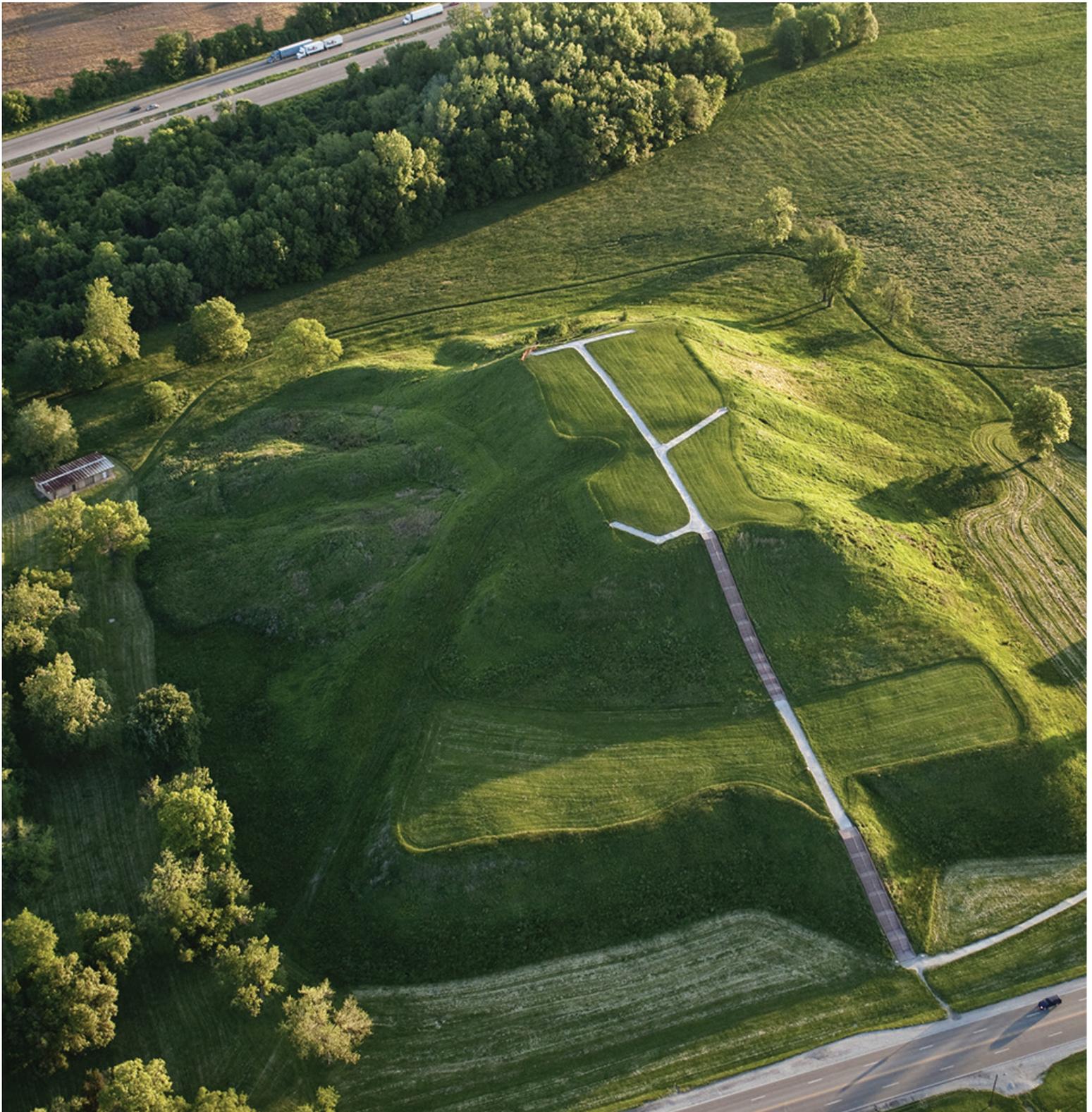




NATIONAL PARK SERVICE
U.S. DEPARTMENT OF THE INTERIOR

CAHOKIA MOUNDS RECONNAISSANCE SURVEY

DECEMBER 2016



Cover Photo: This is an aerial image of Monks Mound, the largest earthen mound in North America, At Cahokia nearly 120 earthen mounds were constructed. Some like Monks Mound are still visible on the landscape; however, many more are only remnants beneath the surface. Photo is courtesy of National Geographic photographer, Ira Block, featured in January 2011 article, "Cahokia: America's Forgotten City" by Glenn Hodges.

ACKNOWLEDGMENTS

Contributors:

Tokey Boswell, Chief of Planning and Compliance, Midwest Region

Robert Bryson, Associate Regional Director, Cultural Resources, Midwest Region

Natalie Franz, Planner, Midwest Region

Timothy Good, Superintendent, Ulysses S. Grant National Historic Site

Vergil Noble, Archeologist, Midwest Archeological Center

Margaret Robinson, Intern, Midwest Archeological Center

Timothy Schilling, Archaeologist, Midwest Archeological Center

Thomas Sheffer, Program Analyst, Park Planning and Special Studies Division, Washington Office

Kathryn Thomas, Curator of Cultural Resources, Jefferson National Expansion Memorial

Brenda Todd, former Planner and Cultural Resource Specialist, Denver Service Center

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This study has been prepared to explore specific resources and advise on whether these resources merit further consideration as a potential addition to the national park system. Publication or transmittal of this report should not be considered an endorsement or a commitment by the National Park Service to seek or support specific legislative authorization for the project or its implementation. This report was prepared by the United States Department of Interior, National Park Service, Midwest Region. For more information, contact:

Tokey Boswell
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, NE 68102-4226
(402) 661-1534

EXECUTIVE SUMMARY

This reconnaissance survey is a preliminary resource assessment of the Cahokia Mounds and related archeological sites in the greater St. Louis area in Missouri and Illinois. The survey was conducted by the National Park Service (NPS) at the request of Illinois Senator Richard J. Durbin. The survey effort evaluated the likelihood that the resources in the reconnaissance survey area would meet the four criteria for inclusion in the national park system: national significance, suitability, feasibility, and need for direct NPS management. The survey provides a cursory review and analysis of available information to determine whether a more detailed and definitive study, called a special resource study, is warranted.

The reconnaissance survey assesses both the Cahokia Mounds State Historic Site and thematically connected archeological sites. The mounds at Cahokia were a regional ceremonial and civic center for Mississippian people. In addition to the core area of the mounds preserved by the state park, there were many related settlements and outlying sites. Of the hundreds of related sites in the greater St. Louis area, the following sites are included in this survey in addition to Cahokia Mounds: St. Louis Mounds, East St. Louis Mounds, Mitchell Mounds, Sugar Loaf Mound, Pulcher Mounds, and Emerald Mounds.

Cahokia Mounds and the other sites included in this survey are connected by their cultural history. The sites were part of the Mississippian cultural expansion that occurred approximately one thousand years ago. Mississippian is the name given by archeologists to the societies that lived in the southeastern and midwestern U.S. after about AD 1000. Some Mississippian societies were small; others, like Cahokia, may have been demographically, spatially, and temporally extensive.

At Cahokia, Mississippians built over 120 earthen mounds, including Monks Mound, the largest earthen mound in North America. Cahokia Mounds and outlying sites may collectively

represent the first city in what is now the United States. Today the earthen monuments, mounds, and the remnants of cities, towns, and villages built by the Mississippians are found across the southeastern and midwestern U.S. Some features, such as Monks Mound, are visible, but many more are beneath the surface of the contemporary landscape.

SURVEY FINDINGS

National Significance: Cahokia Mounds State Historic Site is located in Collinsville, Illinois, and is administered by the Illinois State Historic Preservation Agency. The site is a National Historic Landmark and a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site. Therefore the Cahokia Mounds definitively meet the criteria for national significance. The study identifies two outlying sites, Emerald Mounds and Pulcher Mounds, as warranting further study to make a definitive national significance determination. The other outlying sites considered in this survey either lack sufficient documentation, have few extant resources, or both, meaning it is unlikely they would be found to meet the criteria for national significance without additional archeological investigation and scholarship.

Suitability: Cahokia Mounds are unmatched in scale and importance by any other Mississippian sites protected by the National Park Service. Though many sites outside the national park system preserve and interpret nationally significant examples of Mississippian settlements and mounds, it is possible that Cahokia would meet the suitability criteria for inclusion in the national park system because of its global importance, both as an example of Mississippian Culture and as an exceptional example of the study and memorialization of Native American culture. Many outlying sites are not likely to be found to be suitable because either public enjoyment opportunities are limited or because they are similar to Mississippian sites already

protected and interpreted by other entities; however, the study finds two mound sites warrant further study to make a determination.

Feasibility: Cahokia Mounds State Historic Site is likely to be found feasible to manage as a unit of the national park system, since it has been demonstrated to be capable of efficient administration as a public park. There are challenges for outlying sites and resources to meet the criteria for feasibility because there are no extant facilities that would accommodate visitors or maintenance at these outlying sites, and thus management by the NPS may require large expenditures to secure the archeological resources, maintain the grounds and provide visitor experiences.

Need for NPS Management: Cahokia Mounds State Historic Site is already protected and managed for resource protection and public enjoyment by the Illinois Historic Preservation Agency. So long as the state of Illinois effectively manages, protects, and interprets the site, Cahokia Mounds may not demonstrate a need for direct NPS management. However, the State of Illinois has experienced significant financial constraints over the last decade, resulting in a substantial reduction in the amount of funding for the park. The funding cuts result in threats to park infrastructure and operations. When considering these long term trends, direct NPS management may be found in a full study to be both needed and clearly superior to other alternatives. For the outlying sites, consideration of direct NPS management would only be warranted if they were found to meet the criteria for significance, suitability, and feasibility.

CONCLUSION

At Cahokia Mounds State Historic Site, the nationally and globally significant resources are currently protected, interpreted, and are open to visitors, but their long-term future seems uncertain. The NPS recommends a special

resource study be authorized to more thoroughly evaluate the criteria for inclusion in the national park system, to develop management scenarios for the site, and engage the public on potential NPS management of the site. The NPS further recommends that should a special resource study be authorized that it also consider Emerald Mounds and Pulcher Mounds. For other outlying areas, given lack of substantive information the NPS finds most are unlikely to meet the criteria for inclusion in the national park system.

The other outlying sites do have needs for preservation and interpretation, but the NPS believes the management of these sites may be best undertaken by state or local organizations. The NPS finds that there is excellent preservation, research, interpretive, and promotional work being done by the Illinois Historic Preservation Agency, Cahokia Museum Society, HeartLands Conservancy, Powell Archaeological Research Center, The Archaeological Conservancy, and many other partners, private owners, and volunteers. It is recommended that state, regional, and local entities continue to seek assistance from the NPS through available technical assistance and grant programs. Options for NPS involvement and technical assistance are described in the survey.



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Figure 1: Aerial view of Cahokia Mounds State Historic Site. Combination graphic by National Geographic photographer, Ira Block, for January 2011 magazine article.



INTRODUCTION

This reconnaissance survey is a preliminary resource assessment of the Cahokia Mounds and related archeological sites in the greater St. Louis area. The assessment is based on Congressionally established criteria for inclusion in the national park system. The survey was requested in a letter to the National Park Service Midwest Regional Director in February of 2014 from Illinois Senator Richard J. Durbin, who asked that the NPS conduct a reconnaissance survey of Cahokia Mounds and thematically connected satellite sites. The survey provides a cursory review and analysis of available information to determine whether a special resource study (SRS) is warranted.

Studies for potential new units of the national park system, called special resource studies, are conducted by the NPS only when authorized by Congress and signed into law by the President. The SRS process is designed to provide definitive findings of a site's significance, suitability, feasibility, and the need for direct NPS management; and, if those criteria are met, identify and evaluate potential resource protection strategies, boundaries, and management alternatives.

