason 1986:385). The French were similarly disturbed by Meskwaki refusal to settle near French outposts and missions and submit to their control of trade. The Meskwaki maintained their own trading relationships with the British and began to disrupt French trade routes, making commercial river travel hazardous for them. The French would not tolerate this competition and resolved to eliminate the Meskwaki (Peterson and Artz 2006:32; Foster 2009:13). Thus began a long series of wars referred to collectively as the French-Fox wars that began in 1712 and lasted until 1730. The French nearly succeeded in annihilating them, repeatedly laying siege to and burning the main Meskwaki village at the Bell Site. In 1730, the main group of Meskwaki fled southward taking shelter near Arrowsmith, in central Illinois. They were pursued and over 600 Meskwaki men, women, and children died in the siege of this settlement; only 50-60 people escaped (Stelle 1992; Peterson and Artz 2006:33).

The Meskwaki took refuge with the Sauk and both groups moved into the Mississippi valley in

Illinois and Iowa. This was the territory of the Ioway who initially receive them in friendship (Foster 2009:13). Meskwaki bands settled along the west side of the Mississippi in eastern Iowa with principal settlements at the lead mines near Dubuque, Prairie du Chien, and points north of Rock Island (Peterson and Artz 2006:35). Their hunting bands often ranged far to the west in search of bison and other game. Place names all over Iowa document the presence of the Meskwaki in the state. Names such as Poweshiek, Wapello, Tama, and Appanoose all recognize famous Meskwaki leaders.

Some Meskwaki lived along the lower Des Moines River valley during the 1830s and 1840s, although the area's native population of this period was overwhelmingly Sauk. In 1846 the U.S. Government dispossessed the Meskwaki and Sauk of all their lands in lowa, removing them to a reservation in Kansas. Some Meskwaki remained in lowa, camping along lowa's interior rivers. In 1857 they devised a plan to return officially to Iowa. Pooling their resources to raise money they petitioned the Iowa General Assembly and were granted permission to purchase land and live along the Iowa River. Today many Meskwaki continue to live at the Settlement on their own land in Tama County (Buffalo 2013; Foster 2009:14).

Osakiwuk - The Sauk

The Sauk, refer to themselves as the *Osakiwuk* or "People of the Outlet." They trace their migrations from as far east as the St. Lawrence River. After centuries of migration they were residing near Saginaw Bay in Michigan when

the French arrived in 1634. Historic records show that they were participants in the burgeoning European fur trade which came to be

Keokuk and son, colored lithograph by Charles Bird King.

dominated by the French in this region. Around 1650, the French allied with the Chippewa, Ottawa, and Neutrals and the combined forces set out to destroy competing groups.

The Sauk and their Meskwaki allies were forced westward and took up residence in Wisconsin where the Sauk eventually settled near Green Bay (Buffalo 2013). Their villages were repeatedly attacked. After the French laid waste to the Meskwaki villages between 1712 and 1730, the Sauk took in Meskwaki refugees and the two groups moved into Iowa and Illinois. Although they often lived together, the two groups maintained separate identities and traditions.

During the 18th century, the Sauk established their primary territory south of the Meskwaki on the east side of the Mississippi in Illinois. They had villages at Rock Island and near the Des Moines Rapids on the Mississippi. Their main village, Saukenauk, was at the mouth of the Rock River and the tribal burial ground was on Rock Island (Peterson and Artz 2006:33, 35). It was reported that, during the summer over 3,000 Sauk lived at this village. The Sauk occupied Saukenauk village until 1831, when American settlers seized the land and the Illinois militia burned the village.

In 1833 the American government opened the territory west of the Mississippi River to settlement. After this time the Sauk, Meskwaki, Ioway, and other nations were subjected to numerous treaties and were shuffled about Iowa as federal "Indian Policy" evolved. Although many groups

tried to cooperate and negotiate, tensions between the government, settlers, and native people were never far beneath the surface and sometimes broke out into open hostility.

In 1836 a treaty was signed which moved the Sauk and Meskwaki further west, with many bands establishing villages along the Lower Des Moines River. The Indian Agent in charge, General Joseph M. Street, chose the location for the new agency in what is now Wapello County. The location is still now the town of Agency (Peterson and Artz 2006:37).

In 1842 the Sauk and Meskwaki signed a new treaty ceding their land in Iowa, Illinois, and Missouri. The final exodus came in 1845 as they were moved to a reservation on the Marias des Cygnes River in Kansas. In 1869 some bands moved again to a reservation in Oklahoma. Today they live in two groups, one in Kansas and the other in Oklahoma (Bufflao 2013; Foster 2009:23).

BLACK HAWK AND KEOKUK – HOW TO DEAL WITH THE U.S. GOVERNMENT

According to Sauk traditions, Kiyo'kaga or Keokuk was not a hereditary chief. He did, however, possess great intelligence, oratorical skill, and ambition. He advocated for cooperation with the U.S. Government and through his powers of persuasion, convinced many Sauk to cooperate with the government. Because of his policy of compliance and cooperation he was a favorite with government officials, was

"appointed" to the role chief, and given the power to negotiate and sign treaties. This went against the traditional political structure of the Sauk and many met it with derision. Others, seeking a new way in an unfamiliar and perplexing new order, chose to follow him.

Ma-Ka-Tai-Me-She-Kia-Kiak, Black Hawk, was a traditional Sauk war leader, a role different from that of a civic leader. As a young man, he earned this

status leading war parties and fighting on the side of the British during the War of 1812. During this war he led attacks against American interests at Fort Madison, Prairie du Chien, and elsewhere. His cause was lost with the defeat of the British at the end of the war. Black Hawk did not advocate cooperation with U.S. Government policies. In 1804 when the U.S. Government tricked the Sauk and Meskwaki into jointly signing a treaty that ceded all of their territory east of the Mississippi River Black Hawk objected (Peterson and Artz 2006:34). He refused to recognize the validity of the treaty, claiming that those who signed it had no authority to do so. The Sauk divided over

the issue.

Black Hawk, color portrait by Charles Bird King.

Black Hawk and his followers staunchly maintained their residency at Saukenauk.

In 1831, following their traditional practice, the Sauk left Saukenauk for their winter hunt. While they were gone American settlers moved onto the village lands. When Black Hawk and his people returned in the spring, the Illinois militia was called in to drive them away. Numerous battles followed, fought in Illinois and Wisconsin. These became known as the Black Hawk War (Green 1983:132; Peterson and Artz 2006:36). Black Hawk was eventually defeated in 1832 during the Battle of Bad Axe in Wisconsin.

Black Hawk was captured and held as a prisoner by the U.S. Government. He and a number of other captive leaders were taken to a prison in Virginia. From there they were taken to Washington D.C. and eventually to the prison at Fort Monroe. In 1833 they were returned west via a circuitous route through a number of large cities on what was referred to as an "escort tour." They met President Andrew Jackson, their portraits were painted, and they were given numerous gifts. The purpose of this tour was to convince them of the power of the American government and the inevitability of the American takeover of the west. During this time Black Hawk told his story to Antoine LeClaire, a government interpreter who was of French-Canadian and Potawattamie heritage. The story was published in 1833, one of the first accounts of a Native American leader's life (Black Hawk 1994 [1833]).

Black Hawk was freed in 1833 and allowed to return to lowa with his family. He apparently established a winter lodging along Devil's Creek in Lee County and had a summer wickiup near James Jordan's trading post in the vicinity of lowaville (Peterson and Artz 2006:40–41). It is known that Black Hawk was living near Jordan when he died in the autumn of 1837. He was buried near his wickiup, but the grave was soon robbed of both body and artifacts. In 1843 Jordan pointed out the spot to the surveyor William Barrows who noted its location, but all traces of it now appear to be gone (Upp 1974:2).

NEW PEOPLE IN AN OLD LAND – THE COMING OF THE EUROPEANS

EXPLORERS, TRADERS, AND SOLDIERS

In 1673 Marquette and Joliet became the first Europeans known to have visited lowa. Others arrived soon after. The first regular visitors were primarily itinerate trappers and traders seeking to cash in on the booming fur trade. In the 17th century the lowa fur trade was under nominal control of the French who traded with a number of Native American allies in a network that encompassed Canada and the Great Lakes region (Whittaker 2009:4). They did, however, have competition. It is known that British fur traders were operating along the Des Moines as early as 1799 when Jean Baptist Faribault established a trading post for the Northwest Company at a location on the Des Moines River, upstream from present day city of Des Moines. By 1801 the Mackinac Company was also represented with a post near the river's mouth. While trade items like glass beads, brass kettle fragments, and iconographic rings, have been found in many Native American village sites, these early trading fort sites have never been documented in the archaeological record (Whittaker 2009:5; Peterson 2009:14).

