

WHERE THERE IS ROCK WRITING

Visitors to Pictograph Cave State Park will discover a site rich in scenic beauty, prehistoric images, and early American Indian culture. BY MICHELLE MURPHY

People flocked to Pictograph Cave State Park last year, doubling attendance from 2008. The attraction? A newly opened visitor center, which complements the park's picnicking, hiking, wildlife watching, and educational opportunities.

Interest in the site may be growing, but it's nothing new. The three caves—Pictograph, Middle, and Ghost—have been luring people for more than 9,000 years.

The natural shelters are nestled in a sandstone bluff on a well-traversed path extending south from the confluence of Bitter Creek and the Yellowstone River, 6 miles south of Billings. The cave complex has long been a site of mystical power, a culturally significant gathering place for American Indians. On the interior wall of Pictograph Cave (the only one containing rock art), archaeologists discovered more than 100 pictographs, painted between 2,145 and 200 years ago. They also found stone and bone tools, moccasins, arrow shafts, basketry, grinding stones, and fire-starting tools. Excavations turned up jewelry too, such as pendants, bracelets, and beads beautifully crafted of seashells acquired from Pacific Coast Indians. "It's an amazing assemblage of artifacts," says Montana Fish, Wildlife & Parks archaeologist Sara Scott. "It's informa-

tion about life in prehistory, and it builds a picture of who these people were."

Scientific documentation of the cave's contents began in 1937. Archaeologist H. Melville Sayre, president of the Montana Society of Natural History and an instructor at the Montana School of Mines in Butte, investigated artifacts found by local residents at Pictograph Cave, then known as Inscription Cave. In this largest of the cave trio, a Works Progress Administration (WPA) crew documented 106 rock art images painted in white, black, and red. At the time, archaeologists did not fully realize the significance of pictographs. (The Lascaux Cave paintings in southwestern France were not identified until 1940, setting off worldwide interest in rock art.) But Sayre and his crew apparently knew they had found something significant and made full-scale drawings of the images.

Sayre brought in an amateur archaeologist, Oscar Lewis, and, with the help of WPA workers, they undertook a major excavation, uncovering tools, jewelry, animal bones, and hearths of ancient fires. (A dotted black line, still visible in Pictograph Cave, marks soil levels before the

excavation.) Trained archaeologist William T. Mulloy replaced Sayre in 1940 and took the lead in the excavation. According to rock art expert and retired New Mexico State University anthropology professor Lawrence Loendorf, Mulloy contributed significantly to archaeology when he devised a chronology based on where artifacts were found in successive layers on the cave's floor and how the artifacts' technologies changed. "Archaeologists in the Northern Great Plains are still using his chronology to date the artifacts they find," Loendorf says.

The excavation and Mulloy's study ended in 1941 with the advent of World War II. By