RECONNAISSANCE SURVEY PROCESS

While specific authorization from Congress would be necessary to conduct a SRS, the NPS is authorized to conduct preliminary resource

assessments and gather data on potential study areas or sites. The term "reconnaissance survey" is used to describe this type of assessment. Its conclusions are not considered final or definitive. A reconnaissance survey examines the natural and cultural resources in a study area to provide a preliminary evaluation of their significance, and the suitability and feasibility of protecting those resources as a park unit. If a study area appears potentially eligible for inclusion in the NPS system, then the NPS may recommend that a special resource study be authorized by Congress.

The Cahokia Mounds Reconnaissance Survey examines the resources of Cahokia Mounds State Historic Site and other Mississippian mound sites in the greater St. Louis area of Missouri and Illinois. The study summarizes the historic context of the areas included, describes their existing conditions, and identifies those entities involved in existing preservation and interpretation efforts. The criteria for inclusion of these areas in the national park system are preliminarily assessed. The survey concludes with recommendations for further study.

ABOUT THE NATIONAL PARK SYSTEM

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and



Figure 2 : Details from painting of Cahokia circa AD 1150 by William R. Iseminger. The image shows canoes docked along Cahokia Creek along with house, a walled compound, stockade wall and mounds in foreground. Full painting shown in Figure 5. Photo courtesy of Cahokia Mounds State Historic Site.

future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service, both individually and collectively, accomplishes and pursues its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior

to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises 401 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.

Units of the national park system are established by legislation passed by Congress and signed by the President, or are designated national monuments through presidential proclamation. Designation as a unit of the national park system assumes NPS management of a site or NPS management of part of a site paired with close partnerships with other entities within the established park boundaries. This designation entails NPS financial and personnel support of park management and the adherence to

applicable laws and policies for NPS owned properties and NPS actions.

CRITERIA FOR INCLUSION IN THE NATIONAL PARK SYSTEM

The following are the criteria a site must meet to be recommended for inclusion in the national park system.¹¹

1. **Significance:** Determinations of an area's national significance are made by NPS professionals in consultation with scholars, experts, and scientists following specific criteria. The National Park Service has adopted four criteria to evaluate the national significance of proposed areas. These criteria, listed in NPS Management Policies 2006, state that a resource will be considered nationally significant if it meets all of the following conditions:

- It is an outstanding example of a particular type of resource.
- It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
- It offers superlative opportunities for public enjoyment or for scientific study.
- It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.
- National significance for cultural resources will be evaluated by applying the National Historic Landmark (NHL) criteria contained in 36 CFR Part 65.4 (Code of Federal Regulations). See Appendix C.

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2. **Suitability:** A property is considered suitable if it represents a resource type that is not currently represented in the park system or is not comparably represented and protected for

¹¹ See Appendix B for the full text of NPS Management Policies 2006 "Section 1.3: Criteria for Inclusion."

public enjoyment by another agency or entity. Adequacy of representation is determined on a case-by-case basis by comparing the type, quality, quantity, combination of resources present, and opportunities for public enjoyment.

In addition to resource conservation, the fundamental purpose of all parks is to provide for the enjoyment of park resources and values by the people of the United States. Public enjoyment of national park units are preferably those forms of enjoyment that are "uniquely suited to the superlative natural and cultural resources found in the parks and that (1) foster an understanding of and appreciation for park resources and values, or (2) promote enjoyment through a direct association with, interaction with, or relation to park resources."¹²

3. **Feasibility:** To be considered feasible, an area must be of sufficient size and appropriate configuration to ensure long term protection of the resources and to accommodate public use. The area must have potential for efficient administration at a reasonable cost. Other important feasibility factors include land ownership, acquisition costs, current and potential use, access, level of local and general public support, and staff or development requirements.

4. **Direct NPS Management:** Even if a resource meets the criteria of national significance, suitability, and feasibility, it will not always be recommended that the resource be added to the national park system. There are many excellent examples of important natural and cultural resources managed by other federal agencies, other levels of government, and private entities. A proposed addition must require direct NPS management instead of protection by other public agencies or the private sector, and the evaluation of management options must show NPS management is the clearly superior alternative. Because a reconnaissance survey does not propose management alternatives, there will be only a cursory discussion of need for direct NPS management presented here.

¹² NPS Management Policies 2006 Section 8.1.1.



Figure 3: Monks Mound at Cahokia SHS, viewed from the Grand Plaza. NPS photo.

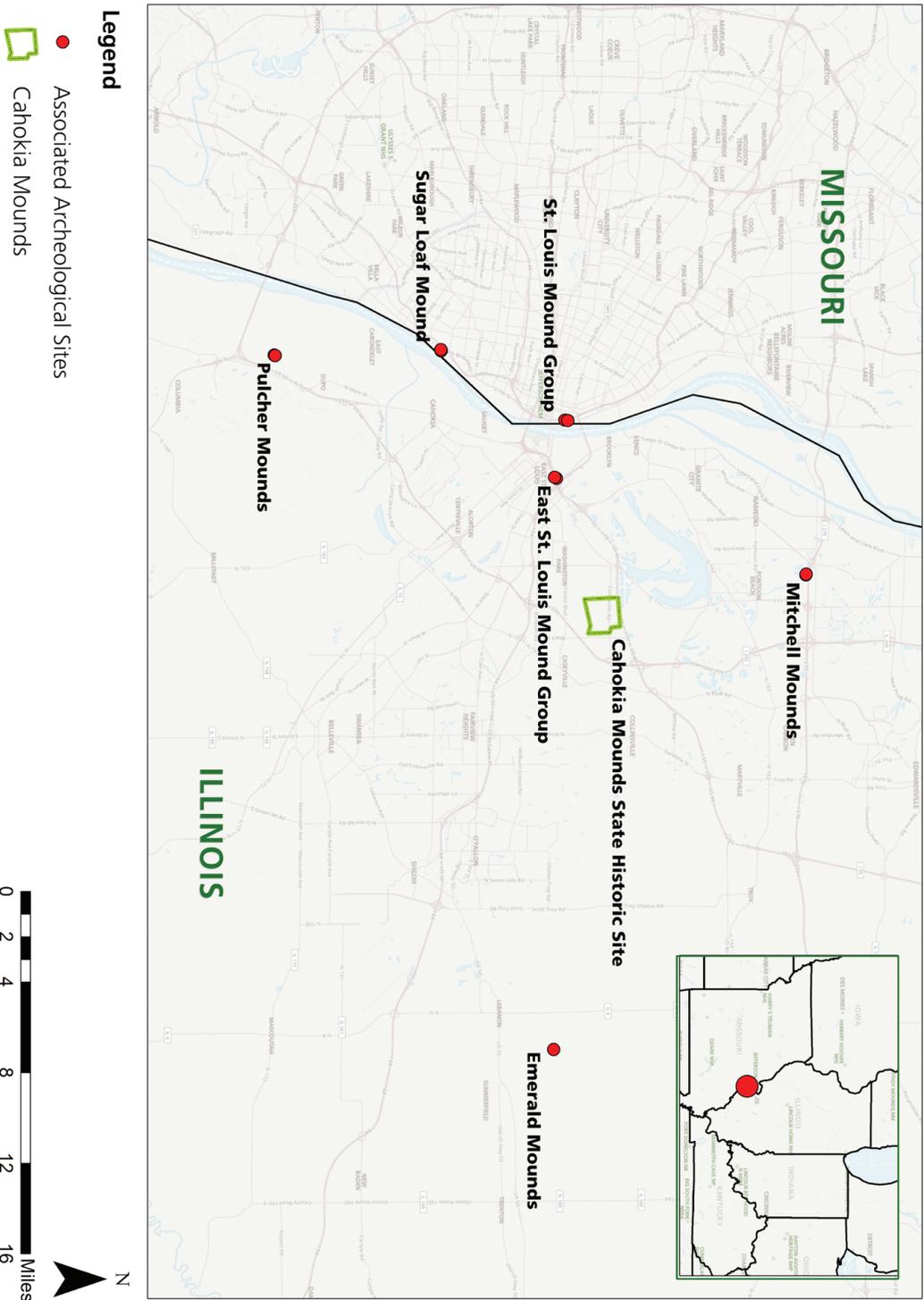
RESOURCES ANALYZED IN THIS SURVEY

The mounds at Cahokia were a regional ceremonial and civic center for Mississippian people in what is today the greater St. Louis area. In addition to the core area of the mounds preserved by the state historic site, there were many related settlements and outlying sites. This situation appears to be unique; no other cultural system in the pre-Columbian United States attained the scale or complexity of Cahokia. Consequently, these sites provide insight into social processes that are vital for understanding both regional histories and the modern world as we know it today.

The reconnaissance survey request from Senator Durbin asked the NPS to evaluate both the central Cahokia Mounds site and thematically connected satellite sites. Of the hundreds of related sites in the greater St. Louis area, the following sites are included in this survey because 1) they are either listed on the National Register of Historic Places (NRHP), meaning they have some level of existing evaluation of their importance and integrity, or 2) they are potentially eligible for listing in the NRHP though they have not been formally evaluated, because recent excavation suggests important archeological information still exists. Cahokia Mounds, St. Louis Mounds, East St. Louis Mounds, Mitchell Mounds, Sugar Loaf

Mound, Pulcher Mounds, and Emerald Mounds are included in this survey (formal definition of the sites is included in the following section).

Cahokia Mounds Reconnaissance Survey Study Area



Legend

- Associated Archeological Sites
- Cahokia Mounds

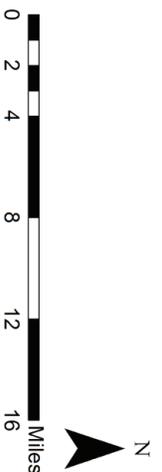




Figure 4: 1907 Monks Mound. Photo courtesy of the Library of Congress.

HISTORIC CONTEXT

GEOGRAPHY

Cahokia Mounds State Historic Site (SHS) and other thematically connected archeological sites included in this survey are located in and adjacent to the American Bottom. Lying immediately east of St. Louis, Missouri, the American Bottom is the name for the central portion of the Mississippi River Valley between the confluence of the Missouri, Illinois, and Mississippi rivers in the north and the intersection of the Mississippi and Kaskaskia rivers in the south. The floodplain widens to about 9 miles at the widest point in the north and narrows to about 2 miles wide in the south. Steep limestone bluffs bound the river valley on both the east and west. Since the end of the last glaciation, the Mississippi River has meandered across the valley leaving many oxbow lakes and remnant river and stream features. Since about AD 900, the river has been impounded to the western side of the valley along the bluff edge. At that time, the landscape consisted of abundant wetlands interspersed between abandoned Mississippi River channels bordered by prairies on the eastern uplands and woodlands on the western uplands. Early levees and dams built by the Army Corps of Engineers in the 19th century constrained the river to its present course. Since then, the wetlands were drained and converted to farmland in the southern American Bottom while the northern American Bottom has been industrialized.

MISSISSIPPIAN CULTURE

Cahokia Mounds SHS and the other archeological sites in this survey are connected by their shared participation in the Mississippian cultural florescence in the American Bottom approximately one thousand years ago. These sites may collectively represent the first city in what is now the United States. No place in the United States achieved a larger population until Philadelphia's population exceeded Cahokia's in 1800.

Mississippian is the name given by archeologists to the societies that lived in the southeastern and midwestern U.S. after about AD 1000. Overall, Mississippians had generally similar technological, economic and symbolic practices which appear widely distributed in Eastern North America. Traditionally, Mississippian culture is recognized by the appearance of shell-tempered pottery and the construction of wall trench houses, both major technological innovations. Mississippians grew maize and lived in small villages located along the major interior rivers and streams. Some archeologists describe Mississippian societies as chiefdoms, but a wide range of variation is encompassed by this category. Some Mississippian societies were very small and may have consisted of just a few extended families or clans living in a single village or cluster of houses. Others, like Cahokia,

may have been demographically, spatially, and temporally extensive with many interconnected people who lived across wide swathes of the landscape and had deep historical roots in these places. The inferred presence of a chief or other entrenched, heritable position of leadership and social hierarchies not seen previously are a hallmark of Mississippian societies. Mississippian people were the predecessors to the historical people living in North America at European contact and are considered the forebearers of many modern Native American groups.

