Mounds State Park
Interpretive Master Plan 2011

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Contents

Introduction

In response to the need to review, evaluate and offer recommendations, the Indiana Department of Natural Resources, Division of State Parks and Reservoirs has developed this Interpretive Master Plan for Mounds State Park.

The plan provides a resource overview of the park's natural and cultural resources, a summary of existing conditions for interpretation, and a listing of partners and regional offerings. This is followed by interpretive recommendations based upon resources and conditions. Recommendations include a comprehensive evaluation of the interpretive center 2005 exhibits.

Mounds is unique in the system for the following reasons:
- It was dedicated for the purpose of protecting a nationally recognized cultural site.
- It is a small park that encompasses and buffers the cultural site.
- Protection and restoration of the mounds is a significant management responsibility in terms of cost, time and staff.
- It is located in an urban setting where it serves the same purpose as a city park and primary school trip destination.

Interpretation at Mounds must go hand-in-hand with protection and restoration strategies from park management, the Division of State Parks and Reservoirs and the Division of Historic Preservation and Archaeology. Protection and restoration will ensure continued interpretation of the significant site. Likewise, interpretation will ensure that protection and restoration efforts are understood, appreciated and supported.

Resource Overview

I. Natural History

A. Geology

1. Ice Age
Mounds State Park lies within the Tipton Till Plain, a natural region that covers much of Central Indiana. Over 10,000 years ago, the region was blanketed by a thick layer of ice. The underlying limestone bedrock was buried under glacial till, leaving a relatively flat surface.

White River

2. White River
As the Ice Age ended and glaciers receded, torrents of meltwater rushed across the new flat landscape. The water carved through the glacial till, down to the bedrock. These meltwater paths eventually formed the major rivers of Indiana, including the White River.

The White River was a trade and transportation route for the mound builders. Using dugout canoes, items were brought to the region. Copper from the north, shells from the Gulf, obsidian from the west and mica from the east have been found at the mounds.

When European settlers arrived, the White River became compromised. Trees along the banks were cleared to create agricultural land. This caused increased water temperature due to lack of shade, and erosion on stream banks. Animal wastes from pastures and slaughterhouses washed into the White River. A growing human population along the river used the river as an open sewer. Cholera epidemics became common.

Public alarm resulted in the development of wastewater treatment facilities and the passage of laws protecting the White River. Although water quality in the White River is improved, non-point source pollution remains a problem.

3. Seeps
The park contains several seeps. Seeps are common in the Tipton Till Plain where torrents of glacial meltwater cut through the gravel, forming river bluffs. Water percolating through the river bluffs seeps and spreads across the soil. The water picks up minerals from the gravel, making conditions alkaline. Unique plant communities and associated fauna can be found in seeps.

Seeps and Springs

4. Caves
Small caves formed in the soft conglomerate rock exposed at the base of the bluffs. The caves were filled or dynamited in the 1920s for safety reasons.

There are many reports, stories and legends surrounding the caves. Many of the caves were reportedly filled with artifacts when first discovered. Another story tells of one cave leading under the mounds. During the era when the

park was an amusement park, the daughter of a concessionaire became lost in a cave for 18 hours. A beech tree has "Back Entry to Cave" carved on it with an arrow pointing the way.

B. Plant Communities

1. Pre-Settlement Conditions
Survey records from 1821 describe the region as largely wooded. In order of abundance, the trees reported were: hickory, beech, white oak, buckeye, elm, sugar maple, black oak and swamp oak. Drier upland forest was primarily oak-hickory. The property is described as "rolling 3rd rate woods". Sugar maple was not as prevalent as it is now.

2. Current Conditions
The park was cleared for farming, but forest has returned. Today, Mounds State Park is again largely wooded. Spring wildflowers are abundant, indicating a high quality woods with minimal disturbance.

In addition to upland forest, other ecosystems found within the park include:
a. Fen. The fen results from water percolating through glacial gravel deposits. Emerging groundwater is highly alkaline and creates a unique ecosystem. In 1980, the fen was dedicated as a state nature preserve due to its clean water and high biodiversity. (see fen plant list in Appendix A)

b. Floodplain Woods. Along the White River, saturated alluvial soils create a forest type that includes sugar maple, American elm, black walnut, tulip poplar, hackberry, red maple and sycamore. The understory consists of American bladdernut, dogwood and gooseberry.

c. Wet Sedge Meadow. A slope west of the main pavilion contains a three-acre sedge meadow bordered by willows and red osier dogwood. In addition to several sedge species, the meadow contains blazing star, goldenrod, gentian, golden ragwort, and primrose.

C. Fauna
The fauna of Mounds State Park is typical of central Indiana. Common mammals, birds, insects, reptiles and amphibians reside at Mounds. Some special fauna exists in the park's unique communities.

1. White River
The White River was historically noted for its clear water and abundant fish. Turtles, mussels and fish were a food source for the Adena and Hopewell people.

With European settlement came farming and development. Silt eroded into the river. The White River was used as a sewer for farm and industrial waste. The river fauna was compromised.

By the 1900s, laws were enacted to protect the White River and the people living along it. Wastewater treatment facilities came into existence. In 1943, discharging waste into the river became illegal.

Today, the White River is improved, but still struggles. Non-point pollution from agricultural chemicals still enters the river. In 1999, a chemical spill near Anderson resulted in a large fish kill.

Bluegill

Carp, bluegill, large-mouth bass and catfish are common in the White River, but a consumption advisory is in effect. Depending on the fish species, only one meal per month or every other month is advised. Mercury and PCBs are present in the fish population.

2. Listed Species
Mounds State Park provides habitat for some uncommon species.

a. Gray petaltail dragonfly. This State Rare species is found at the park's fen and seeps. There are only three known Indiana sites for the gray petaltail. The adult is the only gray and black dragonfly in the eastern United States. Females will forage away from the fen, while territorial males patrol the fen. The larvae require 3-5 years to mature. The gray petaltail dragonfly has been on the planet for 200 million years.

Gray petaltail

b. Clamp-tipped emerald green dragonfly. This dragonfly is also a State Rare species, found in the fen. It is metallic bronze with green eyes.

c. Starnose Mole. The starnose mole is a species of Special Concern in Indiana. It is generally found only in the northern counties of Indiana, so Mounds represents a disjunct population. The starnose mole is a semi-aquatic predator, feeding on insects and worms.

Starnose Mole

II. Cultural History

A. The Mounds

1. Background
Late Archaic people created and used the mounds from approximately 200 BC until 200 AD. The Adena were the earliest group and were the mound builders. Over the next 500 years, the Adena's culture, technology, artistry and rituals changed. Archaeologist refer to the changed culture as the Hopewell. A tomb within a mound

was constructed around 50 AD by the Hopewell. The Hopewell had disappeared from Indiana by 500 AD. There is the possibility that these early people later became the Miami or Shawnee, but there is no evidence proving this.

About 2000 years ago, advances in trade and spiritual practices such as ceremonial burial began to appear. Items and materials such as copper for beads and breastplates, mica for carved stones, obsidian (volcanic glass) and seashells indicate a sophisticated trade system. Native plants were beginning to be cultivated although corn would not appear for several more centuries. Woven fabric, cordage and baskets from plant fiber appear as well as pottery for food storage and cooking. An understanding of celestial movements and calendars existed. The amount of time, effort and resources required to create the mounds suggests that the culture was experiencing an extended period of peace and stability.

No Adena or Hopewell village sites have been identified. The mounds were strictly for ceremonial purposes.