The French controlled trade in this region from 1680 to 1762. In an effort to keep the lucrative business away from the British they ceded the land to Spain in 1762. The Spanish tenure, however, was brief. Napoleon Bonaparte gained control over the Spanish interests in North America in 1801 and negotiated the Louisiana Purchase with the United States in 1803. The Louisiana Purchase technically brought the land

into U.S. control, however, the British also maintained a strong influence in the region until their defeat in the War of 1812 (Peterson 2009:13).

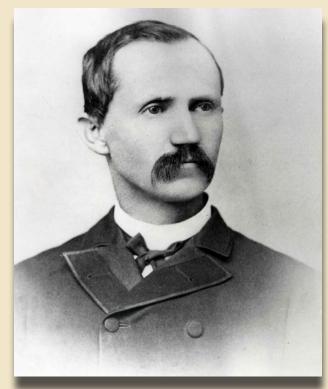
With the addition of the lands of the Louisiana Purchase, American expansion west of the Mississippi began in earnest. Lewis and Clark undertook their adventure up the Missouri River to the Pacific and Zebulon Pike was dispatched to explore the shores of the Mississippi River. Pike's cartographer Anthony Nau created a map in 1811 that shows Des Moines River valley, the locations of the loway village at lowaville, and six trading post forts.

EURO-AMERICAN SETTLEMENT

The earliest known, non-native people living in what is now Van Buren County were "some Frenchmen" who may have been monks or missionaries, and who apparently lived along the river in the vicinity of what is now Keosauqua (Anderson 2004:14). Although there were other settlers, explorers, and traders in the area earlier, Euro-American settlement officially began in 1833. The Sauk and Meskwaki were forced to surrender their land in eastern Iowa after the Black Hawk War of 1832 and the region was open to settlers. Within 20 years lowa was transformed into a state almost completely settled by Euro-Americans (Whittaker 2009:1). By the late 1830s thriving communities had been established at many locations along the Des Moines River including Farmington (1833), Bentonsport (1836), Bonaparte (1837), and Keosauqua (1839). Trading posts were established

near the Sauk and Meskwaki settlements in the vicinity of what is now Wapello and near the loway village at lowaville.

Before becoming a state, Iowa was part of the Territory of Wisconsin. Van Buren County was created by first legislature of the Territory in 1836. It was named for Martin Van Buren who was then Vice President of the United States (1833–1837) and would later become President (Anderson 2004:13). In 1839 the Territorial legislature passed an act establishing Keosauqua as the county seat, requiring the town to



Voltaire P. Twombly. Courtesy of the State Historical Society of Iowa, Iowa City. Published with permission.



Van Buren County Courthouse, Keokuk, Iowa.

provide \$5000 worth of land or materials for construction of the county courthouse. The courthouse was completed in 1843, and was considered to be one of the largest and most beautiful in the state. It is the oldest county courthouse still in use in lowa and the second oldest in the country (Anderson 2004:16). The courthouse is listed on the National Register of Historic Places (NRHP).

That same 1839 legislature established "The Des Moines Mill Company," near Keosauqua, and "Plymouth Mill and Manufacturing Company," near

Farmington. These companies were authorized to construct dams across the river for power, but it was stipulated that they also build locks to allow for the passage of "steam, keel, flat-boats, rafts, and other water-crafts." Dams were also authorized at Bonaparte and Bentonsport with the same stipulations. This was just the beginning of what proved to be frequent state and federal legislation concerning the Des Moines River (Annals of lowa 1884:47, 48).

The 1839 legislature also established twelve "seminaries of learning" for the "instruction of young persons of both sexes in science and literature." Three of these, the Farmington Academy, the Bentonsport Academy, and the Keosauqua Academy were in Van Buren County (Annals of Iowa 1884:48).

THE DES MOINES RIVER – AN ARTERY FOR IOWA INDUSTRY AND DEVELOPMENT

From the very beginning the new United States of American was strongly influenced by the philosophy of the Enlightenment and the power of the Industrial Revolution. This philosophy maintained that "guided by divine providence and the Law of Nature and enabled by a positive government, society can convert nature to property, improving the land for the benefit of society and the production of wealth" (Woten 2009:23). As the nation grew with the addition of the lands of the Louisiana Purchase enthusiasm for developing its seemingly unbounded natural resources continued to grow.

Before the coming of the railroad in 1855 there were two ways to travel in lowa other than on foot. One could travel on horseback or by horsedrawn vehicle, or one could travel by boat. The first method was difficult and slow. Early roads, where they existed, were nearly impassable because of mud when wet, or broken and rutted when dry. Rest stops were few and far between. The second method was easier and faster, but had its own difficulties. Canoes had limited capacity for carrying goods. Keel boats could handle the sometimes shallow waters of the rivers, however, they had to be pushed upstream against a strong current using "setting poles"

a slow, laborious process. Steamboats were limited to navigable waterways and, even then, only when water levels were neither too high nor too low. Nevertheless, between the late-1830s and the early-1850s the steamboat was the best means of transportation to and from the new territory (Conrad and Cunning 1990:5). Rivers, including the Des Moines, were looked at to become the main arteries for commerce and development.

The use of steamboats became the great absorbing idea. Within a year of becoming a state, the Geological Survey was sent to explore the resources of the Des Moines River. In 1847 they returned a report that was enthusiastic, "coal

was found for two hundred miles on the Des Moines, and, from indications, heavy deposits of iron ore are believed to exist." They also indicated that "gypsum in abundance, forming cliffs for miles, were encountered" and "limestone suitable for lime, clay suitable for brick, rock suitable for polishing, for grindstones, whetstones, and for building purposes, some of superior quality, are found in abundance along the Des Moines." The report concluded that "no country can afford like accommodations to manufactures" and "no country can produce more agricultural wealth than that within sixty miles on either side of this river" (Annals of lowa 1873:482). The new state of lowa had the resources necessary

for fueling settlement, building industry and agriculture, and developing towns and cities.

The Des Moines River was essential for trade and transportation. Steamboats and flatboats carried settlers into the state, brought them supplies, and transported their produce and products to market. Coal, gypsum, limestone, and clay were mined along its banks. The production of ceramics and grain milling grew into major industries. As many as 108 potteries may have flourished along the Des Moines from 1840 through the end of the century. Eighty mills for grinding grain were built along its banks making lowa a leading wheat-producing state in the first half of the 19th century (Schmidt 1920:401).



Des Moines River near Farmington, Iowa.

NAVIGATION ALONG THE DES MOINES RIVER

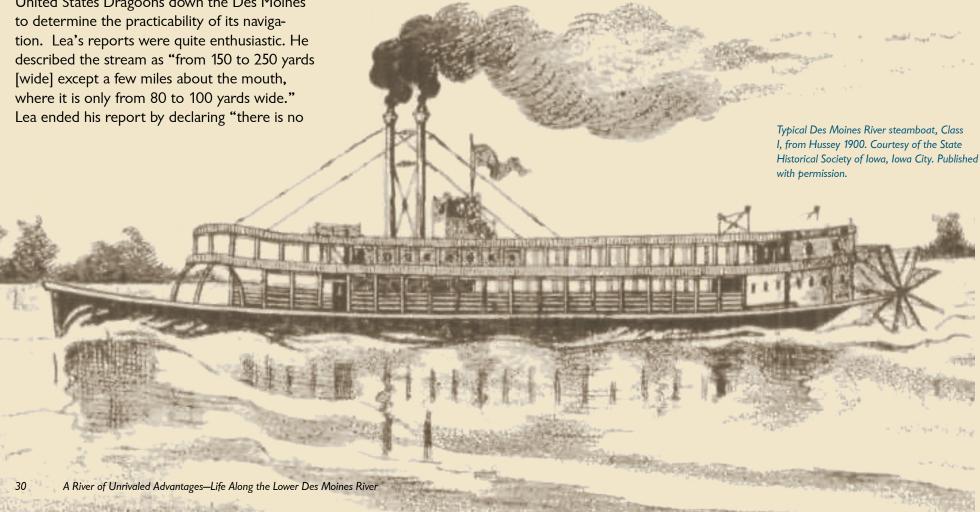
The Des Moines River was looked to as a "gateway to the West" that would create a transportation link from the Mississippi River to the fertile "interior regions" between the Mississippi and the Missouri. It was the first river in Iowa to be navigated by steamboats and was navigated to a greater extent than any other river in the state (Hubler 1968:287).

As early as the summer of 1835, Lt. Col. Stephen Kearney dispatched Lt. Albert M. Lea of the First United States Dragoons down the Des Moines

obstruction to the navigation of the Des Moines in a tolerable stage of water" (Hubler 1968:289).

