



Foundation Document Overview

Mammoth Cave National Park

Kentucky



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Contact Information

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Purpose



The purpose of MAMMOTH CAVE NATIONAL PARK is to preserve, protect, interpret, and study the internationally recognized biological and geologic features and processes associated with the longest known cave system in the world, the park's diverse forested, karst landscape, the Green and Nolin rivers, and extensive evidence of human history; and to provide and promote public enjoyment, recreation, and understanding.

Park Description

Mammoth Cave has represented the challenge of the unknown for millennia, from the time the first American Indian explorers ventured inside some 5,000 years ago to the cave's rediscovery by European settlers at the turn of the 19th century, and still today as explorers, scientists, and visitors from the United States and around the world brave its shadowed chambers in search of wonder and new knowledge. Named for the enormity of its "mammoth" subterranean vaults and the unparalleled extent of its passages, Mammoth Cave is the longest known cave system in the world with 400 miles surveyed to date.

In 1941, Mammoth Cave's superlative qualities led the Southern Appalachian National Park Commission to recommend that the cave be made into a national park along with other national treasures such as Great Smoky Mountains and Shenandoah. The Mammoth Cave National Park Association and the Kentucky National Park Commission began the necessary, and unprecedented, 15-year process to convert settled areas into parklands, and once congressional requirements were met, Mammoth Cave National Park entered the national park system.

Today, Mammoth Cave National Park (the park) comprises approximately 52,830 acres in Edmonson, Hart, and Barren counties in the Commonwealth of Kentucky. Visitors are drawn to the park by its caves, scenic river valleys, bluffs, forests, and abundant wildlife. The park offers ranger-led cave tours and surface walks, camping, hiking, horseback riding, bicycling, scenic drives, canoeing and kayaking, fishing, accessible trails, and picnicking. This breadth of activities is available because Mammoth Cave National Park is a park on two levels—reclaimed hardwood forest and winding riverways above, and complex cave systems below.



For good reason, Mammoth Cave’s cavernous limestone or “karst” features draw the most interest. In karst terrain, everything that happens on the surface affects the caves below—surface and subsurface are intricately bound together and water is the binding thread through all aspects of the park. Rainwater enters the underground river system through cracks, crevices and thousands of sinkholes, some up to 10 miles outside the park boundary, and eventually emerges through springs into the Green River. Over millions of years, water has slowly cut and dissolved its way deeper into the landscape, leaving upper levels of dry cave behind; underground rivers at the water table are still carving new passages today. Myriad related geologic processes contribute to the formation not only of the extensive Mammoth Cave / Flint Ridge / Roppel Cave system, but to hundreds of smaller caves in the park, as well as numerous other karst features. Within the subterranean spaces, the interplay of water and mineral has produced remarkable formations in stone, some of them breathtaking in their beauty and fragility.

The mosaic of habitats and diversity of forests types, grasslands, and caves supports more than 1,300 plant species and is home to more than 70 threatened, endangered, or state-listed species. Mammoth Cave is recognized as having one of the most diverse karst biota in the world, including more than 40 species that spend their entire life in the cave and almost 100 others that can readily be found in the caves. Thirty-six species of animals have been described from park caves.

Yet even without the world’s longest cave system, the land within Mammoth Cave National Park would merit national park status simply for its extraordinary density and diversity of plant and animal life. The park has one of the most biologically diverse river systems in the nation. Historically, more than 70 mussel species inhabited Green River, where today that number has been reduced by approximately 20 species and many of those remaining are imperiled. Even so, Green River still holds one of the most diverse populations of mussels in the eastern United States. Approximately 150 species of freshwater fish are known from the entire extent of the Green River.