2. Building the Mounds

During this era, several thousand earthworks were constructed in the Ohio River Valley. Over 300 were identified in central Indiana. All mounds were located on the eastern bluff of a waterway. When in use, the mounds and the area around them were treeless. Trees would have been burned to maintain an open view.
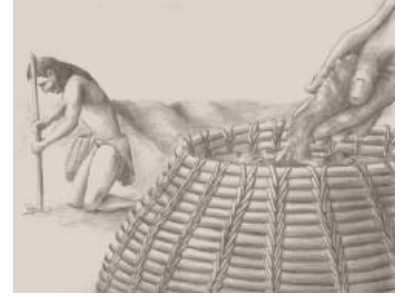
Construction of the mounds at Mounds State Park began around 250 BC. All enclosure mounds include the following parts:

a. Embankment. The embankment was the earthen mound, marking the perimeter of the enclosure. Earth removed to create the ditch was used in building the mound. Based on the tools available, creating the embankment and ditch for a large mound would have taken 120 people about four months to create.

b. Ditch. The circular ditch was dug first. Removed earth was loaded into baskets and deposited onto the mound.

c. Platform. A central platform at ground level was encircled by the ditch.

d. Gateway. A break in the embankment allowed people to access the platform at ground level.

3. The Park's Mounds

Ten mounds have been identified within the park property. Five of the mounds are identified on the park map.

a. Great Mound. This is the largest and best preserved mound, and was a ceremonial site around 250 BC. Its embankment has a ¼-mile circumference that was completed, around 160 BC. The mound's ditch was originally six feet deeper. Although constructed by the Adena, Hopewell burials were discovered in the mound. A small mound on the platform (now gone) contained a log tomb. Another tomb containing two burials was located within the mound. These burials occurred around 50 AD, roughly 200 years after the mound was constructed.

b. Fiddleback. As its name indicates, Fiddleback has a fiddle- or figure-8 shape. There are only five other mounds in the United States that have this shape. It is believed that Fiddleback may have been a trash midden as many artifacts have been found there.

c. Circle Mound. Contrary to what its name would imply, the Circle Mound has a rectangular shape. While the other four mounds are in close proximity at the southern end of the park, Circle Mound is at the northern end of the park. The Circle Mound was built about 250 years after the Great Mound.

d. Fomalhaut/Earthwork B. This mound is very small, standing only 14 inches. It is frequently unrecognized as a mound. Its design is unique in that it has two gateways instead of one.

e. Woodland Mound/Earthwork D. This mound is another small mound, constructed at around 140 BC.
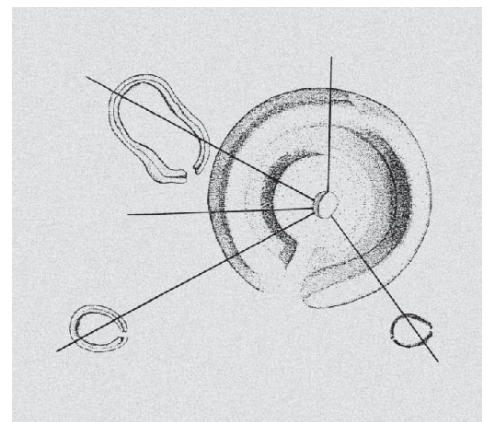
4. Astronomical Alignment

Archaeologists studying the mounds identified post holes lining the embankments of the Great Mound. Over 400 upright saplings formed a wall that included seemingly random breaks at dips in the embankment. It was

thought that the dips were the result of erosion. In the late 1980s, archaeologists discovered that the mound's orientation and the breaks in the walls mark astronomical events.

a. Great Mound. The dips in the Great Mound are oriented to mark the winter and summer solstice and the spring and fall equinox. Additional dips identify due North and various star alignments.

b. Circle Mound. The mound gateway aligns due east and west. The diagonal alignments through opposite corners mark the winter and summer solstices. During the spring and fall equinox, the sun rises directly in line with the mound's gateway.

c. Fomalhaut/Earthwork B. This earthwork lines up with the rising of the star Fomalhaut in the fall months.

d. Woodland Mound/Earthwork D. This mound aligns with the sunset on the winter solstice.

5. The Mounds Today
Many of the region's mounds were destroyed when land was cleared and plowed for agriculture. The fact that the park's mounds exist is a credit to the Bronnenburg family. These original property owners refused to plow the mounds and protected them from looters.

Even so, the mounds have management concerns:

a. Natural erosion is wearing down the embankments and filling in the ditches. Archaeologists estimate that the original ditches on some mounds may have been three to six feet deeper than present.

b. Human-caused erosion has escalated the problem. With the exception of the Great Mound, the mounds are unprotected from foot traffic. A horse trail once crossed the Great Mound. During the amusement park days, people would drive Model T Fords around the top of the Great Mound.

c. Trees. The area around the mounds was treeless when the Adena were using them. They required a clear horizon line, free of obstacles. Today, the mounds are dotted with large trees. While this gives a park-like appearance, the trees greatly endanger the integrity of the mounds. Eventually, the trees will fall, pulling up their root balls. This will significantly destroy the mound's archaeological potential.

B. The Bronnenberg Family
The Bronnenbergs were the original property owners of Mounds State Park. Several generations of Bronnenbergs farmed and ran businesses on the property. Their large brick home is a feature of the park.

Much conflicting information has been written about the Bronnenbergs. Dates and events vary between documents. The following information is based on documents provided.

1. Frederick Bronnenberg Sr.
The patriarch of the family arrived in the United States from Germany around 1800. It is believed that he left Germany to avoid the draft.

Upon arriving in the U.S., Frederick settled in Pennsylvania where he met and married Barbara Easter (there are numerous spellings of her last name). Around 1820, the Bronnenbergs and their children headed west,

Frederick Bronnenberg, Sr.

reportedly with Illinois as their final destination.

Accounts vary as to why their journey ended in Madison County, instead of Illinois. One story points to a broken ox cart as the reason. Other accounts tell of the death of a child. Still another tells of the deaths of two children.

Regardless of the reasons, the Bronnenberg family settled in Madison County. Frederick built a log home for his growing family. He cleared his land for agriculture and opened a tannery. By 1837, a sawmill was in operation to which a grist mill, carding mill and distillery were reportedly added.

The Bronnenberg land included the mounds. Frederick took an interest in the mounds and protected them from vandals and plowing.

Frederick and Barbara Bronnenberg would eventually have 12 children, nine of whom survived. In 1850, Frederick Sr. served as a County Commissioner. The family was extensive and prosperous with several land holdings and businesses. Frederick Sr. died in 1853.

2. Frederick Bronnenberg Jr.
Many of Frederick Sr. and Barbara Bronnenberg's children remained in the community and became successful citizens. It was their third child, Frederick Jr., who stayed on the farm. With his wife, Hulda, and their six children, Frederick Jr. expanded the farm and built the brick farmhouse that is on the park property. His son, Ransom, would continue to live on the farm and expand the house and property.

Frederick Jr. is credited with realizing the value of the mounds. He left the mounds undisturbed, protected them from looters, and extolled their virtue as a community point of interest and destination.

Frederick Jr. died in 1901, leaving the property and home to his son Ransom Bronnenberg.

3. Bronnenberg Home
The Bronnenberg home was built by Frederick Jr. during the 1840-1850 time frame. The home is a Federal style "ell". It has four main rooms, two upstairs and two downstairs with a central hall and stairway. A fifth room formed the "ell" and was attached to the back left side of the home.

Native materials were used in the home's construction. Tulip poplar and oak provided the wood for construction and flooring. The home foundation is native limestone, while the window sills are sandstone. Local clay was collected and fired into bricks.

A few years after Frederick Jr. died, his son Ransom altered the house. A second floor was added to the one-story "ell". The back porch was enclosed and a second floor added to it.

The farm included several other buildings including a barn, corncrib, smokehouse, summer kitchen and springhouse. Many of these outbuildings were still standing when the park was established in 1930, but have since been torn down. The remnants of the stone springhouse can be seen at the bottom of a ravine behind the home.

Bronnenberg Family in front of home.

C. Interurban

The arrival of the interurban to the mounds increased the value of the mounds as a destination and point of interest.