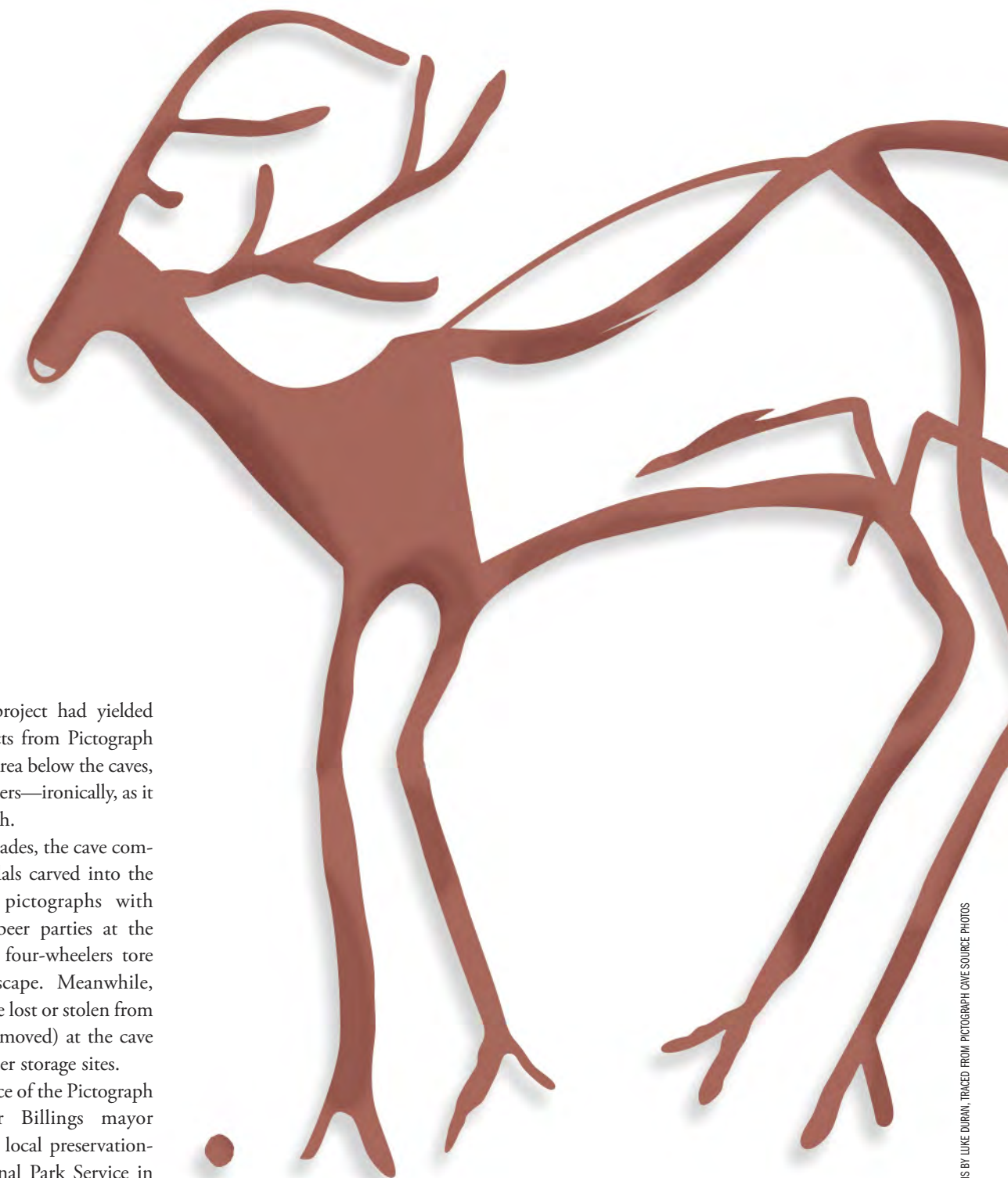


EARLY PROGRESS Unemployed men, put to work through the Works Progress Administration, served as the field crew for excavations at Pictograph Cave (then known as Inscription Cave) from 1937–41.

then the WPA-funded project had yielded more than 30,000 artifacts from Pictograph and Ghost caves and the area below the caves, named by early white settlers—ironically, as it turned out—Empty Gulch.

For the next several decades, the cave complex was neglected. Vandals carved into the rock art and covered pictographs with graffiti. Teenagers held beer parties at the sacred site. Pickups and four-wheelers tore across the fragile landscape. Meanwhile, thousands of artifacts were lost or stolen from a museum built (since removed) at the cave complex in 1939 and other storage sites.

Grasping the importance of the Pictograph Cave complex, former Billings mayor Willard Fraser and other local preservationists convinced the National Park Service in 1964 to designate the site as a National Historic Landmark. The area was managed by the city of Billings until 1969, when it was named Pictograph Cave State Historic Site by the Parks Division of what was then the Montana Fish and Game Department. In 1991 it became Pictograph Cave State Park. Over time the department landscaped the site, built a hiking trail and picnic area, and installed outdoor interpretive panels.



Unfortunately, the majority of the park's namesake pictographs have all but disappeared. The combination of vandalism, natural fading, and water damage has affected roughly 85 percent of the rock art images. That makes the replications from the late 1930s especially valuable. "Otherwise, we'd have no record of the many

pictographs that are no longer visible," says Darla Bruner, Pictograph Cave State Park manager. Visitors can view the reproductions on outdoor interpretive signs and throughout the visitor center.