In addition to extensive natural resources, the park offers a rich cultural history. Archeologists believe prehistoric people entered the cave approximately 5,000 years ago and the cave’s stable atmosphere and protection from disturbance preserved their discarded torches, sandals, and gourd bowls. After the cave’s rediscovery by European settlers, the cave saw several uses, but quickly became a magnet for tourists from the United States and abroad, beginning its first commercial tours in 1816. Some of the early cave guides were slaves, including Stephen Bishop, Mat Bransford, and Nick Bransford, who discovered many of its famous passages. The park also contains nationally significant historic structures, including 1812-era mining works for saltpeter (an ingredient for gunpowder that influenced the history of the nation during that period), churches built in the 19th century, and structures built by the Civilian Conservation Corps (CCC) in the 1930s.



The cultural and natural resources protected within this national park are national treasures. In recognition of these world-class resources, the park has received two international designations. In 1981, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Mammoth Cave as a World Heritage Site. In 1990, the Mammoth Cave Area International Biosphere Reserve was designated (with all park acreage included in a core 112,800-acre area) and it was expanded to 909,328 acres in 1996.

Explorers continue to discover the secrets of Mammoth Cave, and visitors to this national park continue to be drawn to its diversity, its beauty, and its mystery, as they have been since prehistory.

Significance

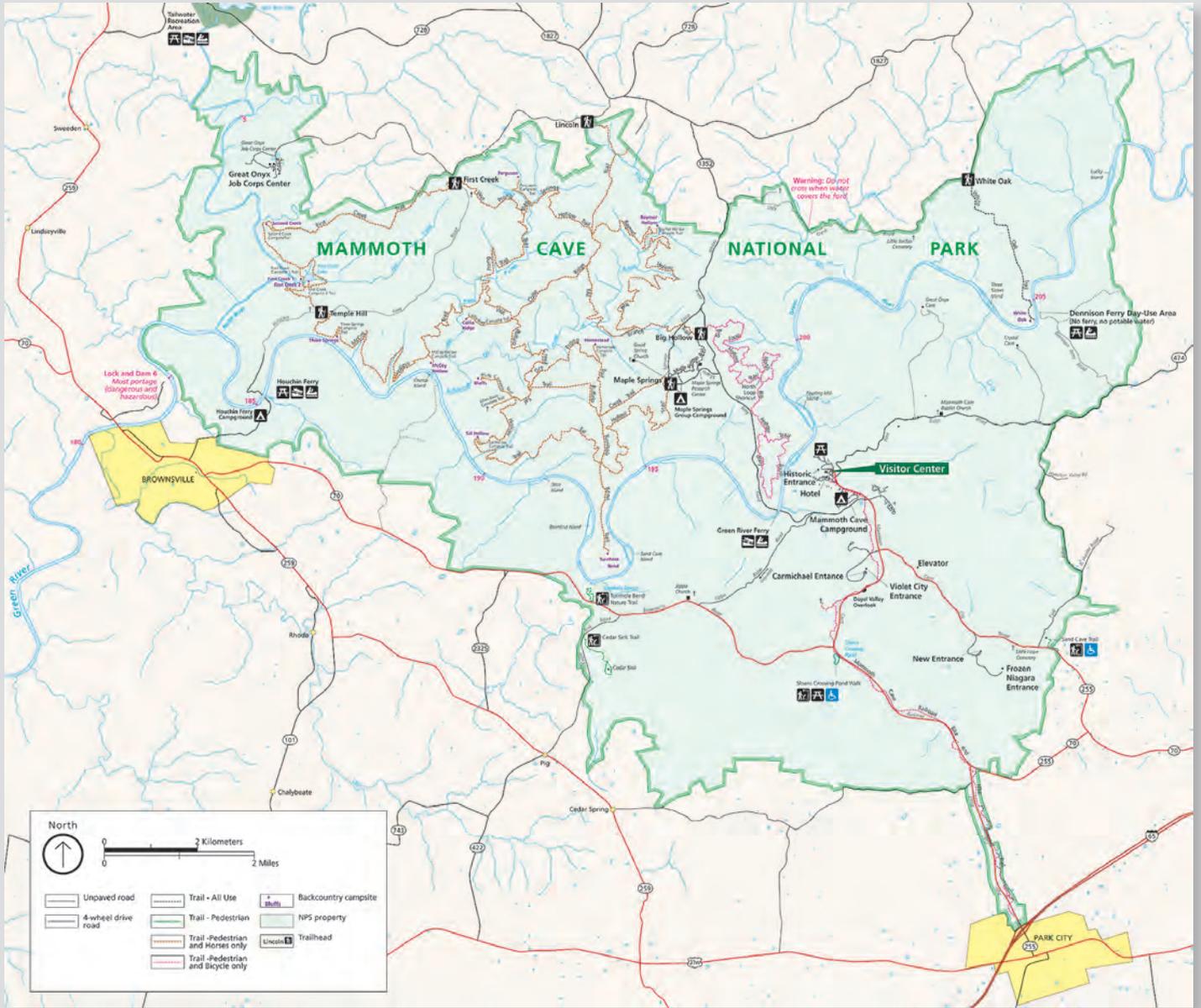
Significance statements express why Mammoth Cave National Park resources and values are important enough to merit national park unit designation. Statements of significance describe why an area is important within a global, national, regional, and systemwide context. These statements are linked to the purpose of the park unit, and are supported by data, research, and consensus. Significance statements describe the distinctive nature of the park and inform management decisions, focusing efforts on preserving and protecting the most important resources and values of the park unit.