1. History

In the 1890s, Samuel Bronnenberg, a grandson of Frederick Sr., helped to form the Anderson-based Indiana Union Traction Company. The company began by purchasing right-of-ways and later opened their first interurban line from Anderson to Alexandria. The following year the line was extended to Summitville. Within a few years, the system was one of the largest interurban lines in the country, managing 490 miles of track. Terminals were situated in Anderson, Muncie, Indianapolis, Marion and Tipton.

2. How they worked

Interurbans were similar in appearance to streetcars. They were powered by electricity which ran in an overhead wire. Power was transferred from the wire to the locomotive.

3. Impact

The advent of the interurban revolutionized transportation. The cars could travel at 70 mph. People in rural communities could commute to jobs in larger cities. Suburbs appeared for the first time. The interurban also transported mail and other commodities.

Top: Interurban summer car
Above: Interurban station at Mounds Park

4. The interurban at Mounds Park

In 1905, 40 acres of land was leased from Ransom Bronnenberg to the Indiana Union Traction Company. The company built an amusement park on the acreage, and made it an interurban stop. An open waiting station with a jukebox paralleled the track that ran along what is now Trail 5. Foundations of the station can be seen along the trail as well as trestle remains.

Summer cars were used for travelers going to Mounds Park. These cars were open on all sides with roll-down rubber curtains should rain or wind arrive.

5. Demise of the interurban

The last interurban in the area ran in 1941. The interurban company had huge financial problems created by the Great Depression and by the introduction of automobiles, buses and trucks. These new means of transportation moved people and goods directly from their origin to their destination.

D. Amusement Park

The Union Traction Company leased 40 acres of land including the Mounds and soon after constructed an amusement park. A spur connected the main line of the interurban to the park. The amuse-

Top: Mounds Park pavilion
Above: Amusement Park trai ride

ment park operated from 1897 until 1929.

During its 30 years, the amusement park contained many rides, activities and food vendors. Among its features were:

- A merry-go-round with a brass ring. Whoever grabbed the ring would get a free ride.
- A pavilion with a soda fountain, restaurant and dance hall on the 2nd floor. When the pavilion was torn down, the foundation stones and wood were pushed over the ravine into the White River. Remnants can still be seen.
- A canoe and rowboat rental on the White River. A rock dam on the river kept boats from going downstream. Boats could travel upstream as far as Chesterfield before returning. A small paddlewheel boat toured the river. A large artesian well provided drinking water at the boat rental. Portions of the well remain.
- A roller coaster called Leap the Dips. The roller coaster was all wood and cost 5 cents to ride.
- A kiddie train that went around the Great Mound, past the roller coaster, merry-go-round, and across a trestle before looping around a skating rink.

Leap the Dips

Other activities offered over the course of the park's history included a skating rink, shooting gallery, horse shoes and bowling alley.

Musical performances were presented on a bandstand. Other entertainment included speakers, preachers, lectures, beauty contests, talent shows, plays and firework displays. In 1909, more than 20,000 people came to Mounds Park to see a "re-enactment" of an Indian battle with cowboys, Indians, stagecoaches and covered wagons. Live monkeys were on display for a time. A strong man booth challenged individuals to swing a large hammer in an attempt to ring a bell.

People came to the park in buggies, on the interurban, by bicycle, on foot and later by car. Food concessions were available, but many brought their own picnic baskets. Mounds Park was an extremely popular Sunday activity for the region.

When the Great Depression hit in 1929, attendance crashed and the amusement park operation shut down. The property was sold to the Madison County Historical Society which then transferred it to the State to become Mounds State Park in 1930.

The amusement park operation helped to protect the Mounds for posterity. The park marketed the mounds as a point of regional pride and a destination. Transferring the land from private to public park land ensured that the mounds would continue to be protected.

E. Park History

Mounds State Park was dedicated during the Great Depression. At that time the interurban tracks and station were still there as well as the amusement park's skating rink and pavilion.

In spite of the tough financial times, Mounds moved forward. Four gate attendants and three laborers were hired. The WPA (Work Projects Administration) placed about 16 laborers at the park to construct a horse barn and corral. Picnic tables, brick

Anne as park superintendent.

cookout ovens and directional signs were added. Events such as annual beagle hound trials were popular. The pavilion was rented out for private parties.

During much of its early years, Mounds State Park had a female superintendent. Anne Norton came into the position when her husband was unable to continue his superintendent duties. At that time, the Nortons had four young children. Anne received $100/month and housing on the park property.

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Existing Conditions

I. Audiences

A. Park Users

1. Day Use

Mounds is a comparatively small state park (290 acres), located in an urban area (Anderson, Indiana). In many respects, it serves as the local city park, drawing day users, picnickers and joggers. Mounds is a destination for numerous family reunions, class reunions and annual company picnics. During the summer, the state park has the only outdoor public pool in the region. The offer of a 20-entry pass for the pool draws local visitors to the park.

2. Overnight campers

The park has 76 camp sites. The campgrounds are full every weekend from Memorial Day until the end of October.

Campground use has increased over the past few years. Most of those staying in the campgrounds are from the region and haven't traveled a great distance. A typical stay would be 2-3 nights, and many are repeat users. Other states represented at the campgrounds include Ohio, Pennsylvania, Illinois and Michigan. Very few campers come from southern states.

The Mounds State Park campgrounds have become a favorite stopover for many Canadians heading south for the winter. Its close proximity to I-69 which begins at the Michigan/Canada border has a lot to do with this.

B. Interpretive program attendance

In comparison to three other parks with full-time programming (Pokagon, McCormick's Creek and Indiana Dunes), Mounds State Park's programming and attendance continues to be very popular with school groups and other organized groups. Whereas the formerly mentioned parks have an average 12.5% of their program attendance from school groups, the percentage is 27.7% for Mounds. Programs for groups such as scouts and churches is also highly represented in program attendance for Mounds (21.8% versus 9.6% for the other parks). By contrast, public program attendance represents only 50.5% of the total program attendance for Mounds, while it is 76.6% for the other parks.

% of total attendance	Mounds	Pokagon, Dunes, McCormick's (combined average, rounded)
School Groups	27.7	13.0
Other Groups	21.8	10.0
Public	50.5	77.0

C. Schools

While other parks have seen school programming decline, Mounds State Park has seen the numbers remain steady, or increase. This is due in part to their urban location, in close proximity to many schools. The cultural history focus of the mounds also ties nicely to school curricula.

Public school visits have declined, but private and home schooled children have made up the difference.

D. Scouts

Both Girl and Boy Scouts request programs in large numbers. Boy scouts frequently camp at the park. Girl Scout attendance is increasing as Girl Scout councils divest themselves of their own properties.

II. Facilities

A. Interpretive Center

The interpretive center is within the Visitor Center, which also houses the park office. It is located close to the park entrance. The facility and its exhibits opened in 2003.

The interpretive center includes an exhibit room, wildlife viewing room, office, storage space and a multi-purpose room. A gift shop is located in the building.

Live animal exhibits

The exhibit room includes exhibits and a small central seating area. The exhibits will be addressed in more detail in the Recommendations section of the plan.

A new live eagle exhibit is visible from the bird watching room. The eagle is owned by a licensed raptor rehabilitator, and will be used for programs and for viewing.

Bird watching room

The multi-purpose room serves as an auditorium and workshop/meeting room. It is also used as a prep room for events and programs. A wall divider can be pulled out to divide the room if necessary. The room is spacious and can accommodate several utility tables. An audio/visual room faces a roll-down screen. The room also has a kitchenette.

In addition to interpretive programs, the multi-purpose room is increasingly used by other IDNR, natural resource-related groups and public groups for their meetings.

Gift shop

Programs are conducted in the interpretive center and many hikes originate from the building. The building is open daily April – October, and 9 a.m. - 4 p.m. Monday through Saturday and 11 a.m. – 4 p.m. Sunday, November – March.