Until 1837 keel boats and canoes provided transportation on the river. These boats allowed traders to bring their goods to Native American villages and supplies to early settlers. Then, in 1837, the steamboat S.B. Science commanded by S.B. Clark brought a load of goods up the Des Moines as far as Keosauqua. That same year the

steamboats Hero and Pavillion traveled all the way to Fort Des Moines carrying goods for the American Fur Company (Hubler 1968:290; Iowa Pathways). On August 9, 1843, the lone landed troops and supplies at Raccoon Forks, now the city of Des Moines. The lone was the first steamboat to ascend so far above the mouth of the river, and was "hailed with rejoicing by the settlers whom it passed" (Iowa History Project).



IMPROVEMENTS TO NAVIGATION

The success of the *lone* came to the attention of Congress. On November 8, 1846 they passed the Des Moines River Lands Grant which deeded large blocks of public land along the river to the soon-to-be State of Iowa. The Grant allowed the federal government to provide Iowa Territory with public land "for the purpose of aiding said territory to improve the navigation of the Des Moines River from its mouth to the Raccoon Fork [at present day Des Moines]." The state was to find a company to take control of 271,000 acres of land along the river in return for the company building a series of 28 dams and 9 locks to ensure that the 204 mile stretch of the river would be navigable. An engineering survey determined the precise placement of each dam to ensure the proper pool depth upriver at the location of the next dam. The plan also called for the construction of three canal sections with the hope of shortening the route.

Despite the initial optimism, the project only completed the first seven sets of dams and locks reaching upriver from the Mississippi as far as Keosauqua. Dams eight and nine remained incomplete and construction on the remaining locks and dams never began. The project was hindered by confusion and burdened by poor management, corruption, and malfeasance. Work began in 1849 on several of the locks and on a ten-mile canal at the mouth of the river, each under a separate contract. In 1851 the state legislature decided that the work could best be carried on by a single contractor. They selected

Bangs Brothers of New York who were to complete the project in four years. The company quickly became mired in controversy. Accusations were made that the company's owners were skimming funds for their personal use. A long and expensive inquiry produced few results, and the contract was eventually terminated along with the entire river improvement project (Muessig 1977:3). The land grant was obtained by the Keokuk and Des Moines River Railroad Company, and in 1869 they used the land to begin construction of a railroad along the banks of the river (Anderson 2004:16).

A TROUBLESOME RIVER – STRUGGLES WITH NAVIGATION

Despite the efforts at improvement, steamboat navigation of the Des Moines proved a problem. The travel season was dependent on the inconstant weather and its length was variable and unpredictable. It usually began in April after the ice had gone out of the river and ended whenever the water became too low, sometimes as early as July. In good years it could extend into September or even, October (Hussey 1900:361,363). Whenever navigable water prevailed, the villages along the lower Des Moines became centers of great activity with frequent arrivals and departures of steamboats. When the river levels were low, however, the boats ran into difficulties. Often steamboats ran aground and a keel boats had to be called into service to help free them. At other times, goods had to be unloaded and transported overland or put into storage until the river became passable again

(Hussey 1900:333,341; Annals of Iowa 4(5):393–394). Sometimes men had to be hired to "warp" the steamboat upstream by pulling on ropes stretched from the capstans to trees, stumps, and snags both in and out of the river (Hussey 1900:359). In the low precipitation year of 1854, the captain of the *Julia Dean* ordered his tallest deckhand overboard in areas of low water. The man would wade in front of the boat seeking out the deepest water and the pilot would "steer for him." The season is said to have closed in July of this year (Hussey 1900:260).

Too much water also caused problems. When the river was flooding out of its banks, pilots could lose track of the channel and get lost, running aground on hidden snags and getting caught between trees. Even the locks and dams became hazards (Hussey 1900:340-342). Hussey (1900:340) recalls an account from the flood year of 1851 when a stern wheeler attempted to climb over the dam at Bonaparte. The stern came out of the water as the boat climbed and the paddle wheel was unable to gain purchase. After several failed attempts to get over the dam the cargo was unloaded and stored at Bonaparte while the captain returned to St. Louis to find another boat so he could try again weeks later. In another case, it was reported that a steamboat captain "ripped the gates off of the lock at Farmington to 'open the way for free navigation" (Hussey 1900:340).

Steamboat travelers also incurred a certain amount of risk. The boats were alarmingly prone to accidents caused by boiler explosions,

MISHAPS ON THE RIVER

Steamboat Commerce was a high risk adventure. Those that successfully delivered their passengers and cargos often made handsome profits (annals of lowa 1900:327-328). Getting much needed supplies through to people cut off

by high water in a flood year could also get a captain hailed as a hero. There are, however, a number of accounts of some shipments that went astray.

One such story from the flood year of 1851 tells about a load of wooden shoes headed for Pella. When the river became impassable because of flooding, the shoes had to be unloaded and stored in an unused blacksmith shop along the river. Unfortunately, the river continued to rise, overflowed its banks and 1,000 wooden shoes "sailed off to the Father of Waters". (Annals of lowa 1900:348)

Typical Des Moines River steamboat, Class I, from Hussey 1900. Courtesy of the State Historical Society of Iowa, Iowa City. Published with permission.

In another case a flood brought about a career change for some young men. In the year 1850 the corn crop was very large. Some of the merchants conceived a plan to purchase the corn and take it to St. Louis in flatboats to sell. They had flatboats built and contracted with the farmers to sell, sack and deliver their corn to the banks of the river. The inexperienced captain hit a snag and they "suffered a ship wreck" at a



Typical river flatboat, artist Ray Brown.

bend in the river. They removed as much corn as they could, emptied the sacks, spread it out and "kept shoveling it until it was dry and commenced to raise hogs." (Annals of lowa 1900:348-349).

river snags, and other hazards. The death toll for steamboats was nearly a dozen individuals per accident. Those traveling on the open deck were also often exposed to dangerously unsanitary conditions (Conrad and Cunning 1990:6). Hussey's collection of reminiscences includes a number of stories of steamboats that "suffered shipwrecks" during both high and low water times; however, in these cases the boats and, usually, the cargo, were quickly salvaged leaving no evidence behind (Hussey 1900:349).

Ironically, the steamboats themselves contributed to the downfall of riverboat commerce on the Des Moines. The steamboats burned large quantities of timber to produce steam. They purchased wood from woodlots owned by business men along the river or stopped along their route to cut down trees themselves (Annals of Iowa 1900:339,334-335, 352-353). This, combined with the use of wood by the mills and other industries, resulted in the clearing of much of the timber from the river banks. Without trees to stabilize them when floods struck, the banks eroded and collapsed. At the same time farmers were clearing land and draining wetlands for agricultural fields. This dramatically increased erosion and runoff into the river causing banks to widen and silt and sand to fill the river bed. Even just 50 years later in 1900, Tacticus Hussey would remark in his History of Steamboating on the Des Moines River, from 1837 to 1862:

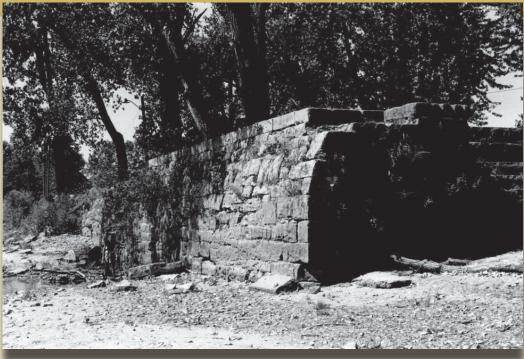
Indeed, it is difficult to realize as one now looks upon our shrunken river, spanned by many steel bridges, the little current creeping through and

around the sand-bars which usurp its old channels, that it ever floated such a craft as a Mississippi steamboat. [Annals of Iowa 1900:393]

The Civil War marked the beginning of the end for steamboating on the Des Moines River. Up to the beginning of the war 30 steamboats traveled the river as far as Des Moines and those that accomplished it made significant profits (Iowa Pathways). When the war began, boats that could carry freight and passengers were in high demand elsewhere for the lucrative work of transporting troops and goods for the war effort. By 1862 steamboat traffic on Des Moines River had virtually ceased (Hussey 1900:376–380). At the end of the war railroad networks were spreading across the country. The railroad proved to be a faster and more reliable means of transportation. Trains could reach beyond the limits of the river and could operate year round unaffected by the vagaries of rainfall.

