THE VILLAGES GEM & MINERAL SOCIETY – Field Trip Information

WISCONSIN

Badger Mine and Museum

279 W. Estey St, Shullsburg, WI
608 965 4860 shullsburgwisconsin.org/shullsburgbadgerminemuseum.htm

In 1818, a young man name Jesse Shull began buying furs for John Jacob Aster of the American Fur Co. He was sent to the Fever River in the summer of 1819 and built a trading house where Perry Street in Galena Illinois is now. From this Galena IL trading house, he followed the Indian trails in search of better locations. His first camp, where Shullsburg WI is now located, was made in 1820-21. During this time he was also investigating the mining lands of the area and in the summer of 1826 he was shown by Indians locations of rich ore deposits. A migration of miners followed, the first of which were called Badgers because many lived in holes they dug in the ground

Take a guided tour of the Badger Mine & Museum. Newly renovated in 2006, the museum contains artifacts from Shullsburg's 179 year history, and shows how life was in Wisconsin's early mining communities. Exhibits focus on some of Shullsburg's most important industries, including mining and cheese making, but also on day-to-day life through the decades.
See the recreated shops and exhibits of the early mining town. Gaze at the early mining tools, ore specimens and learn the methods used to extract lead with the pick, gad and black powder.

The museum's newest acquisition, a fully functional replica of the Eagle Pitcher Mine, which operated near Shullsburg, offers a glimpse at how more modern mines functioned, until their closure in the 1970s.

After soaking in Shullsburg's history, descend 51 steps with your tour guide into a hand-dug nineteenth century lead mine. Although the tour route provides ample open space, you can marvel at the small side tunnels and wonder how men could work within such confined spaces.

A functioning model of the Eagle Picher Mine, which operated in nearby Galena, now displayed at the Badger Mine & Museum

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Cave of the Mounds

2975 Cave of the Mounds Rd, Blue Mounds, WI
608 437 3038 caveofthemounds.com

Visitors enjoy the Cave's constant 50-degree temperature that makes the cave feel cool in the summer and warm in the winter Tours pass a stunning array of colorful crystal formations including colorful stalactites, stalagmites, and columns on paved lighted walkways. Visitors also enjoy our Gemstone Mine, Fossil Dig, Butterfly Gardens, Amazing Rock/Gift Shops, Hiking/Biking Trails, Snack Bar and Picnic Area.

Cave of the Mounds takes its name from the Blue Mounds, two large hills which have long been Wisconsin landmark features. The West Mound, at 1716 feet, is the highest point in Southern Wisconsin; the East Mound reaches 1489 feet. Cave of the Mounds lies under the southern slope of the East Mound

The story of the geologic formation of the Cave of the Mounds begins with the creation of the rock in which the Cave formed. The Cave was formed within limestone, a sedimentary rock formed from compacted seashells and other marine sediments. This rock dates back Calcite Crystal over 400 million years to the Ordovician Period of the Earth's geologic history. During the Ordovician Period, warm shallow seas covered the continent where we find Wisconsin today. Abundant shell life could thrive in these seas.

Layers and layers of calcium carbonate shell debris accumulated and slowly hardened into the limestone we see today. Thousands of feet of limestone and other sedimentary rocks were laid down during this Ordovician Period. Millions of years ago, the seas receded leaving these layers of rock behind and erosion began to wear them down. Today the exposed rock in Blue Mounds is a limestone called Galena dolomite, which is a specific kind of limestone containing at least 20% magnesium.