A small outdoor amphitheater is located at of one end of the Visitor Center. Bench seating is situated on a downward facing slope. The amphitheater includes a campfire ring and is used for small performances and church services.

Multi-purpose room

Bronnenberg House

B. Bronnenberg House

The Bronnenberg House is located a short distance from the Visitor Center. Prior to the construction of the Visitor Center in 2003, the Bronnenberg House served as the Nature Center. Today it is being restored to a late-1800s time period. The house contains eight rooms on two floors, plus two stairways, halls and a pantry. Rooms include bedrooms, a kitchen, dining room, formal parlor and an informal sitting room.

The Bronnenberg House is open for public tours and special events.

C. Trails
Six trails range from easy to rugged in difficulty and from .4 miles to 2.5 miles in length. Trails 5 and 3 are the two trails used most for interpretive programs. Trail 5 passes the mounds, the White River, seeps and springs. Trail 3 is shorter loop trail offering many of the same experiences. Both trails can be accessed from the Visitor Center.

Trail 4 is an access trail from the Campgrounds to the pool, the main road to the visitor center. It is used most often for night hikes. Trail 6 links the Campgrounds to the camp store and boat launch on the White River.
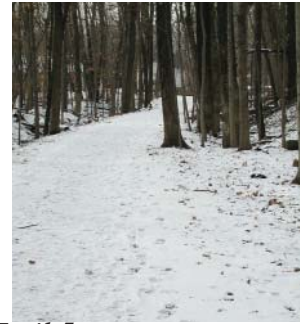
Trail 5

D. Pool House
The pool and pool house provide a site for roving interpretation and short programs during lifeguard breaks. During the off-season, the pool house offers an alternative gathering site for special events due to its large well-lit parking lot, and restrooms.

E. Campgrounds
There are 76 Class-A sites at the Mounds State Park campgrounds. The campgrounds are at the northernmost end of the park, away from the Visitor Center, Bronnenberg House and the most of the mounds.

Programs are scheduled at an unreserved campsite or at the campground host's campsite. The site number is placed on the schedule. Hikes originate at the shower building or camp store. The campgrounds are well-situated for hikes to the boat launch on the White River, a destination at the northern end of the park.

Campground Store

III. Staff

A. Staff

Mounds State Park has had a full-time interpretive staff position since the mid-1980s. At the time of this writing, the park also has one 180-day seasonal interpreter position and one 90-day seasonal interpreter position.

B. Volunteers

The Mounds State Park interpretive service is fortunate to have a large and active corps of volunteers, many of them members of the Friends of Mounds State Park group. Their many duties include Interpretive Center upkeep, maintaining bulletin boards, preparing for workshops, Bronnenberg house restoration, and serving as docents at the Bronnenberg House. Volunteers also help with special events, landscaping and organizing fundraisers.

IV. Programs

A. Schools
Program attendance at Mounds State Park includes a higher proportion of school groups than experienced by other properties. School programs make up a large percentage of both program attendance and percentage of program type. January and February are the only school-year months where school programs are not running Monday through Friday. During these months, 2-3 off-site classroom programs are conducted each month.

High school attendance figures result from the park's urban location and its tie to school history requirements. The interpreter has developed programs that meet Indiana state history standards. School principals have been supportive of field trips to Mounds State Park because of this.

Most of the students visiting Mounds are in the upper elementary grades. The fourth grade Indiana History requirement makes Mounds a popular field trip. Many pre-school and kindergarten classes also schedule field trips to Mounds.

A flyer *School & Group Programs* lists and describes programs and spells out the logistics of scheduling.

B. Public
Traditional programs such as hikes, talks and activities are offered at the park. Public programs are offered Friday through Sunday from April to October. This is in contrast to other properties that offer a greater number of public programs throughout the week. The park's high number of school groups in the spring and fall, a smaller campground population, and no inn are reasons for this difference. There is a smaller overnight population at Mounds, but a large day-use visitation coming from Anderson and the surrounding region.

In addition to scheduled programs, roving interpretation is conducted at the mounds, the poolhouse and the campgrounds.

C. Events, Workshops and Camps
Special events, workshops and other activities cater to the local population and those staying at the campgrounds. Themed events include: archaeology, Halloween, earth day and summer solstice. Theme-related activities are offered throughout the day or weekend at these events.

Workshops are specific programs that usually involve a demonstration and a hands-on project. Participants typically leave a workshop with something they've created. Examples are: bat house building, bird feeders, grapevine wreaths, punch tin lanterns, gardening and photography. Workshops are popular and have repeat visitors. There is no gate fee to attend a workshop, but a workshop fee pays for materials. Workshops have generated revenue and are offered during the January – March off-season when there are fewer school programs.

A geocache program has been successful and is offered as a multi-day event. As many as 300 people have attended over the course of the 3-day period.

D. Camps
The interpretive service offers day camps in the spring, summer and winter. The Naturalist Camp is offered for 8-10 year-olds, the Wilderness Survival Camp for 11-13 year olds and the Winter Break Day Camp for 7-11 year-olds. A Spring Break camp will be offered this year for the first time. The first two camps will increase from three to four days in the summer of 2011. All of the camps generate revenue for the park.

V. Media

A. Exhibits
The Interpretive Center exhibits were designed and installed in 2003 by a professional exhibit firm. The exhibits follow a circular traffic flow and cover the following topics: the mounds, live animals, park flora and fauna, and

property history (Bronnenberg Family, interurban, amusement park and state park history). A wildlife viewing room has exhibits covering bird and nest identification.

Many of the exhibits are interactive, most using touch buttons to answer a question. Other interactive components include a magnifying glass (leaf identification), lift doors (nest identification), and a shape matching interactive (artifacts). Aquariums feature live animals and a bird watching room allows observation of a feeding station. A live bald eagle enclosure is visible from the bird observation room.

Two dioramas are located at either end of the gallery. There are also passive exhibits that consist of text panels with items in cases.

Diorama

In the hallway outside of the restroom, a former cubby-hole wall was creatively converted into a series of "look and touch" boxes.

The exhibits are attractive in appearance and are comprehensive in telling the park's story. There are, however, some problems with:
- Too much text on some panels
- Too much reliance on touch-button interactives. Many include an audio "correct" sound which becomes overwhelming when combined with noise from other exhibits and visitors.
- No changeable exhibit space

A comprehensive exhibit evaluation appears in the Recommendations.
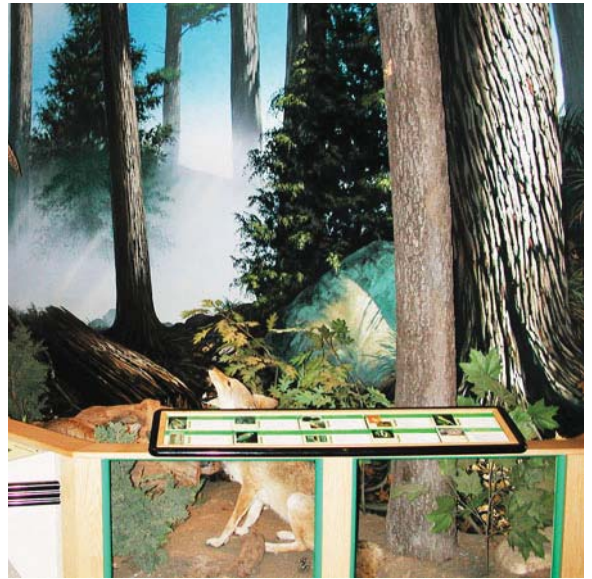
Sign at the Great Mound

B. Signs
Mounds has numerous panels that interpret various cultural and historical topics. Signs include:
- Mounds: each of the five main mounds have a sign
- Bronnenberg House
- Fen
- White River
- Amusement park: one at the White River and one at the interurban station
- Interurban
- Dugout Canoe
- Caves, seeps and springs

C. Brochures
Brochures currently in use include:
Mushrooms
Spring wildflowers

Butterfly garden
Bird room garden
History of the mounds
Birds of Mounds State Park

New brochures (as yet unprinted) include:
Bronnenbergs
Self-guided tour of the mounds
Self-guided tree hike

D. Bulletin Boards
Eight bulletin boards contain park information and interpretive schedules.

E. DVD
A 13-minute DVD about the park is available at the Interpretive Center for viewing.

VI. Partnerships
Groups that have partnered with the Mounds State Park interpretive service include:

A. Friends of Mounds State Park
The mission of the Friends Group is to *assist the State Park staff in its mission to preserve and protect Mounds State Park*. They do this by raising funds and volunteering.