The only remains of the Des Moines River Improvement Project with good structural integrity are the surviving remnants of the Locks at Bonaparte, Lock #5, and at Keosauqua, Lock #7. Little but rubble remains of the two completed dams or the lock at Bentonsport. A dam was begun at lowaville, but floods washed it out before it could be completed and the effort was never renewed (Muessig 1977:5). After the project was terminated, most of the limestone that had been used for construction was hauled away by local residents to be used in other projects (Muessig 1977:2).

The surviving locks at Bonaparte and Keosauqua were nominated together to the NRHP in 1977 (Muessig 1977). The lock at Bonaparte can be seen in a city park on the southwest corner of town. It was built by local contractors Meeks and Sons between 1849 and 1852. The lock is made of large blocks of locally quarried limestone set on a limestone bedrock foundation. Ninety feet of the outside wall and 120 feet of the inside wall are still extant. Both walls are $3\frac{1}{2}$ to $5\frac{1}{2}$ feet thick. The lock gates were originally in two pieces, upper and lower, which opened upstream and relied upon water pressure to keep them watertight when closed. Recesses for the lower gates are still visible, as are a number of iron rings once used



Surviving remnant of Lock and Dam #5 at Bonaparte, from Muessig 1977.

to tie boats. Apparently in a long-ago effort to stabilize the structure, stone from the walls was removed to build a third wall across the lower end of the lock. The lock is now silted in, and has a number of large trees growing within it (Muessig 1977:2).

The Keosauqua lock was begun about 1851 and completed in 1856, after some major difficulties. The contractor was Bonney and Whittelsey of Keosauqua (Muessig 1977:3). All that currently remains is one wall that was along the landward side. It is complete from the lower end to the recess that held the upper gate. The remnant is 160 feet long, and 5 feet wide at the top, made of large blocks of locally-obtained limestone set on pilings. Many bolts and brackets, which held wood-slab "bumpers" are still visible. In its original form, this lock chamber was 110 feet long, 44 feet wide, and 8 to 12 feet deep. A dam was originally built in conjunction with the lock. Unfortunately, an ice jam in 1857 destroyed it. It was rebuilt in 1872 only to be destroyed again by the flood of 1903 and never rebuilt (Anderson

2004:16). Today the remnants of the lock are about 30 feet from the river bank surrounded by trees and a corn field (Muessig 1977:2).

THE POTTERY INDUSTRY ALONG THE RIVER

Stoneware and other pottery products were essential materials for developing farming and industry in the growing country. In a time without refrigeration or the mass production and distribution of food, most food was produced locally and pickling, salting and canning were primary methods of preservation. Utilitarian red-wares and salt-glazed stonewares were required for everyday food production and storage in every home and farm. Items like butter pots, pickle jars, churns, milk pans and jugs, tableware, and other items were used on a daily basis. Ceramics were required for construction too. Drainage tiles were needed both farms and towns, and growing population centers relied on materials such as paving bricks, construction bricks, sewer tiles, tubing, and chimney stacks (Rogers, Gradwohl and Peterson 1995:10). Archaeologists report that stoneware is one of the most common artifact types recovered from historic habitation sites in Iowa. Recent studies of these artifacts indicate that the majority of the early wares were produced in local and regional kilns attesting to the importance of these manufacturers (Rogers, Peterson, Schroder and Finney 1995:2).

Potteries also provided jobs for skilled immigrants coming to Iowa from other states and European countries like England and Germany. These workers brought with them knowledge of the ceramic industry from well-known centers like Staffordshire, England and Peoria, Illinois (Rogers, Gradwohl and Peterson 1995:13).

Encouraged by the waterway transportation system and the availability of nearby natural clay sources, the pottery industry took hold in Iowa in the early 19th century. The very first pottery kiln in Iowa was a rural kiln built in 1836 by William Welch just downriver from the future town of Bonaparte in Van Buren County (Rogers 1999:8). Early potteries such as this were make-shift kilns operated by part-time and itinerant workers, but what

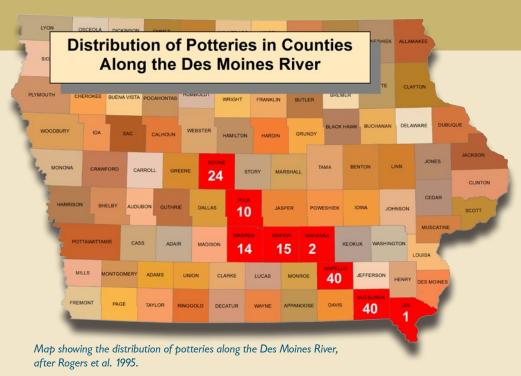
began essentially as a handcraft trade evolved into a mechanized, technologically complex industry (Gradwohl 1976).

Potteries naturally tended to be found near clay sources such as those around Vernon and Bonaparte in Van Buren County. The clay used for pottery is called "fire clay" and usually can be found as the underclay of coal seams; as a result, it was often extracted along with the coal. Other sources of clay were also available (Schroeder 1979:18), but most of the potteries along the Des Moines River were associated with coal mines (Rogers, Gradwohl and Peterson 1995:13).

The industry expanded in Iowa through much of the 19th century, reaching its peak in the 1880s (Till 1983:101). Major centers of production included Fort Dodge (the largest), Sioux City, Davenport, and Des Moines. A list

Known Potteries Along the Des Moines River and Associated Archaeological Sites

County	Number of Potteries	Associated Archaeological Sites
Boone	24	13BN111 Nosh Creek Kiln 13BN120 Mangona Pottery Works 13BN132 Flintstone Pottery 13BN138 Griffee Pottery 13BN131 Franklin Kiln
Lee	1	0
Mahaska	2	0
Marion	15	13MA106 Gidel Kiln 13MA103 Coalport Kiln 13MA113 Pella-Welch Kiln
Polk	10	0
Van Buren	40	13VB200 Bonaparte Pottery 13VB427 Dickinson Pottery 13VB433 Rambo Pottery 13VB147 Green Pottery
Wapello	16	13WP107 Dahlonega Pottery
Warren	14	13WA127 Waster Dump
Webster	6	13WB150



of 251 named potteries in 34 counties was compiled by Rogers and Gradwohl (Rogers, Gradwohl and Peterson 1995:14, see table). This list may be somewhat inflated because some potteries were sometimes renamed when they changed hands. The largest pottery in the state was White's Pottery (a.k.a. Fort Dodge Stoneware Company) in Fort Dodge which operated from around 1879 until 1906 (Rogers 1999:8).

The greatest concentration of potteries was along the Des Moines River valley, where coal deposits were abundant and had been worked from an early date. A total of 128 potteries are known from the nine primary counties through which the Des Moines River flows. Fourteen of these have been recorded as archaeological sites. Forty potteries were located in Van Buren County. Four of these, including the Bonaparte Pottery, are documented archaeological sites.

The pottery industry declined rapidly early in the 20th century. As coal mining became less profitable in lowa, clay supplies dwindled, and it became increasingly expensive to obtain the raw materials needed. At the

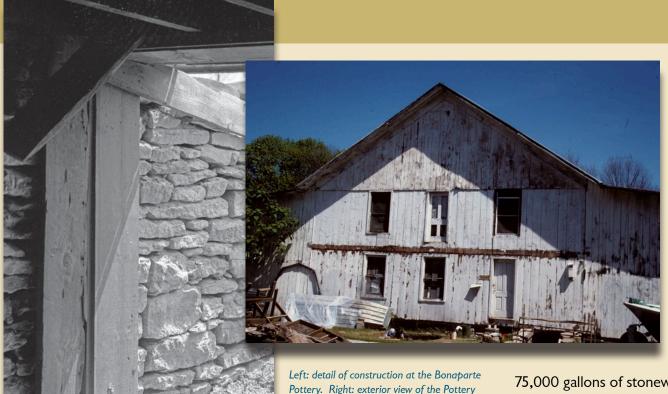
same time glass bottles and canning jars were becoming cheaper and more readily available. These were very popular with homemakers because it was easy to tell if they were clean, and the clear glass allowed them to see the contents of the jars. Refrigeration was also becoming more widely used. In homes it replaced salt preservation and, when it was introduced into railroad cars, food distribution was revolutionized. The demand for stoneware dwindled to almost nothing. The sprawling railroad networks also changed transportation and settlement patterns and relocated centers of commerce. By 1943 there were only 28 potteries operating in lowa, many only part time. These produced primarily flower pots and art pottery.

The Bonaparte Pottery – 13VB200

The Bonaparte Pottery is identified as an archaeological and architectural property designated 13VB200. After careful examination by archaeologists and architects, it was nominated to the NRHP in 1999 as a significant



Detail of "fachwerk" construction at the Bonaparte Pottery, 13VB200.