While major shifts in technology, subsistence, settlement patterns, and social organization mark the onset of Mississippian culture, it is also widely recognized as a watershed moment in the development of Native American belief systems and religion. The archeological record suggests that from about AD 1000 to AD 1400, specific symbols and styles, probably relating to ideas about the cosmos and the workings of the world, are widespread across Eastern North America and likely historically connected. In addition to material objects, architecture and landscapes are also believed to be symbolically charged and indicative of common worldviews. Mississippians built three main types of mounds at Cahokia and in the American Bottom. Platform mounds are four-sided, quadrilateral flat-topped mounds that supported wood and thatch buildings on their summits. Usually these were the houses of chiefs or served as other important communal buildings. In addition to their overt function, platform mounds also play important symbolic roles as places of creation or emergence. Conical, or cone-shaped mounds were built as burial mounds. At Cahokia, paired platform and conical mounds are believed to have functioned in death and mortuary rituals. Finally, ridge-top mounds may have functioned as markers to denote special spaces. These are rectangular or oval-shaped mounds placed at what may have been the ancient boundaries of the Cahokia site. Often, human burials and other caches of symbolic, exceptional, or unusual materials are found in ridge-top mounds.

CAHOKIA MOUNDS

Cahokia Mounds, approximately 8 miles northeast of St Louis, Missouri, is the largest pre-Columbian settlement north of Mexico. Over an approximately 6 square mile area Mississippians built over 120 earthen mounds, including Monks Mound (30 meters or 100 feet tall), the largest earthen mound in North America. The mounds line the edges of plazas, or large open space where communal activities, such as dances or games, occurred. Cahokia is both one of the largest archeological sites in the United States and one of the longest occupied. In addition to the extant architecture, evidence of nearly 400 years of continuous use is recorded in the archeological record at Cahokia.

Archeological evidence of people living in the area during the Late Archaic Period (ca. 1200 BC) was found during the construction of the state's visitor center, but the early occupation was ephemeral. Sometime after AD 650, people began to use the site for appreciable durations and at noticeable scales. Due to the scale and intensity of later Mississippian construction and earthmoving, the earliest remains are scant. Villages that can be clearly associated with the Mississippians at Cahokia appear about AD 900. Archeologists believe the Mississippians lived in village communities made up of extended families who arranged their houses around small central plaza areas. Initially, Cahokia was similar to any one of a large number of villages in the American Bottom.

Around AD 1050, people began building mounds and modifying the landscape at Cahokia and other places in the area. At the same time, the regional and local population dramatically increased. New styles of pottery decoration and other potentially symbolic items appear in the archeological record. The types and intensity of settlement and other activities that occur at Cahokia are markedly different from those that happened before or elsewhere. Traditionally, this time is seen as marking the transition to Mississippian Culture in the archeological record with many of the ideas, practices, and beliefs first taking form as a coherent whole at Cahokia.

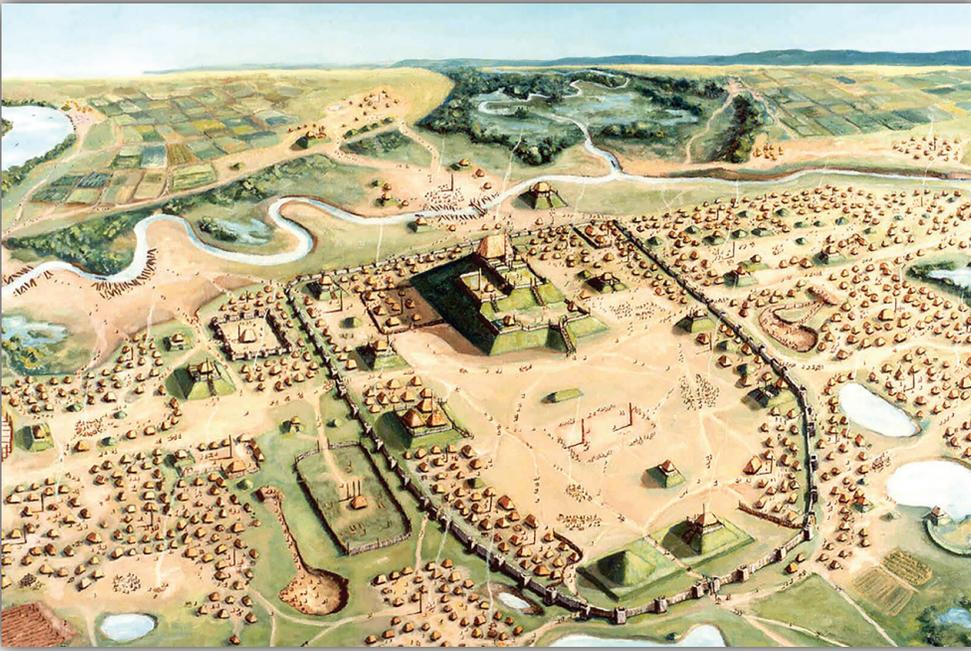


Figure 5: Photo courtesy of Cahokia Mounds State Historic Site, painting by William R. Iseminger.

Consequently, Cahokia may be one of the earliest expressions of Mississippian Culture, and it is also one of the most atypical. The site and its population were much larger than anything seen before or afterwards. Because of the scale of Cahokia, the relationships underlying the social and political organizations of Cahokian society may have differed considerably from those outside of the American Bottom. Although Cahokia is usually seen as an exemplar of Mississippian Culture, the site and the surrounding settlements were anything but typical when compared to the rest of Eastern North America.

One of the first mounds constructed at Cahokia was Mound 72, a burial mound where over 300 individuals were interred. Later, the Grand Plaza and Monks Mound were constructed. Monks Mound and the Grand Plaza were the largest of four mound and plaza areas at the site. Their layout and orientation are thought to embody cosmological or religious principles. The geography of Cahokia may represent one of the earliest and most extensive examples of urban planning in the pre-Columbian United States. In addition to mounds and plazas, people also began building woodhenges, or post circles, during this time. Posts in these circles align to solar events and may have been used as calendars to guide ceremonially important events.

Cahokia flourished for 100 to 150 years following

the onset of Mississippian Culture. Population peaked with as many as 15,000 people living at the site. Perhaps as many as 75,000 people resided along the Mississippi River in close proximity to Cahokia. Growth was probably the result of an increased birth rate and survivorship as well as immigration. People began to rely on corn agriculture more heavily and there may have been a region-wide system for redistributing grain and other foodstuffs.

In the late 12th or early 13th century, another dramatic change occurred with the construction of a wooden palisade around the central core of Cahokia. Population declined precipitously, and monumental construction ceased. Cahokia was abandoned and the site appears to have been unoccupied after the late 14th century. This may indicate the onset of warfare, social unrest, or, at least dramatically poorer social relations among the many segments of Cahokian society.

French missionaries built a chapel on the southwest corner of Monks Mound in 1735 and a community of Illiniwek Indians moved to the mound's first terrace. The Cahokia Illiniwek (Illini), were not directly related to the Mississippian moundbuilders, but migrated to the Mississippi River near modern day St. Louis in the 17th century. The chapel and settlement were abandoned in 1752. Later, another monastery was founded on the site. The order later sold Monks

Mound and the surrounding mounds to Amos Hill who lived at and farmed the area through the middle of the 19th century. The Ramey family bought Hill's property in 1864. The Rameys both protected the site and encouraged responsible investigation. During the mid-19th century, the site was cross-cut by multiple roads. One, the old Collinsville to St. Louis Road (Collinsville Road) was a part of the National Road built between 1811 and 1834 to reach western settlements. The road runs east to west immediately south of Monks Mounds and bisects the site.

ST. LOUIS MOUND GROUP

Approximately 8 miles from Cahokia Mounds, across the Mississippi River in the city of St. Louis, is the site of the St. Louis Mound Group. Little definitive information is known about the St. Louis Mound Group because development and growth of the city destroyed almost all of the earthen architecture and subterranean deposits during the middle and late 19th century. Early maps suggest there may have been as many as 26 discrete earthen mounds at the site. Most were clustered around a large central plaza, but several were built northward along the bluff, terminating with the largest, the "Big Mound", several hundred meters north of the plaza. Archeologists think the site was built and occupied roughly at the same time as Cahokia, but archeological data derived from well-documented contexts using modern techniques are lacking. During the removal of the Big Mound in the 1870s, workers encountered a tomb or burial chamber containing the remains of multiple (the exact number is unknown) individuals adorned in shell beads. Two copper long-nose god maskettes were recovered from other burials within the mound (Figure 6).

These maskettes were worn like earrings and are generally similar to maskettes recovered across the southeastern and midwestern United States. Archeologists believe these were important religious symbols that indicate a widespread belief system tied to Cahokia and the St. Louis region.



Figure 6: Maskette recovered from the Big Mound of St. Louis Mound Group.

EAST ST. LOUIS MOUNDS

The East St. Louis Mounds, located about midway between the St. Louis Mound Group and Cahokia, had perhaps as many as 40 to 50 mounds when it was first encountered by Euro-Americans, but currently there is no above-ground architecture visible. The mounds appeared as parallel rows arranged in a crescent shape. Like the St. Louis Mound Group, most of the East St. Louis mounds were razed in the late 19th century, but because of the low-lying, flood-prone nature of the east side of the river, fill sediments were placed to raise the city and alleviate flooding in the 1870s and 1880s. Consequently, remnants of the mounds and ancient settlement are preserved underneath at least 1 meter of fill.

Owing to the growth of the highway system in the Metro-East area, archeologists from the Illinois State Archaeological Survey (ISAS) have undertaken a considerable amount of excavation in recent years. Salvage work in the 1990s demonstrated that, even within very small corridors, valuable information could be gleaned from the extant remains. Since 2005, ISAS has completed multiple field seasons doing salvage work for the Stan Musial Veterans Memorial Bridge (also known as the New Mississippi River Bridge Project), which opened in 2014. This road realignment cuts through a large portion of the

East St. Louis Mounds. This work refined the chronology and hinted that much more may be buried than archeologists previously assumed. East St. Louis was occupied from about AD 1050 through the early 1200s, and overlapped with the major occupation at Cahokia. Traditionally, Cahokia, East St. Louis, and St. Louis Mound groups are thought of as linked but distinctive “towns,” but because they are so close and were used at the same time some archeologists have begun to think of them as components of a single city or administrative complex. Initial reports from ISAS suggest upwards of 1500 house structures were located within the road right-of-way. Materials from across the Midwest have been found, suggesting a cosmopolitan population. Moreover, while the excavations were large, only a relatively small portion of the site was investigated leaving open the potential that more extensive remains are yet to be found.

At about the same time as at Cahokia, a wall was erected around the central core of the East St. Louis mounds. After a devastating fire in the late 12th century, the intensity of activities and settlement drops off and by the 13th century, the site was largely abandoned.

MITCHELL MOUNDS

The Mitchell Mounds are located approximately 7 miles north of Cahokia. The site originally consisted of 10 mounds around a central plaza with another one to three mounds located to the west. Currently, only a portion of Mound A, the largest mound at the site, is still visible above ground. Excavation in the 1960s found that a large cypress post was placed in the center of the plaza and aerial photographs suggest a palisade may have enclosed the main mound group. The Mitchell Mounds appear to have been occupied late in the Mississippian era with the majority of materials that have been found dating from about AD 1175 to AD 1250. The density of extant material is sparse. Either archeologists have not discovered any potential residential occupation or the Mitchell Mounds may have been purely a special use location. Copper turtle rattles recovered from the mounds during the late 1800s are similar to rattles found and curated at the

Hopewell Culture National Historical Park in Ohio. Together with the presence of copper beads and an incised gorget, these items demonstrate that the people who built and used Mitchell participated in a cultural system and held beliefs with deep historic roots that were widespread in late prehistoric North America.