Recent Friends activities include:
- Working on Bronnenberg House restoration projects
- Providing food and t-shirts for day camps
- Providing materials and supplies for workshops
- Raising money for special events and performances
- Conducting fund raising events such as the Native Plant Sale
- Providing staff assistance at special events

B. Indiana Division of Nature Preserves
The park's fen is a dedicated nature preserve. The Division of Nature Preserves handles management responsibilities such as conducting prescribed burns at the fen.

C. Boy Scout Council
Mounds State Park is a popular place for Eagle Scout projects.
Past projects include:
- trail maintenance
- constructing the amphitheater
- building birdhouses and benches
- removing fences
- invasive plant removal
- planting wildflowers

D. InPaws
The Indiana Native Plant and Wildflower Society's mission is to *promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation*. The organization conducted a flora survey of the park.

E. Archaeological assistance
Archaeological organizations have conducted digs, and hosted archaeological events at Mounds. Organizations include Ball State University and the Indiana Division of Historic Preservation.

F. White River Watchers
This Anderson-based organization has the mission of: *protecting the White River ecosystem for the present and the future use of all by means of community involvement and education*. The organization conducts river cleanups at the park.

G. Madison County Convention and Visitors Bureau
The Bureau promotes park events through their publications and web site.

H. DINO: Doing Indiana Outdoors

This Indianapolis-based organization sponsors running, mountain bike and multi-sport races around the state. In the past, they have hosted a run at Mounds State Park.

I. Road Runners/Anderson Chapter
This national running organization has an Anderson chapter that organizes 5K races at the park.

J. High Schools
Local students assist with Halloween special events.

K. Businesses
Several businesses donate items such as birdseed, pumpkins for Halloween events, and prizes for geocache events.

L. Animal Rehabilitators
Injured animals are frequently brought to the park. Local rehabilitators are contacted to take the animals.

VII. Regional Opportunities

Below is a list of regional opportunities and their distance from Mounds State Park.

A. Rangeline Nature Preserve. 1 mile

The City of Anderson Parks Department manages a 180-acre mountain bike park. It is located very close to the state park. Mounds State Park does not permit mountain biking.

B. Gruenwald House. 3 miles

The Gruenwald House is an historic home located in Anderson and managed by the Madison County Historical Society. Public tours and events are held in the home. Martin Gruenwald was a business man who ran a billiard parlor and brewery. The Gruenwald House was occupied during same era as the Bronnenberg House and offers a comparison between architectural styles and interior furnishings.

C. Madison County Historical Society. 3 miles

In addition to managing the Gruenwald House, the MCHS operates the History Center in downtown Anderson. The all-volunteer organization manages exhibits, oversees archives, and conducts programs.

D. Canoe Country Livery. 3.5 miles

A canoe livery is located northeast of Mounds on the White River. The livery rents canoes and offers trips of several lengths, some of which pass the state park.

E. Minnetrista. 16 miles

Located in downtown Muncie, Minnetrista is a museum and cultural center. The site was formerly owned by the Ball family. Its position statement is: *Minnetrista is a gathering place where people come together to experience nature, history, gardens, and art. Minnetrista is committed to being a leader in making our community a great place to live*. Its campus is on 40 acres and includes buildings, large landscaped gardens, natural areas, a farmer's market and gift shops. A variety of events and programs are held for the public, schools and special groups.

F. Wilbur Wright Fish and Wildlife Area. 16 miles

The State Fish and Wildlife Area is 1070 acres in size, and is managed for hunting, fishing, trapping and wildlife viewing.

G. Strawtown Koteewi Park. 17 miles

Strawtown is a 750-acre park managed by the Hamilton County Parks Department Purchased in 1999, archaeologists have discovered a major occupancy of the site during the 1200-1400 A.D. time period. The park's Taylor Center of Natural History includes an archaeology lab, classrooms, exhibit area and artifact curation area. Tours and programs are offered at the site.

H. Conner Prairie. 20 miles

Conner Prairie is in Fishers, Indiana. Conner Prairie is a large interactive history park that includes themed areas and first-person interpreters. Areas include the Conner Homestead, a Lenape Village, Prairietown and the Civil War in 1863 (to open in summer, 2011). Conner Prairie is a private non-profit facility started by Eli Lilly in 1930.
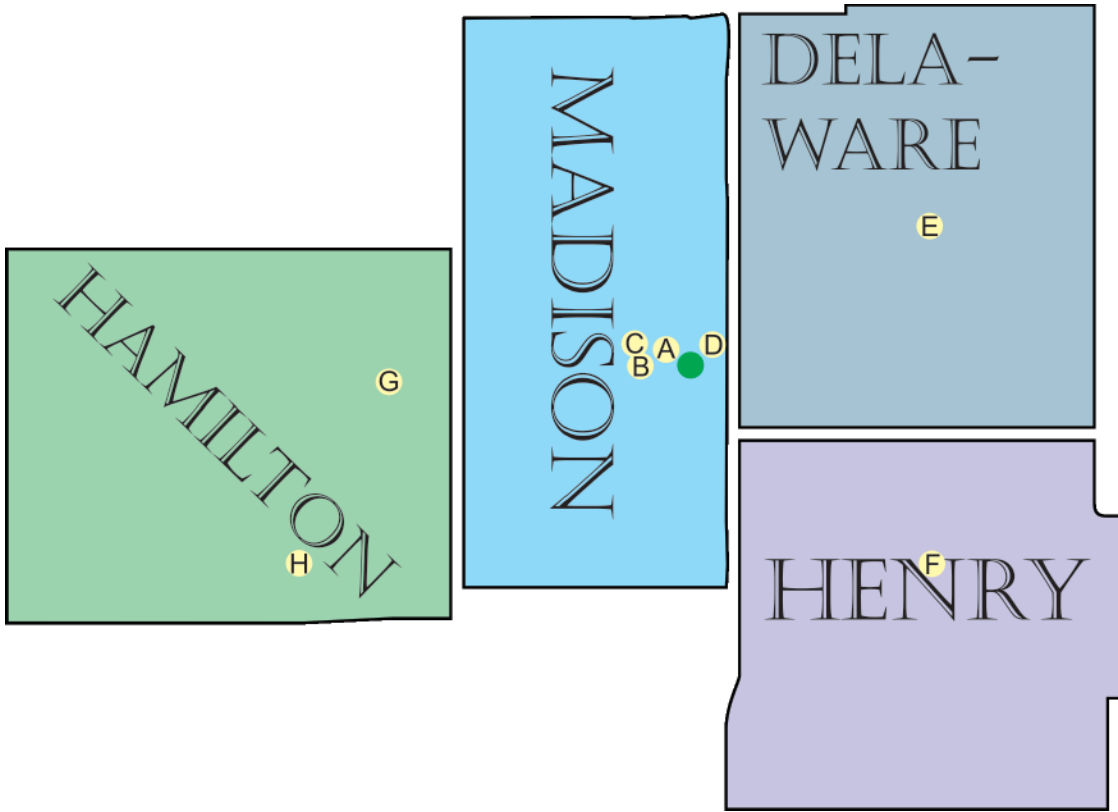
Regional Opportunities

VIII. Theme

Interpretive theme:
The mounds stand as a testament to their builders and those who protect, enjoy and manage them.