Building at the Bonaparte Pottery.

example of the pottery industry in Iowa (Rogers 1999). The buildings and archaeological features at the site provide important information about the history of this industry in the state.

The pottery at Bonaparte was originally founded as the "Parker and Hanback Pottery" in 1866 by Thomas A. Hanback and Sidney Parker. It grew quickly and within four years it was reported that this pottery employed four men and operated all year round. A new partner, Robert Wilson, joined the operation in 1871. Wilson was born in Staffordshire, England, and emigrated to the United States in 1855. By the time he joined the company at Bonaparte he had many years of experience from major pottery manufacturing centers in England and Illinois. After 1873, the pottery was known as the "Hanback and Wilson" or the "Bonaparte Pottery". Thomas Hanback was the senior partner and traveling salesman (Bonaparte

Journal 1887). By 1875 the pottery was producing brown glazed stoneware, terra cotta drain tile, and fire-proof brick (Andreas 1875). The shop was the largest in Van Buren County and furnished employment to about a dozen workmen (Daily Gate City 1875; Rogers 1999:8).

There was a fire in the main pottery building on November 17, 1875 but the business apparently did not suffer appreciably. Reconstruction began immediately, with 12 men at work on the new building, which was said to be twice as large as the old one (*Birmingham Enterprise* 1875). By March 8, 1876, "the new pottery [was] now in full blast, turning out a great many gallons of the best ware in the state" (*Daily Gate City* 1876). By 1878 the company employed ten men, was producing

75,000 gallons of stoneware per year, and had added a tile factory that could produce 6,000 feet of tile per day. The 1880 Gazetteer indicated that the pottery produced both tile and sewer pipe (Polk and Danser 1880; Rogers 1999:8).

The business continued to flourish. By 1887 the Hanback and Wilson Pottery was advertised as keeping on hand "a full line of the best Glazed Ware in the State. They also manufacture and deal in Flower Pots, Drain



Jug and facetted canning jar manufactured at the Bonaparte Pottery.

Pipe, Fire-Proof Brick, Fruit Cans, With Metal Covers, etc....8, 10, 12, and 15 Gallon Jars made to order" (Bonaparte Journal 1887:30; Rogers 1999:9). The "fruit cans" noted in this advertisement were likely the twelve-sided preserves jars that the Bonaparte Pottery was producing during Wilson's tenure. The form of this twelve-sided jar is very similar to a type associated with the Peoria Pottery, and its production at the Bonaparte Pottery

reflects Wilson's prior experience in Peoria. These were apparently a popular product. An 1889 article in the *Bonaparte Journal* commented on the "growing demand for their stone fruit jars" (Rogers 1999:8).

In 1889 it was reported that the pottery had increased production by another 20 percent; however, economic conditions in the country were

changing rapidly. The financial panic of 1893 made it increasingly difficult to obtain credit.

The transcontinental railroad, completed in 1869, was changing transportation routes and with them, the routes for the distribution of goods and population centers. These factors, coupled with the introduction of mechanized production techniques created a severe decline in manufacturing in Bonaparte and towns like it in the 1890s. The pottery was unable to compete with mechanized, mass-producers such as Red Wing in Minnesota and the Western Stoneware Company in Illinois, and because it was located a greater

Right: hole worn in the floor by a worker at a wheel or lathe at Bonaparte Pottery.



Left: clay handprint made by a worker at the Bonaparte Pottery.

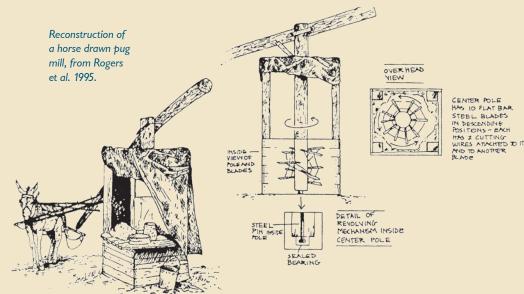
distance from population centers, the cost of production and distribution became prohibi-

tive. Operations at Bonaparte ceased ca. 1895 (Rogers 1999:9).

The significant architectural and archaeological features identified at the Bonaparte Pottery site include the 1876 pottery factory building, which still stands, the archaeological remains of two types of kilns, a huge waster midden, and a waster pit where broken pottery and other debris were discarded.

The construction style of the factory building follows a European Medieval tradition of building that was brought to this country by German immigrants (Harris ed. 1977:275; Howe et al. 1987:109). This construction technique, referred to as "fachwerk", is characterized by heavy timber framing with brick masonry infill, called "noggin." In the Bonaparte factory the noggin extends all the way from the first floor to the attic (Rogers 1999:2).

Much of the interior of the building has been left virtually unchanged for more than a century and evidence of the pottery operations is still visible. The basement and second floor still show clear markings from the



manufacturing activities that took place. All three levels of the factory were in use. The basement was the place where clay was stored and prepared. Being semi-subterranean it provided some humidity control to keep the clay from drying out and would have allowed the factory to operate during all seasons (Prairie Archi-

tects 1995:43). Patterns of clay spatters on the walls and ceiling, the locations where leather straps were attached to floor joists, a metal rod driven in-between the stones of the foundation, and a plank nailed to the joists are associated with a horse-powered clay pug mill that was once used to process clay (Rogers et al. 1995).

A pug mill is a cylindrical machine with rotating blades inside. The blades kneaded the wet clay and mixed in tempering material. Archaeological excavations revealed that the working-floor of the basement, dating to around 1895, was still intact, preserved under layers of sediment deposited by periodic flooding.

The remains of a clay pit and traces of the path made by horses or ponies which powered the pug mill were identified. The clay pit was a wood lined square in which processed clay was stored prior to being moved upstairs. At the time of excavation, the pit was filled with pink clay, possibly for making terra-cotta flower pots and drain tiles, and gray clay for stoneware production. This clay represents the unused material that was abandoned when the factory closed.

The first floor was used for molding pottery and, possibly, wheel throwing, slip casting, and/or the application or mixing of slip glaze. On the



Upper right: archaeologists excavating the linear kiln at the Bonaparte Pottery, 13VB200.

Left: circular kiln exposed after excavation at the Bonaparte Pottery, 13VB200.

second floor the molded wares were finished on lathes, slip glazes were applied, and, possibly, some products were thrown on potter's wheels (Rogers 1999:3). The first floor has been painted over but on the second floor there are clay spatters, hand

prints where the pottery workers wiped their hands on ceiling beams, and graffiti on the interior door which looked out over the circular kiln area to the east (Rogers 1999:3). A hole in the floor in the northeast corner was worn by a potter's heels as he sat working at a wheel or lathe (Prairie Architects 1995:43).

Archaeologists were also able to excavate the remains of two kilns used by the operation. The older of the two kilns is located on the south side of the pottery factory building. This is a linear kiln at least 21 feet long and 5 to 6 feet wide. This kiln was probably associated with the 1866–1875

operations of the pottery. This kiln has parallel walls made from common red brick. They were designed to channel the flow of hot air through the structure and to prevent cross drafts that might damage the wares during firing (Smith and Watrin 1986:140; Sweezy 1984:64).

The second kiln is a circular design. This kiln is shown on the 1893 fire insurance map which indicates that it was 30 feet high. Archaeological excavation revealed its base was 17.44 feet in diameter (Rogers 1999:4). This kiln design was known as an updraft kiln, and the 30-foot height suggests that it may have had two levels. The location of the fireboxes could be identified by the deep red burned earth, charcoal, and ashes that were exposed by the in the archaeological excavations (Rogers 1999:4).

Archaeologists also identified a huge waster midden along the riverbank that measured 140 feet in length, 40 feet in width, and was over 6 feet deep in places. It contains a dense deposit of stoneware sherds, some whole vessels, kiln furniture and fabric, and brick. In general, it was found that the stoneware discarded in the upper midden area dates from the later years of operation. It primarily contains wares of the "middle range" of production, such as milk pans and bowls.

The waster pit is a round-bottomed pit containing a dense deposit of stoneware sherds (primarily wheel-thrown), kiln furniture, and kiln fabric. Maker's marks on sherds in this pit are from the Parker and Hanback operation of the pottery

indicating that it is associated with the early years of operation, around 1866 to 1871. After the company changed partnerships, the Parker and Hanback stamp would probably not have been used (Rogers 1999:5).

The Bonaparte Pottery is significant for its association with the late nineteenth century pottery industry of lowa. It was part of an important local industry that often went hand-in-hand with lowa's coal mining industry and generally followed the frontier westward through lowa. The archeological and architectural components at the Bonaparte Pottery are very well preserved and provide important information about this site. They also help to fill in information gaps about pottery production, features types, and site utilization that are not well documented at other sites. The linear kiln, in particular, is an unusual type of kiln to survive in such good condition. It provides data about this type of kiln and its actual use that might not otherwise be available (Rogers 1999:7).