SUGAR LOAF MOUND

Located south of downtown St. Louis, Sugar Loaf Mound (also called Sugar Loaf West) (Figures 7 & 8) was originally a conical or platform mound built on the bluff overlooking the Mississippi River. Sugar Loaf may be the last remaining Mississippian mound in St. Louis. It was initially reported on by early settlers and used as a survey benchmark for the boundary between St. Louis City and the town of Carondelet. No formal archeological work has been conducted at Sugar Loaf, but archeologists believe the mound is roughly contemporaneous with the major Mississippian mounds site in the region. In the early 20th century, a railroad cut on the east side and quarrying operations on the south dramatically impacted the mound and the local topography. A house was built on top of the mound in 1928.

PULCHER MOUNDS

The Pulcher Mounds (also called Lundsford-Pulcher) is a grouping of mounds located in the southern American Bottom approximately 17 miles south and west of Cahokia Mounds. Early maps show as many as 13 mounds at the site, but only seven are extant. Five mounds constructed in an arc along Fish Lake, an oxbow lake that once was part of the Mississippi River, make up the central core of the site. It is unclear when the others were built and if they are related to the Mississippian occupation or were built by earlier people. Archeological work at Pulcher has a long history, but the work has not been intensive. Pottery recovered from excavation and surface collection suggests that the site was occupied in the early decades of the AD 1000s through AD 1100 or so. A small later occupation restricted to the northern part of the site has also been identified. The site was one of the



Figures 7 & 8: A house was built on top of Sugar Loaf Mound in 1928. The house still stands on the mound today. NPS photos.

most important Mississippian mound-towns in the southern American Bottom and the people likely participated in the activities that happened at Cahokia. One of the most notable features from Pulcher is the existence of archeological features that may indicate Mississippians used ridge fields. Ancient ridges have been found in aerial photographs and in excavation, but clear association with Mississippian agricultural practices has not been well demonstrated.

EMERALD MOUNDS

Emerald Mounds may have consisted of as many as 12 mounds lying about 15 miles east of Cahokia, in an area known as the “Looking Glass Prairie”. The most prominent mound is a large platform about 50 feet tall, with the remaining small dome-shaped structures, two of which are visible above ground (figure 9). Early settlers first recognized the mound and used it as an important landmark in their travels westward. Later, amateur archeologists described the mound as one of the best-preserved and well-proportioned mounds in the state. Emerald has been the subject of recent fieldwork that has helped refine the occupational sequence and its potential functional significance. The site was initially occupied around AD 1000 with the first of many subsequent public buildings and houses built at this time. Later, as Cahokia rose to prominence, the site grew and was potentially aligned with lunar events. Like Mitchell Mounds, typical everyday refuse is sparse perhaps indicating the site was used for

unusual or exceptional purposes. Archeologists interpret many of the buildings as shrines or temples rather than domestic buildings. The entire landform where Emerald was built appears to have been shaped during the site’s occupation and use. An ancient road may also connect Emerald (and adjacent sites) to Cahokia, further indicating the possible scale and sophistication of Mississippian urban planning.

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EXISTING CONDITIONS

ST. LOUIS METROPOLITAN AREA

Earthen monuments, mounds, and the remnants of cities, towns, and villages built by the people today known as Mississippians are found across the southeastern and midwestern U.S. The greatest of these places is Cahokia Mounds. Cahokia is the centerpiece of one of the most densely settled regions in ancient North America. It is located centrally in the United States at the confluence of the Mississippi, Missouri, and Illinois rivers within the greater St. Louis metropolitan area of Missouri and Illinois. Today, the greater metropolitan area is home to 2.8 million people.¹¹

Founded in 1764 by French fur traders, St. Louis grew from a small trading village into a major port on the Mississippi River. Acquired by the United States in the Louisiana Purchase, entrepreneurs sold supplies to westward travelers, and later the city became a major industrial center and home to the largest brewery in the country. Due to the concentration of earthworks in St. Louis, it was nicknamed “Mound City”. Nearly all of these mounds were destroyed during the city’s development.

Across the river, East St. Louis was founded in the late 18th century as a ferry point to St. Louis. Making use of local coal, the city became an industrial and railroad hub that flourished until the mid-20th century, when deindustrialization devastated the once vibrant city. St. Clair County, where East St. Louis is located, is home to about 266,000 people.¹² East St. Louis contains intact, partially intact, and destroyed mound sites.

CAHOKIA MOUNDS

Cahokia Mounds State Historic Site (SHS) is

¹¹ U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010, to July 1, 2014. Data for St. Louis Metropolitan Statistical Area.

¹² Ibid.

located in Collinsville, Illinois, and protects the Cahokia earthworks and grounds. Cahokia Mounds SHS is administered by the Illinois State Historic Preservation Agency. It was designated a National Historic Landmark in 1964 and automatically listed on the National Register of Historic Places when it was established in 1966. Cahokia Mounds has been a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site since 1982.

Cahokia Mounds SHS includes 51 extant mounds, the most prominent of which is Monks Mound. Monks Mound and the central part of the site were purchased by the state of Illinois in 1923 and have been administered by the state ever since. The site gradually grew from the initial 144 acres to 2200 acres. Cahokia Mounds SHS now includes mounds, residential and public areas, and a section of reconstructed palisade that allow visitors to experience the spatial relationships and internal symmetry of Cahokia.

The boundaries of the Cahokia Mounds National Historic Landmark function for the State Historic Site in much the way NPS unit boundaries function for a park - the state can acquire ownership or an ownership interest (such as an easement) in property within the NHL boundary. Approximately 55% of the acreage within the NHL boundaries is owned by the State Historic Site; the balance is held by nonprofit and private owners. Cahokia Mounds SHS falls within two counties, four townships/municipalities, seven fire districts, and eleven police jurisdictions.

Within the NHL boundary are two concentrations of privately owned housing, State Park Place and Fairmount City. The State Historic Site staff estimates that 7,000-10,000 people live within the boundary of the National Historic Landmark.

Running through Cahokia Mounds SHS from east to west, passing just south of Monks Mound, is a road known locally as Collinsville Road, part

of the larger historic National Road (sometimes called the Cumberland Road or the Old Pike), built in the mid-19th century by the federal government. The National Road likely followed already established trails. Today Collinsville Road is a two lane highway.

Cahokia has long held the fascination of researchers and the public alike. The first scientific work at the site occurred in the late 19th century. Much of the research focused on understanding the origins of the earthworks and the nature of the ancient inhabitants. Most recently, archeologists have undertaken sustained efforts to investigate specific histories of landscape modification and past cultural practices of the Mississippians. Long-term work on the palisade identified the chronology, building techniques, and location of at least four sequences of defensive wall construction at the site. Other researchers have investigated sequences of landscape modification within the Grand Plaza, mound construction techniques, ceremonialism associated with mounds, and everyday life at Cahokia, among other things.

Mounds and features at Cahokia Mounds SHS are in good condition, are open to the public, and are interpreted for public education and enjoyment. There have been slumping issues at Monk Mounds in the past; repairs were undertaken in 2007. There is also ongoing research and excavation occurring at the site.

ST. LOUIS MOUND GROUP

The site of the St. Louis Mound Group is located between the Mississippi River and the I-70 corridor north of Jefferson National Expansion Memorial and south of the Stan Musial Veterans Memorial Bridge approach. Growth of the City of St. Louis during the 19th century destroyed the mounds, and no above ground remains are visible.

The location of the St. Louis Mound Group is an urban and industrial setting cut by multiple roads and highways. Historical research overlaying early maps onto the present street grid has been used to pinpoint precisely where the mounds may have been located. Subsequent archeological survey

and testing done before the construction of the Stan Musial Veterans Memorial Bridge failed to find any prehistoric archeological materials in the highway right-of-way. A small plaque and memorial plaza commemorates the Big Mound's location at the foot of the bridge (figure 9). The marker and plaza are accessible as part of the Great Rivers Greenway - Mississippi Greenway bicycle trail. This is the only on-site interpretation or commemoration of the mounds that were once here.

EAST ST. LOUIS MOUNDS

All surface expressions of the mounds and features at the East. St. Louis Mounds have been destroyed by development, though there is an abundance of subsurface archeological materials. Like the St. Louis Mound Group, the East St. Louis Mounds are located in an urban, industrial setting. Since the middle 1960s, highway construction, initially I-64/US40 and mostly recently I-70, has impacted large portions of the former mound site. Investigations were undertaken by the Illinois State Archaeological Survey on behalf of the Illinois Department of Transportation and the Federal Highways Administration as part of compliance for the Stan Musial Veterans Memorial Bridge approach in the late 2000s. ISAS crews excavated about 35 acres of an estimated 488 total acres, or 7.5 percent of



Figure 9: Interpretive sign and memorial plaza near the site of the Big Mound of the St. Louis Mound Group. NPS photo.



Figure 10, Left: Partial view of East St. Louis Mounds site. NPS photo.

Figure 11, Right: Mound A at Mitchell Mounds. NPS photo.

the site.¹¹ They discovered more than 1,500 house remains, a finding that is unparalleled in the United States. The analysis of their excavations is currently ongoing. There is no interpretation or other recognition on the site for the mounds that were once here (figure 10).

During the course of construction work, the Feature 2000 preservation area was avoided and preserved. This location contains the remains of a Mississippian mound and is buried under five to ten feet of earth. The area is preserved within the highway right-of-way. No other mounds or mound remnants have been identified in the highway right-of-way, but outside of the highway work, other potential mounds have been identified. The site is not currently listed on the NRHP. The Archaeological Conservancy and the Powell Archaeological Research Conservancy owns locations that have potential mounds outside of the core East St. Louis Mound Group area.

MITCHELL MOUNDS

Mitchell Mounds is located on a privately owned lumber yard and transportation easement in a

rural/industrial setting near a former channel of the Mississippi River north of Cahokia in Madison County, Illinois. The site was listed on the National Register of Historic Places in 1978. Though the mounds are in poor condition and the site has been partially destroyed, the remains of Mitchell Mounds are interesting to researchers because of the relatively short span of occupation and the lack of evidence of residential occupation. Little is known about the site, and little systematic work has been done. Much of the investigation of this mound group was undertaken in preparation for the construction of I-270 and prior to the subsequent destruction of Mound C during the construction of the present lumber yard. Of the 10 mounds that made up this mound group, the only visible survivor is Mound A. There is no public access or interpretation at this site, though Mound A is visible from the public road (figure 11).

SUGAR LOAF MOUND

Sugar Loaf Mound (also called Sugar Loaf West to distinguish it from another Sugar Loaf Mound in the area) is the last remaining Mississippian mound in St. Louis. Located on a bluff overlooking the Mississippi River to the east and I-55 to the west, the mound is located on a dead end road in an urban residential setting. In the early 20th century, a railroad cut on the east side and quarrying operations on the south side dramatically impacted the mound and the local topography. A house was built on top of the

¹¹ Camille Phillips, "Update: The Archaeological Discoveries Made Possible By The New Mississippi River Bridge" St. Louis Public Radio, February 5, 2014. <http://news.stlpublicradio.org/post/update-archaeological-discoveries-made-possible-new-mississippi-river-bridge>, accessed June 30, 2016.

mound in 1928. Today, the home is vacant. The mound is considered to be in fair condition. No substantive archeological investigations have been done at the site. Sugar Loaf Mound was listed on the National Register in 1983 at the state level of significance.

The Sugar Loaf Mound property is owned by the Osage Nation headquartered in Pawhuska, Oklahoma. When the house was put up for sale in 2009, the Osage Nation acquired the property. An official from the Osage Nation, speaking to the press in 2013, discussed the tribe's intention to remove the house, reconstruct the impacted portion of the mound, and build an education center nearby. The reported noted that because the Osage consider the mound to be sacred, it would not become an archeological investigation.¹¹ The site is not open to the public, though it is visible from the public road. There is presently no interpretation at the site. The annual Osage heritage site tour in July 2015 visited Sugar Loaf Mound and other St. Louis area mounds. Adjacent properties are owned by the Great Rivers Greenway park district and the Missouri Department of Transportation.