Subthemes:

A. Mounds
1. The mound builders and inhabitants who followed had distinct cultures and practices.
2. Constructing the mounds followed a set methodology that required labor, tools and resources.
3. The alignment of the mounds demonstrates an advanced understanding of seasons and movements of celestial objects.

B. Ecosystems
1. The White River provided a trade route and resources for the mound builders.
2. Woodland and wetland ecosystems at Mounds were important resources for the mound builders.
3. Caves in the river bluffs were used by the mound builders and explored by others.

C. Bronnenbergs
The Bronnenbergs were successful in settling the land and in instilling a protection ethic.

D. Amusement Park
Mounds Park and the interurban tracks to it secured the mounds as a popular, protected destination.

E. Mounds State Park
Natural and human impacts on Mounds State Park require proper management to ensure their future for research, education and enjoyment.

IX. Recommendations

A. Introduction
Mounds State Park's existence is due to its prehistoric mounds. The park's story is in the ancient history, the Bronnenberg story, the amusement park and in today's management. Recommendations for interpretation include a focus on the mounds, their protection, attraction and management.

B. Mounds
1. Cultural Resources Management Plan (CRMP)
Mounds State Park is primarily known as a cultural site. The entire park is on the National Registry of Historic Places. This creates additional layers of regulation, oversight and permit requirements before any new construction or resource management can take place. Any projects involving excavation or construction must be approved by the Division of Historic Preservation and Archaeology (DHPA). There can be a six-month waiting period for approval or disapproval from DHPA.

A CRMP, already in preliminary stages, would streamline this process. The park would be mapped with GIS, identifying which areas can be managed, streamlining DHPA clearance. The plan would establish a standard protocol, eliminating application paperwork for each individual project. The plan would also provide an institutional memory of projects.

A CRMP for Mounds State Park is already in outline form. It is recommended that the plan's development continue in order to implement the interpretive recommendations more smoothly and efficiently.

2. Mounds Protection and Restoration
Natural forces and public use are damaging the mounds. Interpretation can play an important role in garnering public understanding and support for mounds protection.

a. Tree removal
Large trees dot the mounds creating a park-like appearance. While these trees are lovely, their roots are anchored deep within the mounds. These trees will fall, pulling their roots up with them. When this happens, the archaeological integrity of the mounds will be destroyed forever.

The best approach is to cut the trees at their bases. Stumps will need to be flush with the ground. Before this can happen, park staff need to conduct an effort to interpret the issue.

Trees on the mounds

Recommendations include:
i. Interpretive Center exhibit
A changeable exhibit space would include information on the issue. Points to make include:

- The scale of damage posed by the trees.
- The historic landscape which was kept treeless for horizon visibility.

The exhibit should be in a high use area such in the Visitor Center entryway. It could consist of a bulletin board with printed information, or an inexpensive sentra panel.

ii. Program for community groups
An interpretive program would be developed for local groups, organizations and agencies. The program would explain the points mentioned in the exhibit in a powerpoint program.

iii.Temporary sign at the Great Mound
A sign at the mounds would explain the issue and management actions.

iv. Press/media packet
An information packet would be prepared and distributed to local media, conservation organizations and other groups who have newsletters. Content would include a press release, photos and reference materials.

v. On-site programs
All programming at the mounds should include a reference to the tree issue. A visual aid could demonstrate the potential damage caused by a tree fall. This aid could be a two-dimensional diagram, or a 3-D model of a tree that can be pulled out, leaving a large gap in the mound.

Root ball of a downed tree

b. Trail delineation
The grounds around the mounds are mowed with scattered trees, making off-trail travel very simple. This, plus a history of trails over the mounds has resulted in human-caused erosion on the mounds. Clearly defining where people can walk will assist with this issue.

i. Fencing and observation deck
Only the Great Mound is protected by fencing. Minimally, Circle Mound and Fiddleback should also be protected by fencing. A raised platform would allow visitors to view the entire mound without walking on it. The current fiberglass embedded signs could be rail mounted to the platform.

ii. Vegetative barrier
Allowing native vegetation to grow along the walkways will keep visitors on designated pathways. Cahokia Mounds in Illinois has done this successfully. Thigh-high vegetation keeps pedestrians on the trails and stairways.

c. Restoring ditch depth
Over the centuries, natural and man-made erosion has lessened the difference between the top of the embankment and the bottom of the ditch. Arhchaeologists estimate that the ditches of some mounds have been filled with several feet of soil eroded from their embankments.

DHPA and BSU can be approached about mound "reconstruction" or "rehabilitation". Fomalhault would be a good candidate for this trial as it is small and easily accessible. The public would help the archaeologist sift dirt to look for artifacts, etc. If successful, there would be projects on other mounds. These projects would be a part of the Cultural Resource Management Plan (CRMP.)

3. Visual Aids

a. Alignment Pathways
Pathways representing the lines of sight between the mounds (solstice, equinox, stars) can be installed. The path location would be similar to those represented in the interpretive center wall exhibit (except

where they cross the mounds). The pathways would be made from permeable paving stones. They would be flush to the ground, for ease of mowing.

These pathways would help explain the relationship between the mounds and how they align with celestial events.

b. Viewing tubes
Viewing tubes provide lines of sight between the mounds. The tubes would be oriented with the celestial events. For example, a viewing tube would be directed from the Great Mound to the point of sunrise on the equinox.

Exhibits illustrating possible pathway lines

4. Programs
a. Astronomy programs
The mounds are aligned with celestial events. This makes astronomy programs a natural fit for Mounds State Park. Special events timed to celestial events such as solstices and equinoxes (events marked by the mounds), would include indoor programs, mounds walks and star gazing. Coordinating with the American Indian Center in Indianapolis would bring in Native American participation.

Since astronomy programs require a certain knowledge base and equipment, connecting with a local astronomy group is important. The following list of area groups will help with making a contact.

http://www.astronomyclubs.com/1/190/16/0/club.aspx
Name: Indiana Astronomical Society, Inc.
Address: 1780 S. Morgantown Rd, Greenwood, IN 46143
Contact: Jeff Patterson Phone: 317-300-0449
Email: kb9srb@hotmail.com
Members: 180 members

Name: Muncie Astronomy Club
Address: 2309 W. Berwyn Rd.
Muncie, IN 47304 USA
Contact: Ron Kaitchuck
Phone: 765-747-9836
Email: rkaitchu@bsu.edu
Members: 35 members

Name: Kokomo Astronomy Club
Address: IUK Observatory, 2300 S. Washington St.,
Kokomo, IN 46902
Contact: Edward Cleaver
Email: president@kokomoastronomyclub.org
Members: 15 members

Indiana Astronomical Society, Indianapolis
Members: 157
http://www.iasindy.org/
events-coordinator@iasindy.org

b. Archaeology.

Archaeology digs have taken place at the park. Ball State University has conducted digs and should be encouraged to do so again. Grants for academic field schools and public digs can be obtained. Having a project in progress will make the mounds come alive. They would provide an opportunity to provide hands-on experiences to visitors or summer camp participants in dig tasks such as sifting and sorting. An archaeology camp would include the interpreter and BSU archaeology students.

c. Dugout Canoes

As a part of an archaeology camp, small-scale (firewood size) dugout canoes could be built using the Adena techniques. The final day of camp would include a dugout canoe race.

C. Bronnenberg House

The interpretive sub-theme related to the Bronnenberg family is: *The Bronnenbergs successfully worked the land while still protecting the mounds*. Interpretive efforts related to the Bronnenbergs need to keep this theme focus.

1. Restoration

The Bronnenberg House offers a wonderful opportunity to interpret the lives of the first property owners. It is also a huge responsibility. Repairing, replacing and restoring an historic structure is an ongoing commitment. Without that commitment, the Bronnenberg House will rapidly deteriorate and become too costly to repair.

a. Roof Repair

Before any further interior work is done, the roof needs to be repaired or replaced. Already, water has damaged the upper floor, leaked to the ground floor and damaged that as well. Recently completed interior work by volunteers has been destroyed by water damage.