- Mammoth Cave National Park is both a UNESCO World Heritage Site and the core of an International Biosphere Reserve, primarily due to its globally significant karst resources. The park protects the world's longest known cave and more than 400 other caves that contain features that are superlative examples of their types. The park has one of the highest diversities of cave-adapted organisms in the world. The park's interrelated cave and surface karst features are superb, with textbook examples of the karst process including drainage systems, vast recharge areas, sinkholes, and complex networks of conduits and springs. For more than 200 years, the cave system has been a laboratory for multiple disciplines and has served to explain fundamental principles of speleology, hydrology, cave biology, and cave archeology.



- Mammoth Cave National Park's range of topography and location at the juncture of the Shawnee Hills / Western Kentucky Coal Fields and Mississippian Plateau (which includes the Dripping Springs Escarpment) regions, dissected by the Green and Nolin rivers, creates an interrelationship of the surface and subsurface ecosystems with exceptional diversity of landforms, habitats, life forms, and functions. The diversity of habitats protected in the park provides sanctuary for a wide variety of flora and fauna communities; some of these communities are endangered and of international significance. Abundant flora and fauna provide opportunities for valuable scientific research, including one of the most studied cave biota in the world.
- Mammoth Cave National Park contains well-preserved cultural resources, both in the caves and above ground, spanning the last 12,000 years. These include evidence of cave exploration; American Indian early plant domestication; prehistoric and early historic mineral mining; pioneer settlements; sites related to early American wars; and engineering and design related to 200 years of tourism and park development. The remarkable integrity of cultural resources in Mammoth Cave National Park has and continues to inspire exploration, educational outreach, and scientific research.
- The Green River is the master stream controlling the geologic development of Mammoth Cave and its world-class karst ecosystem. Springs along the Green River provide opportunities to experience the intersection between the surface and subsurface environments. Within the park, the Green River bisects two physiographic regions and supports one of the most biodiverse aquatic communities in North America. The scenic Green and Nolin rivers provide significant opportunities for scientific study and recreation within the forested karst landscape.
- Mammoth Cave National Park has been an internationally known destination for more than 200 years. The park, located within a day's drive of half of the U.S. population, offers a wide range of recreational and educational opportunities amidst the diverse cave system, outstanding scenic rivers, hilly country, and abundant wildlife. On ranger-led tours, visitors learn of the connection between the park's surface and subsurface and hear stories of the people who lived here for thousands of years. Generation after generation of park visitors return time and again to rekindle emotional and personal connections with the rich cultural and natural history of the park.