FLOUR MILLING 1840-1940

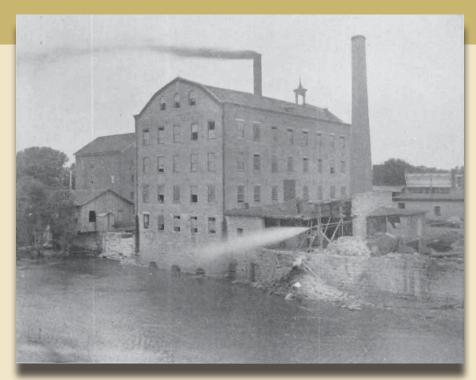
The rush of settlers into lowa brought wheat farming into the Mississippi Valley. By 1859, lowa had become the seventh leading wheat producing state (Schmidt 1920:401). Like the pottery industry, flour milling was seen by the founders of new towns and villages as a key ingredient for the growth and development of their communities. Establishing a gristmill held more than ordinary importance. The editor of the *Cedar*

Rapids Times saw the gristmill's significance to developing towns this way in 1856:

One good flouring-mill is worth more to any village than all the county seats in lowa. The county business calls men to a town for the transaction of a peculiar class of business, which usually leaves them with little disposition, and often times with less ability, to purchase their family supplies. A commercial and manufacturing town, on the contrary, draws such funds into the legitimate channels of trade, and deposits wealth, and that, in turn, gives influence and power. Courthouses and jails are but the monuments of man's depravity, while the hum of machinery is the unmistakable voice of progress, and aids the dawn of that period when all shall win their supply by honest toil, and plenty smile at all firesides" (Parker 1856:121).

Consequently, it was common to see lowa towns offering "bonuses" to secure a flouring mill. They recognized that having one would draw trade from their farming neighbors. When a town obtained a mill other commercial services such as banks, stores, and hotels were soon to follow, complementing the mill's trade with other services (Soike 1989:3).

In the 1840s and 1850s farmers in eastern lowa counties led in producing wheat. Gradually, this began to shift westward. Railroads again played a role. Large milling plants with the newest steam-powered technologies were established in Minneapolis and Kansas City. These companies, with advertised brands like Pillsbury and Crosby-Wasburn could produce fine white flour which became very popular with housewives and



Meek Brother's Grist Mill at Bonaparte. Courtesy of the State Historical Society, Des Moines. Published with permission.

grocers. Just as pottery was replaced in popularity by clear glass containers, fine white flour came into demand over coarser, less consistent, locally milled grain. Trains could transport wheat to the mills and distribute the flour to customers quickly and cheaply, and these centers quickly eclipsed the local mills (Soike 1989:3–4).

The Meeks Flour Mill, Bonaparte

Meek's Flour Mill in Bonaparte was built in 1878. It is a well-preserved and very fine example of the water-powered grist mills that were once common in river towns throughout much of lowa during the 19th century. The original mill was built by William Meek in 1844. This original

structure was destroyed by a fire and replaced in 1878 by his son Robert.

The mill is a three-story structure built on a lime-stone foundation immediately adjacent to the Des Moines River. It had an American waterwheel, powered by a nine foot fall in the river level. The waterwheel produced the equivalent of 69 horse-power and ran the mill and other operations. The mill operated year round, a feature that was very im-

portant to local farmers, and had a daily capacity of 300 bushels. During the year ending in May of 1880, 13,000 barrels of wheat flour, 2,700 barrels of buckwheat flour, 1,500,000 pounds of corn meal and 1,000,000 pounds of feed were processed (Jacobsen 1982:3).

William Meek arrived from Michigan in 1837 looking for a site for milling purposes. He decided on the area around Honey Creek (also known as Coates Creek), near the present Bonaparte City Park. Meek received one of the original authorizations to build a dam on the Des Moines River to provide power for three mills. He and Dr. R.N. Cresap laid out the original town, then called Meek's Mills, in 1837. Meek built his mills and Cresap built a hotel (Naumann 1989:7).

Meek and his family played a central role in the town development for generations. William built a flour mill in 1841, a woolen mill in 1853, and a saw mill in 1860. These businesses made him the largest employer in the community. His son, Robert, carried on the businesses, rebuilding the flour mill in 1878. He also served as county commissioner from 1842 through 1848 and as state legislator in 1855 and 1856. Another descendant, Isaiah Meek was a member of the committee of acceptance for the new 1878 bridge at Bonaparte, and was an incorporator of the Bonaparte Academy Association (Jacobsen 1982:3).

The Meek mill defied the westward trend of the wheat industry and was still in operation in the beginning of the 20th century. By 1900 it was operated by Grant C. Scott and Stephen Blackburn and was the community's largest employer. Daniel Cresap was the last miller, operating the mill until floodwaters destroyed the dam in 1903-1905 (Jacobsen 1982:3). After that, the mill building served a variety of uses but was restored in 1977 and is operated as a restaurant and gift shop today. It was nominated to the NRHP in 1982. It is also included as part of the Bonaparte Historic Riverfront District along with Meek's three mills, associated commercial buildings, the Bonaparte Pottery, a band shell, a stone gateway and wall, and River Lock #29 (Naumann 1989).

GROWTH AND PROSPERITY

Historic Communities along the Des Moines River

Most of the settlers who moved into Iowa when it was open for settlement by the U.S. Government were interested in land. Both European immigrants and Americans from the east came seeking new opportunities. The rich, well watered soils of the state were a powerful draw. Along with the farmers came the industries and merchants that supported the settlers. The Des Moines River provided a major access route drawing people from the Mississippi River valley into the interior of the state. As a result, some of the earliest American settlements were established along its course. Milling, mining, manufacturing, and river transport formed the bases for their economies. By the late 1830s thriving communities had been established. They grew up at key points along the river where fords or ferries provided crossing points for trails and roads. They also became the locus of cultural development supporting schools, academies, and opera houses. Many significant architectural features and other structures along with archaeological properties associated with this period of development are still extant, and many are listed on the NRHP, either singly or as Historic Districts (see Table).

FARMINGTON - 1833

Farmington is the oldest incorporated town in Van Buren County. It was one of the first six towns established under lowa territorial law in 1833, when the territory was officially opened to settlement following the Black Hawk War. Its economy was based on coal and limestone mining. As it grew, the town obtained a cigar factory (1840), a flour mill (1844), and a carriage and wagon manufacturing shop (1878) (Sheets 2007:11–17).

Voltaire P. Twombly was born in Farmington in 1842. Twombly rose to fame during the Civil War. He mustered into the Union Army at age 19, joining Company K, 2nd lowa Infantry. He fought and was wounded in several battles, rising to the rank of captain. Twombly was awarded the Congressional Medal of Honor for leading a Union charge in the Battle of Fort Donelson. The capture of Fort Donelson advanced the Union control of Tennessee and Kentucky.

The national flag carried by Corporal Twombly has 34 stars, and was reportedly returned after the battle and placed in the State Capitol in 1894. It is being conserved as part of lowa's Battle Flag Project (http://www.iowahistory.org/museum/exhibits/medal-of-honor/sf-02-twombly-cw).

After the war Twombly served as the treasurer for Van Buren County for eight years, was elected mayor of Keosauqua in 1884, and was treasurer of the State of Iowa between 1885 and 1891. He left public service and took the position of president at the Home Savings Bank in Des Moines, retiring in 1901 (1890 Portrait and Biographical Album of Jefferson and Van Buren Counties, Iowa; Anderson 2004:17).

BENTONSPORT - 1836

Bentonsport was settled at a river crossing that had long been in use by Native Americans. It was founded in 1836 as the "Ross Settlement" and later platted as the village of Bentonsport in 1839 (Claudle 1971:3; Sheets 2007:33). The town name derives from the fact that Missouri Senator Thomas Hart Benton was instrumental in getting a steamboat dock established at this



Phoenix Hotel (a.k.a. Manson house), Bentonsport, Iowa. John Wenck, Iowa DNR.

location. People popularly referred to the town as "Benton's Port" and the name Bentonsport was officially assigned to the post office established there in 1852 (Sheets 2007:34). This town was one of the sites selected for construction of a lock and dam as part of the Des Moines River Improvement Project. Lock and Dam #6 was built across the river here, raising and lowering boats twelve and a half feet. The lock and dam and boat dock served the town's economy well. Steamboats regularly visited bringing goods and passengers until the dam collapsed in the early 1870s. The town built a new dam of wood and stone, but that was also destroyed by river ice two years later (Sheets 2007:35). By this time the heyday of steamboats was over and the dam was never rebuilt.