The cost of the interior damage will continue to rise until the roof is repaired. It must be done immediately to prevent further expense. No further interior work or acquisitions should proceed until the roof is repaired.

Leaking roof damage

b. National Historic Registry

Mounds State Park is listed on the National Registry of Historic Places. While this includes the whole park, the designation is because of the prehistoric mounds. A separate designation for the Bronnenberg House would bring more attention and funding potential to the home. The Division of Historic Preservation and Archaeology handles registry applications.
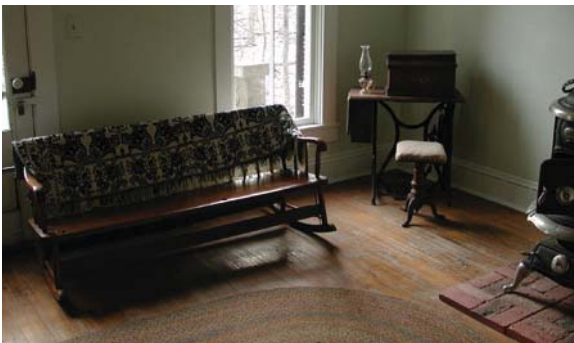
Possible Bronnenberg office

c. Acquisition of period furniture

Furnishings from the 1897 time period are being acquired primarily through donation. A 2008 plan specified the purpose and look for each room. Getting on the National Historic Registry will give credibility to future acquisitions and grant applications.

One room on the ground floor has an outside entrance and

porch. It has been speculated that this room may have served as an office. Restoration efforts in that room could include historic books and maps about the mounds, land maps showing fields that avoid the mounds, etc. This would convey the message of the Bronnenberg's protection of the mounds.

d. Spring House restoration
The Bronnenberg spring house is located in a ravine immediately behind the home. The spring house collapsed but stones and the foundation remain.

Although no photos are available, existing stonework plus research into spring houses from that era should give a good representation of the original.

Restoring the spring house would provide an additional interpretive site for programming.

Spring house remnants

2. Visual Aids
Marking outbuilding locations
The Bronnenberg House was one of several buildings in the farm complex. Other buildings included: a barn, granary, tool shed, corn crib, privy, woodshed, well, summer kitchen, root cellar and chicken house. Exact locations have not been identified, but a map from memory exists. Markers can be fixed to the ground, identifying the four corners of the outbuildings. The markers would be flush to the ground for mowers.

The outbuildings would be used in outdoor programs near the Bronnenberg House. Content would include the exterior features of the house, the spring house, and outbuilding locations. This walking tour would also be developed into a self-guided walk with brochure.

3. Programs.
a. 1800s Skills Programming
Programming related to the late-1800s time period can be conducted in addition to home tours. Demonstrations and workshops on topics such as canning, weaving and music could be conducted at the house and in the interpretive center. Outside expertise can be utilized for conducting programs. For example, 4-H Extension could assist with a canning workshop. It is important to tie the programs with the Bronnenberg Family and their contributions.

b. Archaeology Programs
Similar to the mounds archaeology programs, on-going archaeology work can be conducted to establish Bronnenberg outbuilding locations. Work could also focus on the interurban and the spring house. This would involve Ball State or another archaeology group. The project could be incorporated into public programs and camps, involving public participation.

4. Media
a. Sign Removal
A new sign has been installed at the end of the house walkway. The intent was to replace the older sign by the door so that visitors would view and photograph the house without an obstruction. The old sign is still in place and needs to be removed.

b. Audio in Bronnenberg Home
Audio in each room would provide historic voices. For example, an audio in the office would have Fred-

erick Jr. and a neighbor discussing why he won't plow the mounds. An audio in the dining room would have Ransom telling of plans for an amusement park. This would enhance the docent tours and bring some realism to the rooms. Audio options can be researched.

D. Interpretive Center
1. Facility
a. Orientation Signs
The Visitor Center houses the park offices as well as the Interpretive Center. This functions well in many regards. Other park staff are housed within the same building, providing a presence. The office helps to oversee the gift shop.

One drawback is that visitors are frequently unaware that the Interpretive Center is housed within the Visitor Center. Orientation signs at the front gate and the Visitor Center should clearly identify the interpretive center's location.

b. Lighting. Nearly 50% of the lightbulbs in the exhibit room are burned out. This is creating a dim atmosphere. Some exhibits are difficult to use due to the dark conditions (the leaf interactive, for example).

The vaulted ceiling requires a lift to access the lights. Regularly scheduled maintenance (every six months) would allow management to allocate staff time to the task.

If this is not possible, alternative lighting systems must be considered. A lighting grid on dropped tracks is one possibility. These would be low enough that staff could change bulbs from a ladder.

Another possibility would be the installation of a skylight. A skylight would permit natural light to take the place of electrical lighting.

2. Media
Exhibits
The interpretive center exhibits were installed in 2003. While they have held up well, it is time to evaluate their effectiveness and implement changes. This will keep the exhibits interesting, correct design problems, and repair or replace those that aren't working.

General Comments:
- Maintenance Manual. The interpreter is unaware of any maintenance manual for the exhibits. There are a few exhibits that need repairs, but staff do not know how to access, repair and replace the electronics.
- Changeable exhibit. There are currently no changeable exhibits. Some locations for this are at either end of the history panels. One option is a revolving artifact display using Mounds artifacts (currently stored at the State Museum and Ball State) would allow the public to observe the many artifacts from the park. Replica artifacts of a platform pipe, snyder's point and pottery sherds could also be used.
- Geology exhibits. Geology is an important story at Mounds State Park, however, no exhibit addresses this theme.

(See Exhibit Evaluation p. 30)

3. Programs
Pre-school Scavenger Hunt. An interpretive center scavenger hunt has been successful with students who can read. For younger children, a photo scavenger hunt can be developed. Photo examples could

include the bobcat in the diorama, one of the live turtles, a close-up of an artifact, etc.

4. Amphitheater
The amphitheater behind the interpretive center is small. More seating and a larger stage would help accommodate larger crowds that are currently required to sit on the grass or bring lawn chairs.

E. Live Bald Eagle Exhibit
A bald eagle will be housed within sight of the bird watching room. The eagle is owned and cared for by a local conservation officer, who will use it for park programs.

1. Programs
It will be important that programs relate to Mounds State Park. The bald eagle's history along the White River and the local fish that they eat would relate to the site. There may be other ties to the Adena, such as bird effigies or the use of eggs and feathers in native cultures.

2. Media
A sign about the eagle can be placed in the bird watching room. Information would include: the history of the individual eagle, bald eagles along the White River and other eagle information relevant to the park. The sign can be made of sentra.

Eagle enclosure

F. Campground Program Area
While the Interpretive Center, Bronnenberg Home and most of the mounds are at the southern end of the park, the campgrounds are at the northern end. The interpreter conducts campground programs either from the shower building, Campground Store or the campground host's campsite.

An open-sided shelter would allow the interpreter to better serve the campground audience. The roofed shelter would include seating and a fire ring.

G. Interurban
The interurban station foundation remains, but the wooden roofed station is gone. Photos of the station exist. An application to restore the interurban station was recently rejected by the DHPA. Completed signs will be installed this spring that include photos of the station.

Possible shelter style

Interurban station foundations

H. White River
Canoe Trips
Partnering with a local livery, the park can offer guided canoe trips down the White River. The interpretation

focus of the trips would be on the river ecosystem and environmental issues. River trips should also include the importance of the White River for the Adena-Hopewell in terms of travel, trade and resources.