The park offers many other amenities. Bruner considers the cave complex a living museum of natural history—the rare place

ILLUSTRATIONS BY LUKE DURAN, TRACED FROM PICTOGRAPH CAVE SOURCE PHOTOS

where rock art remains accessible to the public—roughly 20 pictographs are still visible—and where visitors can immerse themselves in the site’s historical and sacred significance. For much of the year, the park bustles with activity. Visitors view the remaining rock art images in Pictograph Cave and try to sense spirits in Ghost Cave. Many follow the short hiking trail, looking for birds and other wildlife. Over 60 bird species have been documented at Pictograph Cave State Park, making it a designated stop on Custer Country’s Southeastern Montana Birding Trail. Visitors commonly see wild turkeys pecking the ground for insects, red-tailed hawks soaring overhead, and songbirds flitting among shady cottonwoods.

In spring and fall, busloads of inquisitive schoolchildren come to learn about the rock

Michelle Murphy is a writer in Helena.

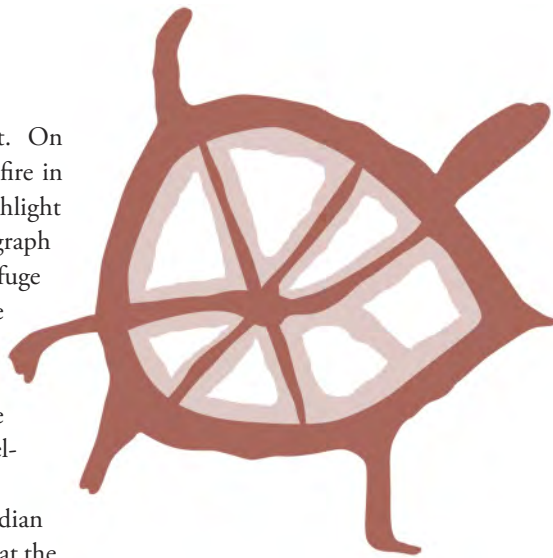


WHERE THERE IS WILDLIFE TOO Catherine Lynch, a science education consultant with Billings-based Mad Science, presents a summer family program on the park’s snakes and reptiles.

art and the people who created it. On Halloween, visitors gather for a campfire in the picnic area, and Bruner leads a flashlight hike along the trail. In winter, Pictograph Cave State Park is a quiet place of refuge and solitude, snuggled against the snow-dusted rims and visited primarily by jackrabbits, mule deer, coyotes, and the occasional bald eagle straying south from the nearby Yellowstone River.

This May, says Bruner, Crow Indian interpreters will erect a traditional tipi at the park. The Yellowstone Valley Amateur Astronomers will offer three public stargazing opportunities—in mid-April, late August, and mid-October.

Loendorf, who grew up in Billings, says he spent memorable days as a boy exploring Pictograph Cave. He continues to visit whenever he’s in the neighborhood. “There are other



places [in the West] with more visible rock art,” the anthropologist says, “but Pictograph Cave has easy access and a pristine setting. You get a sense of the open space and the caves as they existed thousands of years ago.”

Another longtime visitor is Barney Old Coyote Jr., of Billings. The Apsáalooke (Crow) elder and historian visited the cave complex as a boy and remembers meeting Mulloy. He says the archaeologist hired his father, Barney Old Coyote Sr. as an interpreter so that Apsáalooke elders could help explain the pictographs. “Some of the drawings were so old even the elders couldn’t identify them,” Old Coyote recalls. “Pictograph Cave has been here since the beginning of our tribal memory.” According to Old Coyote, the Apsáalooke believe Pictograph Cave is a place with great power, where war parties and hunters left offerings and sought blessings for their ventures. “They didn’t question the source of the power,” he says. “They acknowledged the power and honored it. We still do.”

Apsáalooke phrases refer to Pictograph Cave as *Ammaáhpawaalaatuua* (“Where there is rock writing”) and *Alahpaláaxawaa-*

KENTON ROWE, OPPOSITE PAGE; KENTON ROWE



BIG BLUFFS Visitors take in the splendor of Pictograph Cave, one of three large caves naturally carved out of an 80-million-year-old Eagle Sandstone formation south of Billings.

Peace in darkness

Barney Old Coyote Jr. of Billings, an Apsáalooke elder and historian, tells the story of how Pictograph Cave also became known to the Crow people as “The place where they counted coups on each other.”