PULCHER MOUNDS

The Pulcher Mounds are located largely on privately owned farmland near Dupou, Illinois. The majority of which is owned by a single landowner interested in preservation of the extant resources. The mounds overlook a relict Mississippi River channel. Houses and farm buildings encroach on the southern end of the site. The north end of the site is planted in row crops. Also known as the Lundsford-Pulcher archeological site, it was listed in the NRHP in 1973 at the national level of significance. The mounds at Pulcher are believed to have good integrity and, with the exception of Cahokia, are the most visible of the locations considered in this study. Several of the mounds are easily visible from the public road, but they are

¹¹ Doug Moore, "Last Native American mound in St. Louis is visited by tribe that purchased site" St. Louis Post-Dispatch, March 19, 2013. http://www.stltoday.com/news/local/metro/last-native-american-mound-in-st-louis-is-visited-by/article_c1e2c579-9709-52da-af69-ed82b0906571.html

on private property and there is no interpretation on site (figure 12).

EMERALD MOUNDS

The extant mounds at the Emerald Mounds site are owned by the State of Illinois and administered through the Illinois State Historic Preservation Agency. The site is closed to visitors. The surrounding archeological site is owned by private individuals. The site is in a rural setting and the non-state owned parcels are farmed. Over time, the mounds have been reduced in size and shape by agricultural activities and erosion. The landscape is generally stable and the mounds and associated archeological deposits are thought to have good integrity (figure 13). Emerald Mounds are not open to the public. Archeology at the site has been done by two groups. ISAS has undertaken salvage work in 1998 and 2011. University researchers from the University of Illinois at Urbana-Champaign and Indiana University, Bloomington, have completed 3 field seasons. The Emerald Mounds and village site were listed in the NRHP at the national level of significance in 1971.

GROUPS INVOLVED IN PRESERVATION AND INTERPRETATION

Archaeological Conservancy: The Archaeological Conservancy is the only national, nonprofit organization that identifies, acquires, and preserves the most significant archaeological sites in the United States. The Archaeological Conservancy owns property in East St. Louis.

Cahokia Mounds Museum Society: The Cahokia Mounds Museum Society is a not-for-profit organization whose mission is to promote for the public benefit the educational and scientific aspects of the Cahokia Mounds State Historic Site (SHS) and associated archeological sphere, and to support activities that are calculated to preserve, develop or interpret Cahokia Mounds.

HeartLands Conservancy: HeartLands Conservancy is a nonprofit organization that works in partnership with landowners and

community leaders to permanently protect lands in Southwestern Illinois, including the farms, forests, wetlands, wildlife habitat, open spaces, and scenic vistas. Their mission is to provide leadership and solutions to sustain and enrich the diverse environmental resources of Southwestern Illinois through conservation of open space and building greener communities.

HeartLands Conservancy sponsors the Mounds Heritage Trail, a multi-use trail that connects Missouri and Illinois and interprets the cultures and communities of the area.

Illinois Historic Preservation Agency (IHPA): The IHPA is state agency that operates dozens of historic sites, museums and monuments where visitors can learn the stories of Illinois. They own and operate Cahokia Mounds State Historic Site. Cahokia Mounds SHS has been managed as a public park since 1925.

Osage Tribe: The Osage Tribe is headquartered in Pawhuska, Oklahoma, and has an active interest in the Mississippian mounds of the greater St. Louis area. The tribe owns Sugar Loaf Mound in St. Louis. The Osage tribal members did not build Sugar Loaf Mound, but based on oral history, ethnology, and linguistic similarity, the tribe believes it had mound builder ancestors in the American Bottom. The tribe is considering creating an interpretive center at or near the site.

Powell Archaeological Research Center (PARC): PARC is an organization dedicated to saving archaeological data for future study. It was formed by individuals concerned about the destruction of archaeological sites by ongoing development in the metropolitan St. Louis area. Members of PARC volunteer to salvage archaeological data from sites being destroyed in the American Bottom.

PARC is headquartered in the Fingerhut House, a house and adjacent property within the NHL boundaries at Cahokia Mounds. PARC facilitates the research program for the Museum Society. PARC also owns several parcels in East St. Louis, and is actively acquiring properties from other non-profit research organizations.



Figure 12, Top: Partial view of Pulcher Mounds. NPS photo.

Figure 13, Bottom: Emerald Mounds in the 1970s. Because of vegetation and growth, the mound is now difficult to see. Photo courtesy of Illinois Historic Preservation Agency.



Figure 14: The reconstruction of the exterior walls on display at the Cahokia Mounds State Historic Park. NPS photo.

STUDY CRITERIA & ANALYSIS

As discussed in the introduction, there are criteria set forth in law and policy that the National Park Service applies in determining whether to recommend an area as a potential new unit of the national park system in a special resource study. A reconnaissance survey undertakes only a preliminary analysis of the criteria for inclusion - this report's conclusions will summarize the potential or likelihood that the resources would meet the established criteria. The criteria are national significance, suitability, feasibility, and need for NPS management. (See Appendix B for the full text of the Criteria for Inclusion from NPS Management Policies 2006.)

NATIONAL SIGNIFICANCE

An area is considered nationally significant if it is an outstanding example of a particular type of resource, possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage, has superlative opportunities for public enjoyment or for scientific study, and retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

In applying these criteria to cultural resources, a cultural resource is considered "nationally

significant," if it qualified for designation as a National Historic Landmark (NHL). NHLs are cultural properties designated by the Secretary of the Interior as possessing national significance under at least one of six criteria, and are acknowledged as among the nation's most significant historic places. Comparative analysis is used to determine relative significance. They must also retain a high degree of historic integrity, which is composed of key characteristics of location, design, setting, materials, workmanship, feeling, and association.

NHL Criterion 6 was developed specifically to recognize archeological properties, all of which must be evaluated under this criterion. Properties meet this criterion when they "*have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.*" Justification of significance under this criterion must detail what nationally significant information is the site likely to yield and whether the information already produced is nationally important.

The significance of the Cahokia Mounds State Historic Site is definitively known, as it has already been designated a National Historic Landmark. Moreover, it is recognized for its global importance as a designated World Heritage Site. World Heritage Sites are cultural or natural sites recognized as having outstanding universal value and meeting certain criteria by the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

Researchers predominantly believe that Cahokia and surrounding sites are a system, and outlying sites functioned much like suburbs or small towns around a major city center. The nature of the relationships between these areas is still the subject of investigation and inquiry. It is unlikely, however, that the larger system of sites could be conceptualized as part of the existing Cahokia NHL, given the wide geographic area over which they are spread and the distinctive site features and occupation periods of each.

It is unlikely that many of the surrounding sites could be considered NHLs in their own right at this time because of the need for further archaeological research and because of their similarities to Cahokia. The comparative analysis required in NHL documentation would likely find that Mississippian occupation of the greater St. Louis area is already adequately represented among NHLs by Cahokia Mounds unless a resource is different enough in its ability to yield nationally important archeological information. If, for example, East St. Louis Mound Group produces nationally important information about Mississippian habitation and the larger Cahokia area that Cahokia itself could not yield, it might potentially be considered nationally significant.

Each of the sites considered in this reconnaissance survey is considered individually for national significance or potential national significance below.

Cahokia Mounds: The Cahokia Mounds, the resources of which are included within Cahokia Mounds SHS, were designated a National Historic Landmark in 1964. Cahokia Mounds SHS's resources meet the World Heritage site

criterion iii, for a site “to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared” and criterion iv, for a site “to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.” UNESCO notes that “Cahokia Mounds is the largest pre-Columbian archaeological site north of Mexico; it is also the earliest of the large Mississippian settlements. It is the pre-eminent example of a cultural, religious, and economic center of the prehistoric Mississippian cultural tradition” and that “Cahokia graphically demonstrates the existence of a pre-urban society in which a powerful political and economic hierarchy was responsible for the organization of labor, communal agriculture, and trade.”¹¹ Cahokia Mounds SHS's resources are nationally and globally, significant.

St. Louis Mound Group: All the mounds in the St. Louis Mound Group, including the Big Mound, have been destroyed. Recent archeological investigations have confirmed the assessment that the Big Mound was completely removed in 1870 and that “no evidence of prehistoric activity remains in the vicinity.”¹² If any potential material for archeological investigation remains of the St. Louis Mound Group, it is likely to be inaccessible for many years beneath buildings, I-70, and the Stan Musial Veterans Memorial Bridge approach. The site of Big Mound is commemorated by a plaque and memorial plaza. Other areas of the St. Louis Mound Group have the potential for some remaining prehistoric material, but it is highly unlikely that the site can be reasonably expected to yield data affecting theories, concepts, and

ideas to a major degree. The St. Louis Mound Group is highly unlikely to meet the NHL criteria for national significance because there is little

11 UNESCO World Heritage Centre, “Cahokia Mounds State Historic Site,” <http://whc.unesco.org/en/list/198> (accessed August 19, 2015).

12 Missouri Department of Transportation: Environmental Studies and Historic Preservation, “The St. Louis Mound Group (23SL4) and Big Mound (23SL3)” 2013. <http://www.modot.org/ehp/sites/Big-Mound.htm> (accessed August 19, 2015).

integrity or opportunity for scientific study.

East St. Louis: While no above-ground features remain of the East St. Louis Mound Group, subsurface remains have been studied extensively in recent years as part of the Stan Musial Veterans Memorial Bridge project. The discovery of more than 1500 house remains is unparalleled. The scale of the domestic occupation at East St. Louis far and away exceeds anything known in North America. Consequently, researchers believe that this place may represent something qualitatively different from any other previous or contemporary settlements. Combined with the close proximity of other major settlements, archeologists believe that the Cahokian people created a large politically integrated community that may have been a city. As a result, the remains from East St. Louis are fundamental for understanding how cities develop globally as well as being an example of a potentially distinct form of North American urbanism.

While excavation has been done at the East St. Louis Mound Group, the vast majority has been since 2008 in the specific area of the Stan Musial Veterans Memorial Bridge approach. The results of the excavations are still being processed and published. The site appears to be eligible for inclusion on the National Register of Historic Places, but it has not been listed in the NRHP. Given the limited amount of work that has been completed to date, insufficient analysis exists at this time to suggest it would be likely to be found to meet NHL criteria.

Mitchell Mounds: Little surface expression remains of the once impressive Mitchell Mound site. During the late 19th and early 20th centuries, the mounds were largely levelled, leaving small remnants where earthen monuments once stood. Archeological investigation has been minimal and the degree of integrity of the archeological remains, beyond the mounds, is not known. On their own, Mitchell Mounds would probably not have national significance since they were similar to a number of contemporaneous mound sites in the region.

Sugar Loaf (West): Sugar Loaf is the only mound

within the city limits of St. Louis with visible surface remains. However, no excavation has been done at the site. While important because it is the only example of a mound in the city, it was probably similar to many mounds in the region and consequently is likely significant on a local or regional level.

Pulcher Mounds: The archeology from early excavations at the Pulcher Mounds was vital for defining the Mississippian sequence. Since then, little systematic work has been done there. Because of its inferred temporal position and geographic location, data from Pulcher may be fundamental for understanding how, when, and who built Cahokia. The Pulcher Mounds are one of most southerly mound complexes in the American Bottom. It is listed in the NRHP at the national level of significance, but insufficient evidence exists at this time to suggest if it would meet NHL criteria.

Emerald Mounds: The Emerald Mounds and village have been studied off and on for nearly a century. Modern work has focused on defining the chronology and nature of the activities at the site. Emerald Mounds may be associated with astronomical events and serve as a marker along an ancient transportation corridor from the east. Although there has been some recent work, more is needed to better understand the extent and age of the site. Emerald Mounds is listed in the NRHP at the national level of significance, but insufficient evidence exists at this time to suggest if it would meet NHL criteria.

NATIONAL SIGNIFICANCE CONCLUSION

The mounds and archeological deposits at Cahokia Mounds SHS definitively meet the national significance criterion. Pulcher Mounds and Emerald Mounds are listed in the NRHP at the national level of significance – further investigation in a special resource study is warranted to determine if they meet NHL criteria. The other outlying sites considered in this survey either lack sufficient documentation, have few extant resources, or both, meaning it is unlikely they would be found to meet the criteria for national significance without additional

archeological investigation and scholarship.