Exhibit	Image	Evaluation	Recommendations
Live Animal Exhibits		• Laminated paper nameplates were made for additional animal species. Their design matches the existing name-plates, but they are not durable and are peeling. • Due to space, maintenance time and cost, no more animals should be added.	• Replace laminated labels with sentra labels
First diorama		• Taxidermy mounts are within reach of visitors and are being damaged. • Snapping turtle under water is difficult to see. • Background diorama paint-ing doesn't represent central Indiana. • Spinning habitat matching game works well.	• Install angled plexiglass barrier along rail • Install small light next to snapping turtle • Re-paint diroama or replace it with wallpaper mural (see www.muralsyourway. com)
Artifact Search		• Four panels are actually two separate activities, but this isn't understood by visitors. • Content is good.	• Create with a physical divider or color differentiate the two activities
Leaf Display		• Dim overhead lighting is further blocked when a visitor looks though the magnifying lens and creates a shadow. • One microscope has been replaced due to it being yanked from its mooring.	• Install sturdier fixed magni-fying glasses with lights • This exhibit is generic and could be replaced with a more site specific topic such as geology.
Benches		• Provides a good passive seating area. • Provides a good gathering place for groups. • Good tie to theme and relates to exhibits and carpet.	• No changes.

Exhibit	Image	Evaluation	Recommendations
Mounds Wall Exhibit		• Side lights representing sun location don't convey the concept of sunlight direction in relationship to the time of year and the mounds. • Some innaccuracies in mound orientations.	• Replace lights with more directed beams • Add an A/V interactive that demonstrates movement of the sun and turns the beams on at appropriate times.
Mysterious Alignments		• There is too much reading required. • Matching activity is timed, and it takes too long to read the answers. • Good content and information.	• Re-do exhibit using the content as a basis for shorter text. • Incorporate a non-button interactive.
Home Sweet Home		• Works well	• No changes.
Second diorama		• Background diorama doesn't represent central Indiana. • Taxidermy mounts are within reach of visitors and are being damaged.Kids use wall ledge to stand on and reach over the wall • Interactive on animal/plant relationship works, but is similar to Home Sweet Home which is also animal related, uses buttons and is in close proximity. • Laminated paper nameplates are peeling (see Live Animals).	• Install angled plexiglass barrier along rail • Re-paint diroama or replace it with wallpaper mural (see www.muralsyourway. com) • Consider re-doing this diorama space to feature an archaeological dig.
Touch Table		• Text above the touch table obligates certain items to be there. In fact, objects circulate through.	• Re-do text panel to remove reference to specific objects.

Exhibit	Image	Evaluation	Recommendations
Tree ID Pillars (3)		• The question "Can you name this tree?" is at the top of the pillar. The lift door with the answer is at the bottom. People open the lift door without seeing the question. • One side of a pillar is unused and against the wall.	• Move question to flip door lid. • Add third tree to vacant side -- pull this pillar from the wall.
Bird Room		• Nest game works well. • Birds in history panel has too much text. • Bird ID panel works well. • Puppets and kids table are a mixed blessing. Good for parents, but not good for others who want quiet bird observation. There is no other kids area in the building.	• Re-do Birds in History panel with a tie to the site. For example: Bird effigies, uses of bird feathers, turkeys as a part of the Adena diet.
Bird Room View		• Eagle enclosure will need signage. • Native plantings have "moved", so markers no longer correspond. High maintenance.	• Install a sign in the bird room interpreting the eagle • Make a general "Can You Find" bulletin board for the plants -- something that can be changed as plants flower, disappear or appear.
Butter-flies		• Changeable area is currently occupied by a butterfly collections.	• Make more site specific, such as about the Bronnenberg restoration, management issues, geology, etc.

Exhibit	Image	Evaluation	Recommendations
History Wall		• A lot of text • Artifact shape match interactive works well. • No opportunity to rotate artifacts. • Unlabeled artifacts from the Amusement Park at the top of the wall.	• Re-do panels to eliminate long text -- bring it down from 3 panels to 2 panels. • Develop current text into a brochure that can be taken. • Make third panel into a rotating artifact case. • Identify artifacts at the top of the panels.

Phase I with time estimate and reference identifiers

Years to Complete	1	2	3	4	5
Project					
Mounds					
Cultural Resources Plan	X	X	X		
Tree Removal			X		
Tree Removal Interpretation	X	X			
Trail Delineation: fencing and vegetative barrier		X	X	X	X
Viewing tubes		X			
Astronomy events	X	X			
Archaeology dig and related programs	X	X	X	X	
Dugout canoe activity	X				
Bronnenberg House					
Roof Repair	X	X			
National Historic Registry application					
Acquisition of period furniture	X	X	X	X	X
1800s Skills Programs	X	X			
Removal of sign at doorway	X				
Interpretive Center					
Orientation Signs	X	X			
Lighting	X				
Implement exhibit updates	X	X	X	X	X
Pre-school scavenger hunt	X				
Live Eagle					
Tie program content to park themes	X				
Sign for bird watching room	X				
White River					
Canoe trips	X				

Phase II with time estimate and reference identifiers

Years to Complete	1	2	3	4	5
Project					
Mounds					
Restore ditch depth	X	X	X	X	X
Alignment pathways		X	X	X	
Bronnenberg House					
Spring House restoration	X	X			
Marking outbuilding locations		X	X	X	
Archaeology programs		X	X	X	
Audio interactive		X			
Interpretive Center					
Amphitheater expansion	X	X			
Campgrounds					
Program shelter		X	X		

Appendix A: Plant species of Mounds State Park Fen, Abby McCoy, BSU, 2005

Common Name	Scientific Name
Great angelica	Angelica atropurpurea
Groovestem indian plaintain	Arnoglossum plantagineum
Swamp milkweed	Asclepias incarnata
Wheat sedge	Carex atherodes
Button sedge	Carex bullata
Upright sedge	Carex stricta
Blister sedge	Carex vesicaria
Swamp thistle	Cirsium muticum
Red-osier dogwood	Cornus sericea
Bluntspike rush	Eleocharis obtusa
Spike rush	Eleocharis olivacea
Eastern false rue anemone	Enemion biternatum
Water horsetail	Equisetum fluviatile
Horsetail	Equisetum hyemale
Eastern daisy fleabane	Erigeron annuus
Spotted joepye weed	Eupatorium maculatum
Boneset	Eupatorium perfoliatum
Queen of the prairie	Filipendula rubra
Rough bedstraw	Galium asprellum
Marsh bedstraw	Galium palustre
White avens	Geum canadense
Woodland sunflower	Helianthus divaricatus
Harlequin blue flag	Iris versicolor
Tapertip rush	Juncus acuminatus
Two-flowered dwarf dandelion	Krigia biflora
Marsh pea	Lathyrus palustris
Spiked blazing star	Liatris spicata
Creeping jenny	Lysimachia nummularia
Prairie loosestrife	Lysimachia quadriflora
Purple loosestrife	Lythrum salicaria
Sundrops	Oenothera fruticosa
Golden ragwort	Packera aurea
Western panicgrass	Panicum impliatum
Switch grass	Panicum virgatum
Ninebark	Physocarpus opulifolius
Shrubby cinquefoil	Potentilla fruticosa
Common selfheal	Prunella vulgaris
Narrow-leaved mountain mint	Pycanthemum tenuifolium
White oak	Quercus alba
Swamp (marsh) buttercup	Ranunculus septentrionalis

Swamp rose	Rosa palustris
Black-eyed susan	Rudbeckia hirta
Common arrowhead	Sagittaria latifolia
Green bulrush	Scirpus atrovirens
Wild senna	Senna marilandica
Marsh ladies' tresses	Spiranthes odorata
Skunk cabbage	Symplocarpus Salish.
Virginia spiderwort	Tradescantia virginiana
Eastern marsh fern	Thelypteris palustris
American basswood	Tilia americana
Narrow-leaved cattail	Typha angustifolia
Slippery elm	Ulmus rubra
Beaked conrnsalad	Valerianella radiata
Riverbank grape	Vitis riparia
Golden alexanders (zizia)	Zizia aurea