Along with its steamboat dock, the town also boasted a grist mill (which was later converted to a woolen mill), hotel, blacksmith shop, bank, dry goods store, and the Bentonsport Academy. Later, a paper mill was also built which operated until it burned in 1905. The village was home to a number of famous personages including the Honorable George W. McCrary, Secretary of War under President Rutherford B. Hayes; U.S. Senator from Illinois, William E. Mason; William A. Clark, U.S. Senator from Montana; journalist Martha Burton; Gideon Bailey, U.S. Marshall and state senator, and writer Albert Bigelow Paine.

When the members of the Church of Jesus Christ of Latter Day Saints left Nauvoo, Illinois in 1846 a number of them stayed in Bentonsport for a while working and saving their money until they could afford to gather supplies and join the

migration to Salt Lake City (Sheets 2007:33). The town boasts a number of buildings constructed by Mormon emigrants. One of these buildings is the Mason House Inn, which retains its original 19th century furnishings (National Park Service 2005:13).

During the Civil War, steamboats docked at Bentonsport carrying soldiers to war and bringing the wounded to hospitals. The Phoenix Hotel [also called the Manson House] in Benton-sport sometimes served as a temporary hospital as the wounded waited for boats or trains that could carry them on to hospitals in larger towns. The owner of the hotel, Mr. Manson, is also reported to have operated a station of the Underground Railroad from the barn behind the hotel (Sheets 2007:36).

After the Civil War the railroad moved away from Bentonsport and manufacturing soon followed. Many of the buildings associated with these early enterprises are still standing, and though they may be in need of repair, are considered good examples of architecture of the period (Claudle 1971:2). Taken as a whole, the entire village was nominated to the NRHP as one of the few remaining unchanged riverfront villages (Claudle 1971).

BONAPARTF - 1837

Bonaparte was founded as Meek's Mills in 1837. It was renamed in 1841 to complement the proposed town of Napoleon which was to be established across the river (Sheets 2007:21). Napoleon never developed but Bonaparte rapidly became a center of industry and culture. The town was situated at a spot along the river where William Meek built a lock and dam across the river. The dam created a nine foot drop in river level, and Meek installed a waterwheel at this point to power his grist, wool, and saw mills. By 1866 Parker and Hanback had established their pottery, and the riverfront became



Remnant of Lock and Dam #5, Bonaparte, Iowa, from Muessig 1977.

a thriving manufacturing center. Besides the pottery and Meek's mills, the town manufactured carriages, cigars, and men's pants (Sheets 2007:21).

Banks, hotels, an opera house, and other businesses grew up alongside manufacturing. Among these was the Aunty Green Hotel. Built in 1841, just three years after the town was laid out, the two story hotel was the first brick building in Bonaparte. It was built and operated by an English immigrant, John Green. His wife Mary took over the business after John's death and it became popularly known as "Aunty Green's Hotel" (Warner 1978:3). The hotel was nearly demolished in 1971, but local residents organized to acquire the property and restore the structure. Now administered by the Bonaparte Historical



Association, the hotel houses the town library and historical museum (Sheets 2007:21–22). Original architectural features which can still be seen include the wood flooring, chair rails, walnut staircase, two fireplace mantles, and a stone fireplace in the basement. As one of lowa's oldest structures, the hotel was nominated to the NRHP in 1978 and stands as a testament to what concerned citizens can accomplish for historic preservation (Warner 1978).

The entire Bonaparte Riverfront area is an illustration of how major businesses influenced the economic development of a town. It is considered representative of the small 19th century riverfront communities that were integral in the development in the Des Moines River valley between 1887 and 1909 and was placed on the National Register as an Historic District in 1989 (Naumann 1989). The district includes thirty-eight key resources and twenty-five contributing resources (Naumann 1989:3).

KEOSAUQUA - 1839

The Van Buren County seat, Keosauqua, was established in 1839 at an important river crossing point on the big horseshoe bend of the river. This was reported to have been the site of the first claim in the county staked by John Silvers in 1835. At this location, the Des Moines River runs over bedrock and can easily be forded in low water conditions. Two small villages had already been established in the area, one named Des Moines and another named Van Buren. Des Moines boasted a stone hotel and livery stable

and Van Buren a church, cabin and store. A stone grist mill was also built nearby. When the Wisconsin territorial government established Keosauqua as the county seat for Van Buren County in 1837 the settlers of Keosauqua and Des Moines decided to combine the two towns (Anderson 2004:14–15).

In January 1839, the Wisconsin Territorial Legislature passed an act that continued the town's position as county seat. As county seat and trading center, the town drew business from the rural farms and other villages throughout the area. Edwin Manning built a two story mercantile store on the site of John Silver's first cabin in 1839. The beautiful County Courthouse was built in 1843, and Manning's store expanded to include a bank in 1854. The Des Moines River navigation project also completed Lock and Dam #7 at Keosauqua in 1854. Edwin Manning owned and operated several steamboats and became the official supplier of goods to the Fort on the junction of the Raccoon River and Des Moines River (Woodruff 1972: 2; Anderson 2004:16-17; Sheets 2007:46). Streets along the river front were crowded with businesses. Keosaugua still has a number of structures from this boom period. Many of these are on the NRHP. Included are the Manning Hotel, County Courthouse, Twombly Building, and Pearson House.

Hotel Manning

The Hotel Manning was built in the late 1890s on the site of one of the worst fires in Keosauqua history. The fire destroyed two blocks of



Hotel Manning interior view, Keosauqua, Iowa. Woodruff 1972.

Hotel Manning exterior view, Keosauqua, Iowa. Courtesy of Mossy Oak Properties, Boley Real Estate.

Twombly Building, Keosauqua, Iowa. Courtesy of the Van Buren Historical Society.

buildings in the riverfront business area. The hotel was constructed on the foundation of Edwin Manning's Mercantile store after the fire. It was expanded to include a second floor in 1897, and a third floor and restaurant were added in 1899. The architectural style of the building is known as "Steamboat Gothic", and it is believed to have been inspired by Manning's trips down the Mississippi River to New Orleans (Woodruff 1972:2). The hotel grand opening in 1899 was a gala ball attended by more than 300 guests (Anderson 2004:17).

The hotel was subject to flooding. On at least one occasion steamboats delivering supplies to

the town tied up to the hotel porch, extended the gang plank, and carried supplies straight into the building. In the flood year of 1903, when water rose to a height of seven feet, row boats were used to carry guests across the lobby to the stairway and were tied to the banisters (Anderson 2004:17).

The Twombly Building

The Twombly Building is Keosauqua's old post office building, built in the 1870s. Although historical records are unclear, tradition holds that Captain Voltaire Twombly built the building. At one stage, the building housed a bakery which helped provide supplies to Kelly's Army,



a branch of Coxey's Army. These were unemployed veterans of the Civil War who traveled to Washington D.C. in the 1890s to protest their unemployment and the lack of government support. The men were considered rowdy and were not allowed to get off the boats at Keosauqua, so local merchants supplied them food which they delivered to the boats (Anderson 2004:17).

Pearson House

This fine brick house was built by Benjamin Franklin Pearson between 1845 and 1847. Pearson (1815–1883) was a master stone mason from Maryland who came to lowa about 1835, shortly after the first land was open to settlement. He lived for a time near Pittsburg and in Eldon, before settling in Keosauqua. Pearson was a devout Methodist and opened the second floor of his house for community church services. He was also a staunch abolitionist, and his home became a station on the Underground Railroad of the 1850s. Runaway slaves were hidden in a safe room under the floor entered through a trap door (Woodruff 1978:3).

Ely Ford

Not far from the town of Keosauqua, on the edge of Lacey-Keosauqua State Park, is Ely Ford. This river crossing was named for John Ely, an early settler in the area who built a cabin at this location in the 1830s. This stretch of the Des Moines River runs over bedrock and can be easily forded in low water conditions. Contrary to some local lore, this ford was apparently not a major crossing point for the Mormons on their trek to Salt Lake City. The Mormon trail went straight west from the Sugar Creek Camp to Farmington rather than following the river around the big bend. The trail crossed the river near Bonaparte (Garvin 2004:26–27). Ely Ford was, however, well used by local travelers and others moving westward. Ely Ford lies just north of the confluence of Ely Creek, Duckworth Creek, and the Des Moines River. Duckworth Creek is named for the Duckworth Sawmill located on the creek.



Franklin Pearson House, Keosauqua, Iowa from Woodruff 1978.



Des Moines River at Ely Ford, Lacey-Keosauqua State Park. Photographed by John Wenck.