SUITABILITY

To be suitable for inclusion in the national park system, an area must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the national park system or is not comparably represented and protected for public enjoyment by another land-managing entity. Adequacy of representation is determined on a case-by-case basis by comparing the proposed area to other units in the national park system for differences or similarities in the character, quality, quantity, or combination of resources, and opportunities for public enjoyment.

This reconnaissance survey provides a preliminary evaluation of the study area's suitability for inclusion in the national park system by a comparative analysis of similarly themed sites managed by the NPS and others.

There is no single National Park Unit exclusively dedicated to the preservation and interpretation of Mississippian Culture. The national park system includes and interprets several important Mississippian sites. Notable examples are:

- Grand Village of the Natchez, aka the Fatherland site (Natchez, Mississippi): Grand Village of the Natchez is part of Natchez Trace Parkway and National Scenic Trail. The Grand Village of the Natchez Indians, designated a National Historic Landmark, is maintained as a park by the Mississippi Department of Archives and History. The museum exhibits artifacts excavated from the site and sponsors public education events and activities. This is a late Mississippian and early historic site with three mounds.
- Ocmulgee and the Lamar Village (Macon, Georgia): Ocmulgee National Monument preserves these sites and interprets elements of Early Mississippian and Late Mississippian Culture. Ocmulgee National Monument has 17,000 years of continuous habitation, including a period from around 900 AD to

1600 AD, when newcomers known as the Mississippians came to Middle Georgia building mounds for their elite and thriving until European diseases brought the culture to an end. The people after 1600 became known as the Muscogee (Creek) who were removed from Georgia to Oklahoma by the early 1800s.

There are multiple Mississippian mounds sites preserved by state governments and other entities that protect them and make them available for public enjoyment. Notable examples are:

- Dickson Mounds (Lewistown, Illinois): The Dickson Mounds Museum is operated by the State of Illinois as a branch of the Illinois State Museum. The Dickson Mounds are listed on the National Register of Historic Places. The Dickson Mounds Museum, located at a Middle Mississippian settlement site and mound complex, is situated on a 162-acre site and features interpretive exhibits; hands-on activities; archaeological sites; and special events in a rural setting.
- Kincaid Mounds (Brockport, Illinois): Kincaid Mounds State Historic Site preserves a number of Middle Mississippian earthen mounds on 105 acres. Kincaid Mounds is a National Historic Landmark. The Kincaid site likely served as a trade link between native settlements in the Cumberland-Tennessee river valleys and the metropolis at Cahokia. The mounds still exist and a constructed overlook platform and interpretive panels tell the story of the site.
- Angel Mounds (Evansville, Indiana): Angel Mounds State Historic Site protects and interprets the approximately 100 acre site of a Mississippian town within a site of about 600 acres. Angel Mounds is a National Historic Landmark. The site includes an interpretive center, recreations of the Mississippian buildings and a working reconstruction of the 1939 WPA archaeology laboratory. The 500-acre non-archaeological portion of the site contains a nature preserve with hiking and biking trails.

- **Aztalan (Aztalan, Wisconsin):** Aztalan State Park encompasses 172 acres and preserves the site of a Middle Mississippian village. Aztalan is a National Historic Landmark. The people who settled Aztalan built large, flat-topped pyramidal mounds and a stockade around their village. Portions of the stockade and two mounds have been reconstructed in the park and a locally-run museum just north of the site interprets Aztalan and includes a mound on its grounds.
- **Moundville Archeological Site (Moundville, Alabama):** The Moundville Archaeological Park preserves the town site of 29 platform mounds around a rectangular plaza and is administered by the University of Alabama Museums. The site is 185 acres. Moundville Archeological Site is a National Historic Landmark. The Jones Archaeological Museum at Moundville displays artifacts and murals to interpret the site.

The National Park Service interprets and preserves remains from other important cultures in North America. Hopewell Culture, preserved and interpreted at Hopewell Culture National Historical Park, was a predecessor to Mississippian Culture. Hopewell people are most widely known for their highly-stylized, zoomorphic artwork and their earthen monuments. Hopewell Culture National Historical Park is located in Chillicothe, OH (figure 15).

Effigy Mounds National Monument, located in Harper's Ferry, Iowa, preserves and interprets remains from the Effigy Mound Culture. Effigy Mound people lived from 600 AD to 1200 AD along the banks of the Mississippi River east to Lake Michigan in what is now Iowa, Wisconsin, Minnesota, and Illinois. Effigy Mound Culture is most widely known for the construction of human- and animal- shaped earthen mounds and conical burial mounds. Effigy Mound Culture is an example of the Late Woodland adaptation where people were semi-sedentary horticulturalists who relied primarily on hunting, fishing, and gardening. Effigy mounds may have served as mythological figures constructed of

earth or as territorial markers between different ethnic or social groups.

Poverty Point National Monument in Epps, Louisiana, protects and interprets the remains of the second largest ceremonial mound in North America, built about 3500 years ago. The earthworks at Poverty Point are a national monument and a unit of the national park system, but are administered and maintained by the state of Louisiana as Poverty Point State Historic Site. Poverty Point is also inscribed on the UNESCO World Heritage List. Both Hopewell Culture National Historical Park and Poverty Point State Historic Site interpret and preserve particular cultural expressions that represent some of the most complex, coherent, and notable cultures in North America.

SUITABILITY CONCLUSION

Cahokia Mounds, protected and interpreted as an Illinois state historic site, are unmatched in scale and importance by any Mississippian sites protected by national park units. Its importance is recognized by UNESCO and it is an NHL. Absent from the national park system is a place solely dedicated to the interpretation and preservation of Mississippian Culture. Though many sites outside the national park system preserve and interpret nationally significant examples of Mississippian settlements and mounds, it is possible that Cahokia would meet the suitability criteria for inclusion in the national park system in a full analysis because of its global importance, both as an exemplar of Mississippian Culture and as an exceptional example for the study of and memorializing of Native American culture.

Of the remaining sites, East St. Louis, Sugar Loaf Mound, Mitchell Mounds, Emerald Mounds, and Pulcher Mounds present the opportunity for continued study of the archeological record. The St. Louis Mound Group has very limited potential for future study. Public enjoyment opportunities are likewise limited at East St. Louis and the St. Louis Mound Group. The remains at Mitchell Mounds, Pulcher Mounds, and Sugar Loaf are similar to those Mississippian sites protected and interpreted by state governments described above.



Figure 15: Fog over Mound City at the Hopewell Culture National Historic Park in Chillicothe, Ohio. NPS photo.

Consequently, East St. Louis, St. Louis Mounds, Sugar Loaf, Mitchell Mounds, Emerald Mounds and Pulcher Mounds are not likely to be found to be suitable for inclusion in the national park system individually. Further analysis in a special resource study could consider Emerald Mounds and Pulcher Mounds jointly with Cahokia Mounds.

FEASIBILITY

To be feasible as a new unit of the national park system, an area must be of sufficient size and appropriate configuration to ensure long-term protection of the resources and to accommodate public use. It must have potential for efficient administration at a reasonable cost. Important feasibility factors include landownership, acquisition costs, staff and development requirements, access, existing degradation or threats to the resources, the socioeconomic impacts of designation, and public support. The evaluation also considers the ability of the NPS to undertake new management responsibilities in light of current and projected constraints on funding and personnel.

The preliminary assessment of feasibility includes potential for public enjoyment and the potential for efficient administration at a reasonable cost. Because the reconnaissance survey does not develop specific proposals for management, feasibility can only be discussed generally. The landownership patterns, planned future use of the study area, and contamination issues are described above in Existing Conditions. Because the reconnaissance survey does not include a public comment process, potential levels of public support cannot be assessed. However, NPS has received letters of support from local municipalities, nonprofit groups, and members of the public.

Cahokia Mounds SHS has been managed as a public park since 1925. Visitation at its highest point in the early 1990s was over 350,000 people per year after the new visitor center was built. The visitor center provides services for the public and administrative space, and maintenance facilities are present on site. Trails and interpretive signage

are in place to provide for public enjoyment. The Cahokia Mounds site could be efficiently administered as a park unit, as has been well demonstrated by the State of Illinois. Currently, the state and affiliated friends groups are actively acquiring residential lots in the adjacent subdivisions that fall within the boundaries of the NHL as they become available, expanding the protected acreage of the nationally significant site. As these are not exponential increases in acreage, it is unlikely that continued addition of these residential lots would impede efficient administration of the site. Operating costs would likely be comparable to NPS units of similar size and resources, within the realm of reasonable cost. In spite of the funding challenges facing the NPS as a whole, it seems likely that Cahokia Mounds SHS would be found to meet the efficient administration and reasonable cost thresholds of the feasibility criterion in a special resource study.

Because the other sites considered in this reconnaissance survey are unlikely to be found to be nationally significant or suitable additions to the system, their individual feasibility will not be analyzed here. An NPS unit configuration that grouped these spatially dispersed outlying sites with Cahokia Mounds SHS would be unlikely to be found efficient to administer. The outlying sites lie between 6 and 19 miles (straight line distance) from Cahokia. Other National Park units (Jefferson National Expansion Memorial and Ulysses S. Grant National Historic Site) are closer to these outliers than Cahokia Mounds SHS. There are no extant facilities that would accommodate either visitors or maintenance at these outlying sites, and thus there would be more substantial development costs than at Cahokia Mounds SHS, which has existing facilities. Management as a single entity by NPS would require large expenditures of resources to secure the archeological resources, maintain the grounds, and provide visitor experiences. Consequently, NPS would likely not be able to efficiently manage these resources. In a configuration where these outlying units are not owned by NPS, multiple landowners, physical access issues, and lack of existing visitor infrastructure would make providing a cohesive visitor experience for public enjoyment challenging. Exploring the extent

of these challenges falls outside the scope of a reconnaissance survey.

FEASIBILITY CONCLUSION

Cahokia Mounds SHS has been demonstrated to be capable of efficient administration as a public park. Further study would be needed to consider Pulcher Mounds and Emerald Mounds. It is unlikely that other sites and resources would meet this criterion.

DIRECT NPS MANAGEMENT

The final criterion for potential new park units, need for direct NPS management, will be discussed briefly. To be recommended as a unit of the national park system, an area must require direct NPS management, and NPS management must be clearly superior to other possible management options.

Cahokia Mounds State Historic Site is already protected and managed for resource protection and public enjoyment by the Illinois Historic Preservation Agency. So long as the state of Illinois effectively manages, protects, and interprets the site, Cahokia Mounds may not demonstrate a need for direct NPS management. However, the State of Illinois has experienced significant financial constraints over the last decade, resulting in a substantial reduction in the amount of funding supplied to support the park resulting in threats to park infrastructure and operations. Both funding and staffing have declined to approximately 50% of their year 2000 levels, and this has put resource preservation and interpretation in a holding pattern that is increasingly difficult to sustain with diminishing resources. This has been exacerbated by the current budget impasse in Illinois; workers are paid by court order and no funding is available for facilities or repairs, though resources appear to be protected and stable in the short term. When considering these long term trends combined with the recent uncertainty of continued support at the state level, a different management model may be needed if resource conditions or visitor access deteriorates. In that case, direct NPS management may to be found in a full study to both needed and

clearly superior. If a full study is authorized in the future, then NPS would be able to develop a more concrete finding for this criterion.

For the outlying sites, consideration of direct NPS management is not warranted since they are not likely to meet the criteria of significance, suitability, and feasibility for inclusion in the park system. The outlying sites do have needs for preservation and interpretation, but the management of these sites is best undertaken by state or local organizations. Options for NPS involvement and technical assistance are described in the recommendations below.

DIRECT NPS MANAGEMENT CONCLUSION

Cahokia Mounds SHS has displayed worrisome trends in management conditions, and may be found to have a need for direct NPS management in a full study, depending on the future funding of the site. Further study would be needed to consider Pulcher Mounds and Emerald Mounds. It is unlikely that other sites and resources would meet this criterion.