(Counting coups means to physically touch an enemy and escape without harm):

“One night, many years ago, an Apsáalooke man sought shelter in Pictograph Cave. It was very dark. He knew he wasn’t alone. Another man, also in the cave, was aware of the Apsáalooke man, but he couldn’t see, either. Each moved about in the dark trying to find the other. Soon, they touched. Neither could speak the other’s language. The Apsáalooke man took the stranger’s hand and brought it to his head. His hair was tied in a roach, characteristic of the Apsáalooke, so the stranger knew he was Crow. The stranger took the hand of the Apsáalooke man and ran it across his throat, indicating he was a Cutthroat, or Lakota. The men made an uneasy, midnight truce. By daybreak, the Lakota man was gone, leaving the Apsáalooke man to tell the tale.”



KENTON HOWE

waalaatunna (“Where there is ghost writing”). The cave complex sits in the heart of traditional Crow country, which once extended from Wyoming’s Wind River north to the Musselshell River, and from the badlands of eastern Montana west to the Crazy Mountains.

A new sandstone-hued visitor center, which opened in 2009, is the park’s latest attraction. Inside the 2,900-square-foot, energy-efficient building are interpretive displays, restrooms, a gift shop, and a meeting room. The displays contain replicas of arrowheads, dart points, and spear points found at the site at different periods of human occupation. (The originals are stored at the Montana Historical Society and other facilities.) The oldest and most intricately detailed projectile, an ivory-colored point likely lashed to the end of a hand-thrown hunting spear, dates back nearly 9,000 years. A small, sharp obsidian point represents the most recent period of occupation, from roughly 1,500 years ago until about 150 years before the present. The size and shape are consistent with smaller arrowheads used by hunters on horseback.

Another artifact replica is a diminutive black turtle effigy, the size of a quarter, carved into a charred bone. Turtles, a symbol of

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ARC-ITECTURE Right: Architects designed the roof line of the new visitor center to mimic Pictograph Cave’s ceiling arch. Top: Many older images in Pictograph Cave have faded, but more recent pictographs, such as one showing a series of seven rifles, are still discernable. Below: An interpretive display on early technology inside the center.



MONTANA FWP



MONTANA FWP

Pictograph’s sloughing walls: preservation and problems

BY CHRISTINE HENSLEIGH

Some 9,000 years ago, small bands of nomadic people—most likely family units—congregated at the Pictograph Cave complex. Early humans in the western hemisphere followed vast herds of wildlife, including ancient woolly bison with horns spanning 6 feet. The caves were a natural resting spot, thanks to a nearby spring and abundant native plants used for food, ceremony, and medicine near the trio of caves now named Ghost, Middle, and Pictograph. Humans have been here since before the time of the Pyramids. “It’s the most important prehistoric site in Montana,” says John Douglas, a University of Montana archaeology professor and the department chairman. “And it’s the touchstone for all prehistory in Montana since.”

Migratory camps for prehistoric people were likely scattered throughout Montana. What made Pictograph Cave appealing is the protection it offered from the elements. Fortunately, those dry and comfortable living quarters for early visitors also preserved the materials of their cultures. The sheltered climate of the cave eliminated the freeze-thaw cycle and preserved rare bits of rope, basketry, and even roasted turnips—all items of great interest to archaeologists.

The artifacts are rich with information. The presence of abalone and olivella shells proves trading with distant tribes was common; the gaming pieces indicate that prehistoric man had the time and inclination for leisure and fun. The basketry is reminiscent of techniques used many hundreds of miles away in the Southwest. “A single fragment of basketry contains great cultural information,” says Montana Fish, Wildlife & Parks archaeologist Sara Scott. “The basketry technique itself, passed from one generation to another, has great antiquity.”

The caves preserved artifacts in a well-ordered manner, which allowed for easier analysis. Dirt and rock sloughed off the ceilings at regular intervals, creating a horizontally layered record that chronicled the four distinct eras of early visitors. Top layers date to 1750 AD, while subsequent layers neatly trap three more eras—500 AD to 1750 AD (when people used dogs to move belongings); 3,000 BC to 500 AD; and 7,000 BC to 3,000 BC (the oldest layer).

The colors in Pictograph are bold and expressive. The blacks were made from basic charcoal; the reds, an iron oxide; and the whites from unknown sources. Early archaeologists believed the images were records of events; these days the scientists speculate the drawings were a way of communing with the supernatural.