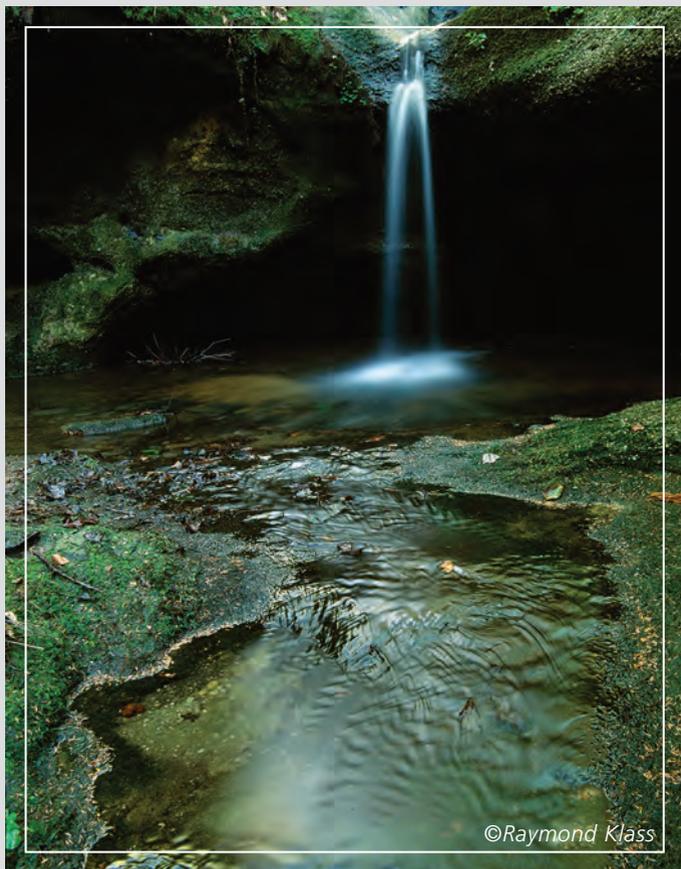
Park Map



Fundamental Resources and Values

Fundamental resources and values are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to merit primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance.

- **World-class Karst.** Mammoth Cave's karst landscape is internationally renowned. It showcases the geologic and hydrologic processes linking the surface and subsurface environments. The park contains an incredible density of extensive caves, including the world's longest at over 400 miles, 10 others more than one mile long, and more than 400 smaller caves. The cave contains large passages, vertical shafts, stalagmites, stalactites, splendid gypsum flowers, delicate gypsum needles, rare mirabilite flowers, and other natural features. Many of these are superlative examples of their type. The cave's environment preserves fossilized remains, traces of past human uses, and protects one of the highest biodiversity of cave-adapted organisms in the world.



- **Scientific Exploration and Discovery.** The park is the core of one of the most studied karst areas of the world. More than 5,000 years of exploration has led to present understanding of the complexity of the park's caves. Since the early 1800s, Mammoth Cave has served as an important destination for scientific discovery. Survey and mapping efforts have documented more than 400 miles of interconnected cave passages. Past and ongoing research at the park has been conducted in a wide range of disciplines from history, archeology, and social sciences to the physical and biological sciences. Thirty-six species of animals were first discovered and scientifically described from park caves. Ground-breaking research has shaped the fundamental principles of speleology, hydrology, cave biology, and cave archeology. The more than 1,200,000 objects in the park's museum and archival collections record Mammoth Cave's natural and cultural history. This ongoing tradition of inquiry dynamically shapes park education, interpretation, and outreach.



- **Underground Time Capsule.** The caves in Mammoth Cave National Park are an exceptional time capsule due to specific environmental conditions and limited disturbance, which have preserved fragile, perishable materials within a distinctive cultural landscape. The cave preserves the footprints and evidence of American Indian exploration beginning about 5,000 years ago, extensive mineral mining beginning around 3,000 years ago, and evidence of early plant domestication. Saltpeter mining was a major industry during the War of 1812, leaving behind one of the best-preserved saltpeter works from that era. Evidence from 200 years of economic endeavors and tourism includes historic signatures, structures, monuments, and construction for visitor access at a number of caves in the park.