OTHER POTENTIAL NPS DESIGNATIONS AND PROGRAMS

Affiliated Area: Affiliated areas are nationally significant areas not owned or administered by the NPS, but that are recognized for the significance of their resources and affirmed to be managed in accordance with the standards that apply to NPS units. Affiliated areas have titles like those of national park units and have a formal cooperative relationship with the NPS. There are 25 officially designated affiliated areas, including Jamestown National Historic Site in Virginia and Fallen Timbers Battlefield and Fort Miamis National Historic Site in Ohio. Some of these have been recognized by Acts of Congress, others have been designated national historic sites by the Secretary of the Interior under the authority of the Historic Sites Act of 1935.

To be eligible for affiliated area status, an area's resources must (1) meet the same standards for significance and suitability that apply to units of the national park system; (2) require some special

recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the Service and the nonfederal management entity.

As documented in this reconnaissance survey, Cahokia Mounds SHS meets the criteria for national significance and would likely be found to meet the criteria for suitability in a full special resource study. Though already an NHL, state historic site, and a World Heritage Site, advocates of Cahokia Mounds SHS have expressed a desire for further recognition as a national historic site. Should the State of Illinois be willing to enter a formal agreement with the NPS to document roles and responsibilities for affiliation, a full special resource study may find the criteria for Cahokia Mounds SHS to be eligible as an affiliated area would be met. It is important to note that this designation would not alleviate the conditions at the park which are most concerning to NPS, however, as affiliated area designation does not provide funding for park management. This may impact the state's ability to address criteria 3 and 4 above.

National Heritage Area: National heritage areas are areas designated by Congress as having a nationally important, distinctive assemblage of resources that is best managed for conservation, recreation, education, and continued use through partnerships among public and private entities at the local or regional level. Each national heritage area is governed by separate authorizing legislation and operates under provisions unique to its resources and desired goals. For an area to be considered for designation, certain key elements must be present. First and foremost, the landscape must have nationally distinctive natural, cultural, historic, and scenic resources that, when linked together, tell a unique story about our country. The areas are the management responsibility of federal commissions, nonprofit groups, universities, state agencies, or municipal authorities, depending on their enabling legislation - NPS involvement

is always advisory in nature. This cooperative approach allows national heritage areas to achieve both conservation and economic growth in ways that do not compromise local land use controls. There are 49 national heritage areas across the country. Although they are not NPS units, the NPS provides technical assistance, planning, and limited financial assistance in partnership with national heritage areas around the country.

The national heritage area concept may fit the resources of the larger American Bottom and the goals of the entities invested in the preservation and promotion of the Mississippian resources present there on a regional scale. The partnership approach creates the opportunity for a diverse range of constituents to come together to voice a range of visions and perspectives. Partners collaborate to shape a plan and implement a strategy that focuses on the distinct qualities that make their region special. Because coordinating entities and partners lead the way in national heritage areas, it is strongly recommended that potential coordinating entities take a lead role in conducting a heritage area study if one is desired.

National Park Service Technical Assistance Already Available: The outreach of the National Park Service extends well beyond management of park units. The agency also manages programs which support local communities to engage in resource preservation, healthy recreation, and heritage tourism. Related areas where the NPS serves in a role as cooperator and partner for supporting resource conservation preserve important segments of the nation's heritage. These programs offer a number of grants, financial incentives, technical assistance, and/or recognition that supports citizens and communities as they engage in conservation, preservation and recreation projects.

Because Cahokia Mounds SHS is both a national historic landmark and a world heritage site, it has access to **National Historic Landmark and World Heritage Site technical assistance** from the NHL Program and the Office of International Affairs. The National Park Service provides technical preservation advice to owners of national historic landmarks. Questions regarding

preservation issues are routinely answered by phone, letters, or during on-site visits by NPS staff. The NPS publishes and distributes information on a variety of historical subjects. Many of these NPS history publications are available online. From time to time, the NPS contacts NHL owners about the condition of their properties and may ask for permission to visit. The NPS is responsible by law for monitoring the condition of NHLs. Information on the condition of landmarks and potential threats to them is aggregated in an update published in the NHL database. This information is a valuable tool for stewards to use in fundraising and influencing policy affecting their NHLs. The information is also used by the NPS to plan its assistance programs, and helps in grant-making decisions. As funding permits, a limited number of NHLs may be selected to receive in-depth site inspections funded and coordinated by the NPS regional offices. If funding permits, information derived from the in-depth inspection may be compiled in a building condition assessment report which may be made available to owners, preservation organizations, and interested public and private groups. The Office of International Affairs provides a conduit to World Heritage sites in the U.S. for access to guidance documents from the UNESCO World Heritage Centre that is tailored to World Heritage sites, including on specialized topics such as archeology. The office provides referrals to international experts as needed, and also consults with World Heritage sites on resource condition and needs in a more structured context as part of the periodic reporting on the status of US World Heritage sites, which takes place on a six-year cycle as required by the World Heritage Convention.

Local efforts outside Cahokia Mounds SHS have been both site specific, like those of PARC and the Archaeological Conservancy, and regional in scope, like those of the HeartLands Conservancy's Mounds Heritage Trail. Efforts have wisely built on the greater visibility of these resources after the Stan Musial Veterans Memorial Bridge project. Should local and regional entities pursue further trail development the NPS **Rivers and Trails Conservation Assistance (RTCA)** program

can help. RTCA supports community-led natural resource conservation and outdoor recreation projects across the nation. The RTCA network of conservation and recreation planning professionals partners with community groups, nonprofits, tribes, and state and local governments to design trails and parks, conserve and improve access to rivers, protect special places, and create recreation opportunities. National Park Service staff provide free, on-location facilitation and planning expertise, drawing from project experiences across the country and adapting best practices to a community's specific needs. Applications for RTCA technical assistance are accepted annually.

National Park Service Grant Opportunities:

The Land and Water Conservation Fund (LWCF) helps to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States. The State Conservation Assistance Grant Program of the LWCF provides matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities. The fund has provided 40,400 grants to state and local governments over 40 years. The LWCF Act requires that all property acquired or developed with LWCF assistance be maintained perpetually in public recreation use. This ensures that tens of thousands of outdoor sites - at every level of government and in almost every county of the United States - are recognized as continuing legacies that must remain available, not just for today's citizens but for all future generations of Americans. Some of the outlying archeological sites considered in this reconnaissance survey may be an appropriate fit with LWCF grants.

In Illinois, the Illinois Department of Natural Resources (DNR) administers two grants-in-aid programs to assist eligible, local units of government acquire and/or develop public outdoor recreation areas: the LWCF program, and the state's Open Space Lands Acquisition and Development grant program. In Missouri, the grant program is administered by Missouri State Parks.



Figure 16: An illustration of Monks Mound showing it with fanciful proportions. From "Records of the American Races in the Mississippi Valley" by William McAdams (1887). Public Domain.

CONCLUSIONS

The National Park Service study team found that there is excellent preservation, research, interpretive, and promotional work being done by the Illinois Historic Preservation Agency, Cahokia Museum Society, HeartLands Conservancy, PARC, The Archaeological Conservancy, and many other partners, private owners, and volunteers. The NPS recognizes the importance of the continued interpretation and stewardship provided by state, regional, local, nonprofit, and private entities in preserving, researching, and interpreting these important resources. It is recommended that state, regional, and local entities continue to seek assistance from the NPS through available technical assistance and grant programs.

At Cahokia Mounds State Historic Site, the nationally and globally significant resources are currently protected, interpreted, and open to visitors, but their long-term situation seems unsettled. Governor Rauner and Senator Durbin have expressed support for an NPS presence at Cahokia, and the resources of the state historic site are of such global significance that they should not be allowed to deteriorate further. Consequently, the NPS recommends a full special resource study be authorized, to more completely evaluate the criteria for inclusion in the national park system, to develop management scenarios for the site, and engage the public on potential NPS management of the site. The NPS further recommends that if a special resource study is authorized, it should also include a full analysis of Pulcher Mounds and Emerald Mounds to determine if they meet all study criteria.

The NPS recommends that the East St. Louis Mounds be further documented to determine their level of significance and potential for preservation and study. Without additional information and documentation, the NPS cannot conclude whether the East St. Louis Mounds are nationally significant. No additional study is appropriate until the significance of these sites is clarified.

For other outlying areas, it is unlikely that additional evaluation would establish their ability to meet NHL criteria. These sites have been identified and evaluated by the HeartLands Conservancy, whose mapping and trails initiatives have been beneficial to their future protection and interpretation. These sites are unlikely to meet the NPS criteria for inclusion in the national park system given the present state of archeological investigation and scholarship. No further study of these sites is recommended at this time.

SELECTED REFERENCES

Alt, Susan M.

2006 The Power of Diversity: The Roles of Migration and Hybridity in Culture Change. In *Leadership and Polity in Mississippian Society*, edited by B. M. Butler and P. D. Welch, pp. 289-308. Southern Illinois University, Carbondale.

Cobb, Charles R.

2003 Mississippian Chiefdoms: How Complex? *Annual Reviews of Anthropology* 32:63-84.

Dalan, Rinita A., George R. Holley, William I. Woods, Harold W. Watters, Jr., and John A. Koepke

2003 *Envisioning Cahokia: A Landscape Perspective*. Northern Illinois University Press, Dekalb, Illinois.

Emerson, Thomas E.

1997 *Cahokia and the Archaeology of Power*. University of Alabama Press, Tuscaloosa.

Fowler, Melvin L.

1997 *The Cahokia Atlas: A Historical Atlas of Cahokia Archaeology*. Revised ed. *Studies in Archaeology* 2. University of Illinois at Urbana-Champaign, Urbana, Ill.

Galloy, Joseph M.

2010 *A Once and Future City: The Splendor of Prehistoric East St. Louis*. In *The Making of An All-America City: East St. Louis at 150*, edited by M. Abbott. Institute for Urban Research, Southern Illinois University– Edwardsville, St. Louis.

HeartLands Conservancy

“The Mounds - America’s First Cities: A Feasibility Study Executive Summary.” HeartLands Conservancy, Mascoutah, Illinois, March 2014.

Hunter, Andrea, and Andrew Weil

2010 *Saving Sugarloaf Mound, St. Louis, MO*. *CRM: The Journal of Heritage Stewardship* 7(1):

Kelly, John

1990 *The Emergence of Mississippian Culture in the American Bottom Region*. In *The Mississippian Emergence*, edited by B. D. Smith, pp. 113-152. Smithsonian Institution Press, Washington, D. C.

1991 *The Pulcher Tradition and Its Role in the Development of Mississippian in the American Bottom*. *Proceedings of the 48th Annual Meeting of the Southeastern Archaeological Conference*. Jackson, MS.

1994 *The Archaeology of the East St. Louis Mound Center: Past and Present*. *Illinois Archaeology* 6:1-57.

Knight, Vernon J.

1986 *The Institutional Organization of Mississippian Religion*. *American Antiquity* 51:675-687.

Lopinoit, Neal H., and Timothy R. Pauketat

1997 Cahokian Population Dynamics. In *Cahokia: Domination and Ideology in the Mississippian World*, edited by T. R. Pauketat and T. E. Emerson, pp. 103-124. University of Nebraska Press, Lincoln, NE.

Milner, George R.

1998 *The Cahokia Chiefdom: The Archaeology of a Mississippian Society*. University Press of Florida, Gainesville.

Nassaney, Michael S., Neal H. Lopinoit, Brian M. Butler and Richard W Jeffries

1983 *The 1982 Excavations at the Cahokia Interpretive Center Tract, St. Clair County, Illinois*. Southern Illinois University at Carbondale Center for Archaeological Investigations, Carbondale.

Pauketat, Timothy R.

2002 A Fourth-Generation Synthesis of Cahokia and Mississippianization. *Midcontinental Journal of Archaeology* 27(2):149-170.

2005 *The Archaeology of the East St. Louis Mound Center Part 1: The Southside Excavation*. Illinois Transportation Archaeological Research Program, University of Illinois.