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Cave of the Mounds (Continued)

Cave of the Mounds itself began to form 1 or 2 million years ago when the Galena dolomite was still beneath the water table. The water table is defined as that level below which all of the rock is saturated with water. Often, the top layer of the water table becomes acidic because rainwater and melting snow absorb carbon dioxide as they seep through surface soils. The water combines with the carbon dioxide to form weak carbonic acid, which can dissolve limestone and create cavities within the rock. When a major crack lets large amounts of acidic water into the limestone below the water table, large amounts of rock dissolve along this crack. This is what happened at Cave of the Mounds. The Cave was formed along a major crack that can still be seen

The story of Cave of the Mounds does not end with the dissolution of limestone to form the hollow cavern. Even as the dolomite beneath the ground was being dissolved to form the Cave, surface streams were eroding deeper and deeper valleys in the landscape. As the stream levels lowered, so did the water table. Eventually, the water table dropped below the level where the cave had been formed. Now, the large natural cavity far below the earth's surface was filled with air. This allowed a new stage in the life of the Cave to begin.

When surface water seeps through the soil and then through the porous rock, it dissolves small amounts of the limestone (also called calcium carbonate). Every droplet of water entering the cave below carries dissolved calcium carbonate. As the water drops enter the air-filled cave, this calcium carbonate is precipitated in the form of calcite. Each drop leaves calcite crystals on the cave ceiling, walls or floor. The crystals adhere to each other and grow into different kinds of formations, called speleothems. Eventually, stalactites reach down from the ceiling, stalagmites tower upward from the floor, and sheets of flowstone cover the walls.

Speleothems grow very slowly. The rate of growth depends on how fast the water flows and on how much dissolved calcium carbonate it contains. It can take from 50 to 150 years to deposit one cubic inch of "cave onyx". This process continues today - a design forever in process and never complete.

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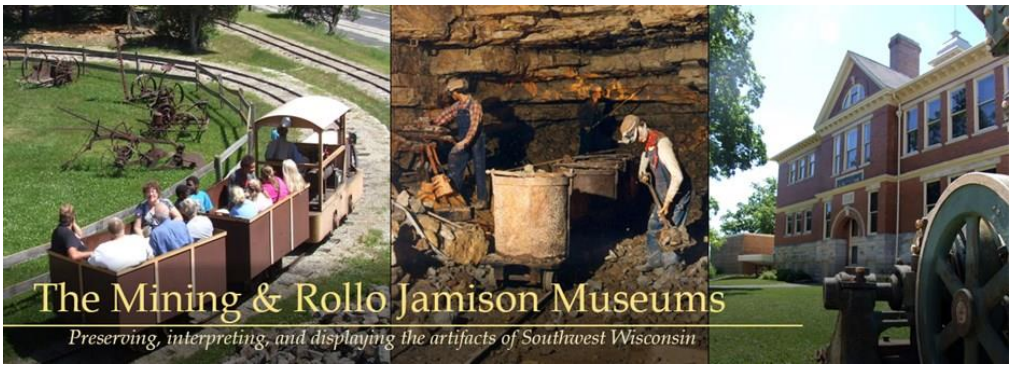
The Mining and Rollo Jamison Museums

405 E. Main St, Platteville, WI
608 348 3301 http://mining.jamison.museum



The Mining and Rollo Jamison Museums pursues excellence in regional and mining history. We are located at the eastern end of Platteville's Historic District. Visit us to tour of the 1845 Bevans Lean Mine, ride in a 1931 mine train (weather permitting), and learn about the local history of Platteville and lead and zinc mining of the Upper Mississippi Valley.

Our exhibits focus on the history of mining and the people of Platteville and Grant County. Exhibits in the Mining Museum building trace the development of lead and zinc mining in the Upper Mississippi Valley Lead and Zinc District from its beginnings in the 1820s until active mining ceased in 1979. Through dioramas, photographs, maps, and artifacts you will learn how lead and zinc were mined and processed into useful items of everyday life.

Exhibits in the Rollo Jamison galleries explore the personal collection of Rollo Jamison. Rollo Jamison, born in Beetown, Wisconsin in 1899, started collecting arrowheads on his family's farm. This was just the beginning of his life-long interest in history and the objects used by people in their everyday lives. Rollo's collection grew over the years, representing the unique history of Southwest Wisconsin. Your tour will take you back to the turn of the 20th century for a look at what life was like in Platteville and southwest Wisconsin.