TRAVELING THE RIVER IN THE 21ST CENTURY



In our modern era, you can fly over vast expanses of the United States without ever seeing them, or, you can flash past in an automobile unaware of the people and stories that helped create the communities around you. A trip down the Des Moines River offers an opportunity to take a closer look at the river and the land, and to learn about how they have shaped the story of lowa. The river helped create the landscape that we see today, carving deep into ancient sediments and stone in some places, and laying down thick layers of sand and silt in others. Its forests and wetlands have provided people with a wealth of plants and animal resources for thousands of years. Coal, limestone, clay, and other mineral resources from its banks were the raw materials that helped build the developing state, and the river itself powered the mills and moved people and products. People depended on the river's largess and feared the disaster that could be brought by flood, drought, or shipwreck.

The river has changed dramatically in the last three centuries. Before Iowa became a state, the river valley was heavily wooded, and low wetland areas created a wealth of microhabitats for plants and animals. The uplands supported a grassland biome. As the land was plowed, wetlands drained for farming, and trees were cut for lumber and fuel, runoff and erosion increased, banks slumped, and the river channel filled with sand and silt.

Although steamboats no longer ply the waters of the Des Moines River, canoes and kayaks can. Those who choose to travel the river can glimpse into the past. They can view the rocks that tell of ancient seas millions of years ago and look for erratics carried in by glaciers from places far to the north. They can glimpse evidence of the lives of the first people in the archaeological sites and burial mounds that mark the passage of their lives. Modern explorers can visit the historic villages that were some of the earliest Euro-American settlements in the lowa Territory. Many architectural treasures have been preserved in these towns bringing the past into the present. These properties reflect trends in agriculture and industry and tell personal stories of the people who came to live here. Some are associated with important historic individuals and events from earliest land claims through the Civil War.

Canoes on the Des Moines River, 2013. Photographed by John Wenck.

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ACKNOWLEDGEMENTS

Many individuals contributed to the successful completion of the project. Special thanks are owed to John Wenck, Iowa Department of Natural Resources, for his guidance and support. Lynn Alex and Cindy Peterson of the University of Iowa Office of the State Archaeologist were instrumental in both planning and execution.

Julie Ohde, of Pathfinders Resource Conservation and Development (RC&D), coordinated two paddle trips for the Des Moines Water Trail History programs. Thanks also to Joe A. Artz, Earthview Environmental, Inc., and Raymond A. Anderson, Iowa Geological Survey, for permission to reprint "The Myth of the Mound Builders" from the Geological Society of Iowa 2004 Guidebook and to Holmes A. Semken Jr., University of Iowa Geosciences, for providing the tables of Pleistocene mammals found in Iowa. Mary Bennett and Marvin Bergman, State Historical Society of Iowa, Iowa City, Becki Plunkett, State Historical Society of Iowa, Des Moines, and John Wenck provided assistance with obtaining photographic images for the booklet.

The author would also like to acknowledge the expertise and editorial assistance provided colleagues at the Office of the State Archaeologist:

Lynn Alex, Angela Collins, John Doershuk, Elizabeth Reetz, and Cindy Peterson

The efforts of many local individuals and organizations helped to make the project a success. Special thanks to:

Joe A. Artz, Rick Woten, City of Bonaparte, Lacey-Keosauqua State Park, Marilyn Thomas, Bonaparte Pottery, and Pathfinders RC&D.

IMAGE SOURCES

All images are for educational purposes only. Images and maps are from the University of Iowa Office of the State Archaeologist unless otherwise noted.

NRHP PROPERTIES

Property	Dates	Significance	Nomination
Hotel Manning, Keosauqua	Built 1854	Built on the site of the cabin of the first claim staked in Van Buren County. It operated as a general store and bank from 1854 to 1893. Remodeled as a hotel in 1899.	Woodruff 1972
Pearson House, Keosauqua	1845–1847	Built by Benjamin Franklin Pearson, a devout Methodist and staunch abolitionist. The home became a station on the Underground Railway. Runaway slaves were hidden in a safe room under the floor that was entered through a trap door.	Woodruff 1978
Twombly Building, Keosauqua	1870s	Tradition holds that Captain Voltaire Twombly, Civil War Captain and later treasurer of the State of Iowa, built the building.	1993
Midway Stock Farm Barn a.k.a. Galloway Barn, Keosauqua	Ca. 1880	As a dairy barn the structure was equipped with the top-of-the line technology from the Louden Machinery Company including an automated litter carrier system, monorail constructed of wood, and a metal hay carrier which can still be seen in the building.	Page and Walroth 1997
Des Moines River Bridge, Keosauqua	1939	The 1,039 trusses are significant for their uncommon "Warren web" configuration. This is the only known bridge of this type in lowa.	Fraser 1994
Bentonsport	1839–1905	The bank, blacksmith shop, and two store buildings reflect a mid-19th century village style known as "Federalist" or "Colonial" type.	Claudle 1971
Des Moines River Locks #5 and #7, Bonaparte and Keosauqua	1850s	These are the only surviving structures from efforts to control the river for steamboat navigation by the Des Moines River Improvement Project.	Muessig 1977
Van Buren County Courthouse, Keosauqua	Built 1840–1843	This building represents Greek Revival style architecture. The two story structure is built of red brick laid in common bond on a dressed limestone foundation.	Woodruff 1977
Aunty Green Hotel, Bonaparte	Built 1841	This structure is one of lowa's earliest surviving structures. It was built of locally made brick built by John Green.	Warner and Watson 1978
Burg Wagon Works Building, a.k.a.Lewis Burg Building Farmington	Built 1867–1868	This limestone structure is a significant example of local industry and industrial architecture in 19th century lowa. It was built by Lewis Burg for manufacturing wagons.	Linwood and Linwood 1978
Meek's Flour Mill, Bonaparte	Built 1878	A well-preserved and very fine example of a water-powered flour/grist mill once commonly associated with riverside towns in the 19th and early 20th centuries.	Bowers 1980
Bonaparte Historic Riverfront District	1837–1909	The district is ca. 3 blocks long, extending from the river bank north to Second Street. It includes 35 buildings, a stone gateway and wall, a bandshell, and lock #29. All are related to the economic development of the town between 1837-1909.	Naumann 1989
Civilian Conservation Corps properties in Iowa State Parks	1933–1942	CCC properties in Lacey-Keosauqua State Park represent the New Deal works projects during the depression. They include the artificial lake and approach steps, stone bridge, stone quarry, lodge, shelter buildings, and entry gates.	McKay 1989
CCC Lodge and Picnic Area A, Lacey-Keosauqua State Park	1933-1942	The lodge and picnic area, includes a gatehouse and portals, lodge, well pit, picnic shelter, and a regulatory sign. The structures reflect the mature rustic landscape architecture style as it developed during the CCC period.	McKay 1990a
CCC Picnic Area B, Lacey- Keosauqua State Park	1933-1942	Area B, in the north central portion of the park, includes the custodian's residence and a grouping of picnic a shelter, two latrines, a water fountain, and several retaining walls at the entry to the picnic shelter. The structures reflect the mature rustic landscape architecture style as it developed during the CCC period.	McKay 1990b
CCC Bathing Area , Lacey-Keosauqua State Park	1933-1942	The bathing area, includes the bathhouse, beach, pump house, lake, dam, spillway, trail surrounding the lake, and the check dams and footbridge along this trail. The structures reflect the mature rustic landscape architecture style as it developed during the CCC period.	McKay 1990c
Kilbourn Bridge, Kilbourn	1908	This bridge was first built over the Des Moines River in 1890 to replace the Kilbourn ferry crossing. The first bridge was destroyed by flooding in 1903 and rebuilt in 1907. The bridge remains essentially unaltered as it continues to carry vehicular traffic.	Fraser 1994

NRHP PROPERTIES

Property	Dates	Significance	Nomination
Bonaparte Pottery Archaeological District, Bonaparte	1866-1895	The site encompasses two lots along the north bank of the Des Moines River on the south side of Front Street. The architectural components of this property include the 1876 pottery factory building and the remains of kilns. It is representative of the early pottery industry in lowa.	Rogers 1999
Goodin Building, Farmington	Built 1875	This building was built in 1875 for local businessman William Goodin. It is a full two-story building constructed in the Late Victorian/Romanesque style. It is significant as a surviving example of late 19th century commercial design.	Cochenour 2002
Vernon School, Vernon	1868	This is a two-story brick building and two associated privies which sit on a hill overlooking the Des Moines River. It is considered an outstanding example of a 19th century public school and of the Italianate style of public architecture.	Mohr 2002

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Back Cover: view of Des Moines River from Iowaville.