Pauketat, Timothy R., Susan M. Alt, Jeffrey D. Krutcheon, Lucretia Kelly and Kathryn Parker

2005 *Final Report of the Cahokia Extension Waterline and Grand Plaza Test Unit Projects*. University of Illinois, Urbana-Champaign.

Pauketat, Timothy R. and Thomas E. Emerson (editors)

1997 *Cahokia: Domination and Ideology in the Mississippian World*. University of Nebraska Press, Lincoln.

Pauketat, Timothy R., Andrew C. Fortier, Susan M. Alt, and Thomas E. Emerson

2013 A Mississippian conflagration at East St. Louis and its political-historical implications. *Journal of Field Archaeology* 38(3):210-226.

Phillips, Camille

“Update: The Archaeological Discoveries Made Possible By The New Mississippi River Bridge” St. Louis Public Radio, February 5, 2014.

Schilling, Timothy

2012 Building Monks Mound, Cahokia, Illinois, a.d. 800-1400. *Journal of Field Archaeology* 37(4):302-313.

2013 *The Chronology of Monks Mound*. *Southeastern Archaeology* 31(1):

Schilling, Timothy and John Kelly

2009 *Report on the 2007 Monks Mound Stabilization Project*. Central Mississippi Valley Archaeological Institute.

Steponaitis, Vincas P.

1986 Prehistoric Archaeology in the Southeastern United States, 1970-1985. *Annual Review of Anthropology* 15:363-404.

Weil, Andrew B., and Andrea Hunter

2010 "Saving Sugarloaf Mound in St. Louis, Missouri." CRM: The Journal of Heritage Stewardship, National Park Service, U.S. Department of the Interior, Winter 2010, 78-81.

Williams, Stephen, and John M. Goggin

1956 The Long-nosed God Mask in the Eastern Woodlands. Missouri Archaeologist 18(3).

Wittry, Warren L.

1996 Discovering and Interpreting the Cahokia Woodhenges. The Wisconsin Archaeologist 77:26-35.

APPENDICES

Appendix A: Reconnaissance Survey Request Letter

RICHARD J. DURBIN

ILLINOIS

ASSISTANT MAJORITY LEADER

United States Senate
Washington, DC 20510-1304

COMMITTEE ON APPROPRIATIONS

COMMITTEE ON FOREIGN RELATIONS

COMMITTEE ON THE JUDICIARY

COMMITTEE ON RULES
AND ADMINISTRATION

February 19, 2014

Michael Reynolds, Regional Director
National Park Service
601 Riverfront Drive
Omaha, NE 68102-4226

RE: Reconnaissance Study of The Mounds: America's First Cities

Dear Director Reynolds:

I am writing to request a reconnaissance survey of the Cahokia Mounds and associated Mississippian Mound groups located in Collinsville, Illinois and the St. Louis, Missouri region.

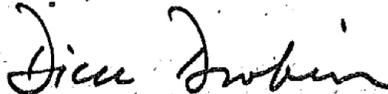
A reconnaissance survey, conducted by the National Park Service, would help to determine if an elevated designation, within the auspices of the National Park Service, of Cahokia Mounds and its thematically connected satellite sites would serve to protect mounds in the region which continue to be destroyed. This is a great loss to this ancient cultural landscape and our national heritage.

The current National Historic Landmark designation affords some limited protection around Cahokia Mounds State Historic Site proper, and the Illinois Burial Act has provided some protection. But many other mound sites - private or publicly owned - are threatened as new roads are built and development further encroaches on the remaining cultural resources of the region.

HeartLands Conservancy, in collaboration with Illinois and Missouri state agencies, the federal government, local communities, and with the guidance of Native American Tribes and Nations, has assembled a multidisciplinary project team and advisory committees to compile data for The Mounds - America's First Cities: A Feasibility Study. This is an intensive work plan to gather input for elevating the Mississippian Mounds in the St. Louis Metro region to a unit of the National Park Service.

Tremendous public support has demonstrated that the success of this endeavor will ensure that the epicenter of America's pre-Columbian Mississippian civilization will be protected for those who are ancestrally connected and for all to learn the story of our ancient heartlands. I urge you to give the most serious consideration to this reconnaissance survey request. Thank you for your consideration of this matter.

Sincerely,



Richard J. Durbin
U.S. Senator

711 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510-1304
(202) 224-2152
TTY (202) 224-8180

230 SOUTH DEARBORN, 38TH FLOOR
CHICAGO, IL 60604
(312) 353-4952

526 SOUTH EIGHTH STREET
SPRINGFIELD, IL 62703
(217) 492-4062

1504 THIRD AVENUE
SUITE 227
ROCK ISLAND, IL 61201
(309) 788-5173

PAUL SIMON FEDERAL BUILDING
250 W. CHERRY STREET
SUITE 115-D
CARBONDALE, IL 62901
(618) 351-1122

Appendix B: Criteria for Inclusion from NPS Management Policies 2006

National Park Service Management Policies 2006

1.3 Criteria for Inclusion

Congress declared in the national park system General Authorities Act of 1970 that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The National Park Service is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an act of Congress, and for making recommendations to the Secretary of the Interior, the President, and Congress. Several laws outline criteria for units of the national park system and for additions to the National Wild and Scenic Rivers System and the National Trails System.

To receive a favorable recommendation from the Service, a proposed addition to the national park system must

(1) possess nationally significant natural or cultural resources, (2) be a suitable addition to the system, (3) be a feasible addition to the system, and (4) require direct NPS management instead of protection by other public agencies or the private sector. These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation's natural and cultural resources. These criteria also recognize that there are other management alternatives for preserving the nation's outstanding resources.

1.3.1 National Significance

NPS professionals, in consultation with subject-matter experts, scholars, and scientists, will determine whether a resource is nationally significant. An area will be considered nationally significant if it meets all of the following criteria:

- It is an outstanding example of a particular type of resource.

- It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
- It offers superlative opportunities for public enjoyment or for scientific study.
- It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

National significance for cultural resources will be evaluated by applying the National Historic Landmarks criteria contained in 36 CFR Part 65 (Code of Federal Regulations).

1.3.2 Suitability

An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector.

Adequacy of representation is determined on a case-by-case basis by comparing the potential addition to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses rarity of the resources, interpretive and educational potential, and similar resources already protected in the national park system or in other public or private ownership. The comparison results in a determination of whether the proposed new area would expand, enhance, or duplicate resource protection or visitor use opportunities found in other comparably managed areas.

1.3.3 Feasibility

To be feasible as a new unit of the national park system, an area must be (1) of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries), and (2) capable of efficient administration by the Ser-

vice at a reasonable cost.

In evaluating feasibility, the Service considers a variety of factors for a study area, such as the following:

- size
- boundary configurations
- current and potential uses of the study area and surrounding lands
- landownership patterns
- public enjoyment potential
- costs associated with acquisition, development, restoration, and operation
- access
- current and potential threats to the resources
- existing degradation of resources
- staffing requirements
- local planning and zoning
- the level of local and general public support (including landowners)
- the economic/socioeconomic impacts of designation as a unit of the national park system

The feasibility evaluation also considers the ability of the National Park Service to undertake new management responsibilities in light of current and projected availability of funding and personnel.

An overall evaluation of feasibility will be made after taking into account all of the above factors. However, evaluations may sometimes identify concerns or conditions, rather than simply reach a yes or no conclusion. For example, some new areas may be feasible additions to the national park system only if landowners are willing to sell, or the boundary encompasses specific areas necessary for visitor access, or state or local governments will provide appropriate assurances that adjacent land uses will remain compatible with the study area's resources and values.

1.3.4 Direct NPS Management

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. The National Park Service applauds these accomplishments and actively encourages the expansion of

conservation activities by state, local, and private entities and by other federal agencies. Unless direct NPS management of a studied area is identified as the clearly superior alternative, the Service will recommend that one or more of these other entities assume a lead management role, and that the area not receive national park system status.

Studies will evaluate an appropriate range of management alternatives and will identify which alternative or combination of alternatives would, in the professional judgment of the Director, be most effective and efficient in protecting significant resources and providing opportunities for appropriate public enjoyment. Alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion listed in section 1.3.

In cases where a study area's resources meet criteria for national significance but do not meet other criteria for inclusion in the national park system, the Service may instead recommend an alternative status, such as "affiliated area." To be eligible for affiliated area status, the area's resources must (1) meet the same standards for significance and suitability that apply to units of the national park system; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the national park system; and (4) be assured of sustained resource protection, as documented in a formal agreement between the Service and the nonfederal management entity. Designation as a "heritage area" is another option that may be recommended. Heritage areas have a nationally important, distinctive assemblage of resources that is best managed for conservation, recreation, education, and continued use through partnerships among public and private entities at the local or regional level. Either of these two alternatives (and others as well) would recognize an area's importance to the nation without requiring or implying management by the National Park Service.

Appendix C: National Historic Landmark Criteria 36 CFR § 65.4 National Historic Landmark criteria.

The criteria applied to evaluate properties for possible designation as National Historic Landmarks or possible determination of eligibility for National Historic Landmark designation are listed below. These criteria shall be used by NPS in the preparation, review and evaluation of National Historic Landmark studies. They shall be used by the Advisory Board in reviewing National Historic Landmark studies and preparing recommendations to the Secretary. Properties shall be designated National Historic Landmarks only if they are nationally significant. Although assessments of national significance should reflect both public perceptions and professional judgments, the evaluations of properties being considered for landmark designation are undertaken by professionals, including historians, architectural historians, archeologists and anthropologists familiar with the broad range of the nation's resources and historical themes. The criteria applied by these specialists to potential landmarks do not define significance nor set a rigid standard for quality. Rather, the criteria establish the qualitative framework in which a comparative professional analysis of national significance can occur. The final decision on whether a property possesses national significance is made by the Secretary on the basis of documentation including the comments and recommendations of the public who participate in the designation process.

(a) Specific Criteria of National Significance: The quality of national significance is ascribed to districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling and association, and:

(1) That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of

those patterns may be gained; or

(2) That are associated importantly with the lives of persons nationally significant in the history of the United States; or

(3) That represent some great idea or ideal of the American people; or

(4) That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or

(5) That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or

(6) That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.

(b) Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings and properties that have achieved significance within the past 50 years are not eligible for designation. Such properties, however, will qualify if they fall within the following categories:

(1) A religious property deriving its primary national significance from architectural or artistic distinction or historical importance; or

(2) A building or structure removed from its original location but which is nationally significant primarily for its architectural merit, or for asso-

ciation with persons or events of transcendent importance in the nation's history and the association consequential; or

(3) A site of a building or structure no longer standing but the person or event associated with it is of transcendent importance in the nation's history and the association consequential; or

(4) A birthplace, grave or burial if it is of a historical figure of transcendent national significance and no other appropriate site, building or structure directly associated with the productive life of that person exists; or

(5) A cemetery that derives its primary national significance from graves of persons of transcendent importance, or from an exceptionally distinctive design or from an exceptionally significant event; or

(6) A reconstructed building or ensemble of buildings of extraordinary national significance when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other buildings or structures with the same association have survived; or

(7) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own national historical significance; or

(8) A property achieving national significance within the past 50 years if it is of extraordinary national importance.

Appendix D: Jurisdictions of Sites Included in This Survey**Cahokia Mounds**

St. Clair County, Illinois
Madison County, Illinois
Village of Fairmont City
Village of Caseyville
City of Collinsville

St. Louis Mound Group

City and County of St. Louis, Missouri

East St. Louis Mounds

St. Clair County, Illinois
City of East St. Louis

Mitchell Mounds

Madison County, Illinois
Chouteau Township

Sugar Loaf Mound

City and County of St. Louis, Missouri

Pulcher Mounds

St. Clair County, Illinois

Emerald Mounds

St. Clair County, Illinois

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Back Cover: The twin mounds at Cahokia Mounds State Historic Park. Photo is courtesy of National Geographic photographer, Ira Block, featured in January 2011 article, "Cahokia: America's Forgotten City" by Glenn Hodges.