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- **Twelve Thousand Years of Human Interaction with the Land.** Mammoth Cave National Park preserves cultural resources, objects, and landscapes, above and below ground, that remain important touchstones of cultural identity and heritage. An array of archeological sites, including rock shelters, burials, and early agricultural sites document American Indian presence in the area beginning 12,000 years ago. Many contemporary area families maintain direct ties to the rural communities that existed prior to park establishment through the remaining churches, cemeteries, home sites, objects, and cultural landscapes associated with historic settlement. The park also preserves extensive cultural resources related to 200 years of cave tourism, transportation, and park development.

- **Water Shapes the Landscape.** The flowing water of the Green River is the most dominant force shaping the regional landscape characterized by deep valleys and well-incised meanders cutting through the geologic sequence. The Green and Nolin rivers are ancient channels, predating the earliest cave development. Ultimately, caves drain to the Green River creating important springs. The cave streams in the park are designated Outstanding National Resource Waters, and the park's underground drainage basins are designated as Outstanding State Resource Waters, extending outside of the park's boundary. The Green River is designated as an Outstanding State Resource Water and a state Wild River, providing significant scenic and recreational opportunities. The Green and Nolin rivers support one of the most diverse fish and invertebrate faunas in North America.

- **Opportunities for Connection to the Resources.** The very nature of Mammoth Cave allows visitors to personally interact with interpretive rangers who provide the necessary protection to cave resources and the visitors themselves. Park visitors choose from a wide range of educational and interpretive opportunities, such as ranger-led cave tours or relaxing campfire programs.

Visitors enjoy a wide range of recreational opportunities such as hiking, biking, horseback riding, or floating, canoeing, kayaking, and fishing the rivers. Visitors, volunteers, and researchers explore and discover the park's natural and human history and in turn explore their own physical abilities and mental, emotional, and spiritual interests.