Shield-bearing warriors, animal figures, and weapons (including



NORMAN & MAURINE JACOBSON

LAYERS OF ARTWORK Many painted images in Pictograph Cave overlap or completely cover previous pictographs. Archaeologists carefully study this “superimposition” to learn which images were painted first and which are the most recent additions.

rifles) are the dominant motifs of the cave images. Most of the thousands of pieces unearthed from the site are animal bones.

Sadly, the pictographs are deteriorating. The same sloughing process that once preserved cultural material now threatens to collapse Pictograph Cave. Time has faded the colors. Slow seepage from a pond above the cave complex has formed a mineral skin over the images. Early preservation efforts that removed 1960s graffiti actually erased several pictographs.

The lesson learned from those early preservation efforts raises difficult questions: Should the park allow nature to take its course? Use chemical seals to slow deterioration? Repaint the images? “One option would be to remove the mineral overlay, but that would cost hundreds of thousands of dollars, based on estimates we’ve received from rock art conservators,” says Scott. “Another option is to let nature take its course and be grateful we have the to-scale reproductions made in the 1930s.” ■

Christine Hensleigh is a writer in Whitefish. Portions of this sidebar originally appeared in the July-August 2009 issue of Montana Magazine.

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longevity, were believed to represent the connection between the natural and spiritual worlds. In 1993, a small sample from another turtle image was removed from the wall inside Pictograph Cave. Radiocarbon analysis of the sample determined it was 2,145 years old, making it one of the oldest documented rock art images on the Northern Great Plains.

Bruner explains that the “BP” on the dates of many artifacts means “before present.” Scientists use 1950, the year that calibration curves for radiocarbon dating were established, as an arbitrary “present” date on which to base a time scale used in archaeology, geology, and other scientific disciplines. For instance, the oldest projectile point is dated around 9200 BP, or 9,200 years before 1950.

After more than half a century’s absence, archaeological work is again under way at the cave complex. “In compliance with the Montana Antiquities Act, we frequently hire archaeological contractors to conduct investigations before going ahead with any projects that might disturb the ground,” says Scott, the FWP archaeologist. In 2007, the department hired Steve Aaberg, owner of Cultural Resource Consulting Service, to perform test excavations at the sites of the proposed visitor center and new trail improvements. One discovery was an 800-year-old cooking hearth that contained a charred bison bone “We got lucky,” says Aaberg. “There’s a tendency to think the Pictograph Cave story has been completely told, but that’s not so.” The archaeologist believes even more artifacts lie buried deeper

“There’s a tendency to think the Pictograph Cave story has been completely told, but that’s not so.”

than what was previously excavated.

Aaberg says he greatly admires the hunter-gatherers who occupied Pictograph Cave. “The civilizations that left behind massive structures like pyramids and temples have come and gone, while the hunter-gatherer peoples continued to survive until relatively recently—and in some parts of the world they still survive,” he says. “To me, the remarkable knowledge that hunter-gatherers had of their complex natural environment—along with their cultural longevity and the light footprint they left on the landscape—make them as advanced as any other culture.”

Fortunately, previous visitors to the cave complex left some trace of their passing.



Their artifacts and rock art continue to attract people to Pictograph Cave State Park, a site of sweeping scenic beauty and rich historical significance. Visitors can still smell the fragrant sweet sage in the summer breeze and gaze upon the rimrocks and vast plains framed by a bright blue sky. And they can know they are at an important place where others have visited for thousands of years—and will continue to visit for many years to come. 🐾



DIGGING DEEP Above: Prehistoric hearth with bison scapula. Above right: Tubular bone beads and shell fragments. Below: Archaeologists conduct an excavation along a proposed trail site.



PHOTOS COURTESY ABERG CULTURAL RESOURCE CONSULTING SERVICE

WHEN YOU GO

Directions: On I-90 near Billings, take the Lockwood Exit (452) to Coburn Road. The park is at 3401 Coburn Road, a distance of about 6 miles.

Hours: The park is open year round. Call (406) 254-7342 or visit fwp.mt.gov for more information and to learn seasonal park and visitor center hours.

Admission: Free for Montana residents. Nonresidents pay a day-use fee.