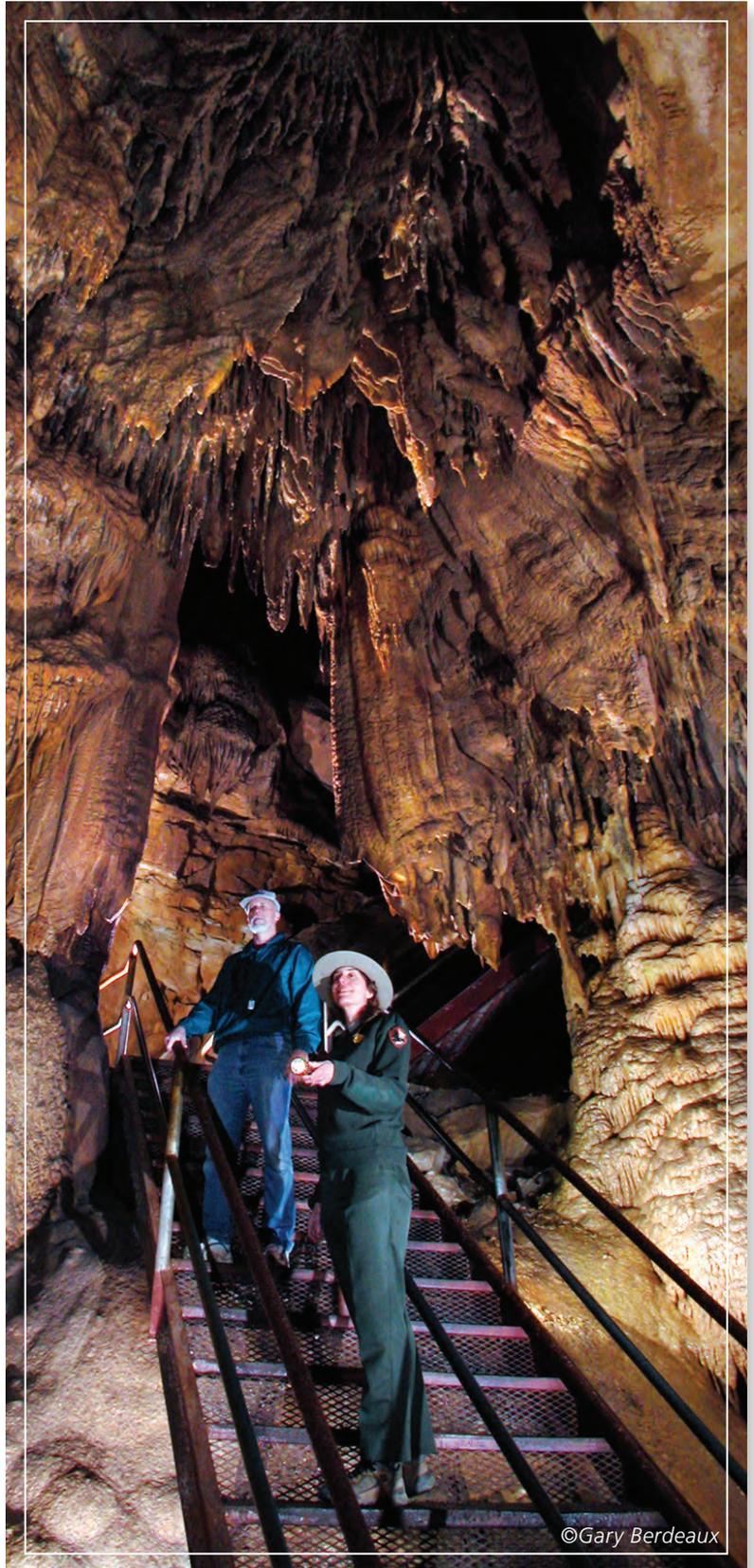
- **Biodiversity.** Mammoth Cave National Park is home to a diversity of habitats and life forms, including several threatened and endangered species. Of the more than 130 species of fauna within park caves, some are known to exist only within the Mammoth Cave area, such as the federally endangered Kentucky cave shrimp. There are 13 species of bats, including 3 federally endangered species. The Green and Nolin rivers possess one of the most diverse fish (82 species) and invertebrate faunas (51 species of mussels, including 7 federally endangered species) in North America. The combination of the topographic variety associated with the karst landscape and the temperate climate of the region provides a number of ecological niches that support an exceptionally diverse assemblage of more than 1,300 vascular flora species, including unusual communities.

- **Natural Resource Quality and Function.** Mammoth Cave National Park is designated as a World Heritage Site and International Biosphere Reserve because of the outstanding quality of resources. Designated as a Class I area under the Clean Air Act, as amended in 1977 and 1990, the park provides special protection for air quality, sensitive ecosystems, and clean, clear views. Green River is designated an Outstanding State Resource Water. The quality of air, water, vegetation, and wildlife resources are preserved and protected in an environment dominated by natural processes. The park backcountry provides wilderness character through opportunities to experience solitude and remoteness from civilization.

Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all of the park significances and fundamental resources and values.

- The Mammoth Cave landscape shelters an underground labyrinth unmatched in size and complexity; the mysteries of this diverse natural laboratory have inspired human discovery for thousands of years.
- We share with our ancestors an avid curiosity and sense of wonder that guides us to experience adventure and excitement, create works of imagination, and explore the unknown.
- Knowledge from ongoing scientific endeavors in the Mammoth Cave area helps to alleviate threats to the park's resources, expand understanding of complex natural systems, and enrich the visitor experience.
- For more than 12,000 years people have interacted with the Mammoth Cave landscape using natural resources to ensure their survival and improve their quality of life.
- The ever-changing karst landscape of south central Kentucky exemplifies the power and persistence of water through time in creating the world's longest known cave system, Mammoth Cave.
- The diverse flora and fauna of Mammoth Cave National Park, some of international significance and endangered, is faced with external and internal challenges that not only affect visitor use and management of the park, but the very survival of those species.



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