

Obsidian Cliff

National Park Service
U.S. Department of the Interior

Yellowstone National Park



Obsidian Cliff looms over the Grand Loop Road about 13 miles (21 km) south of Mammoth Hot Springs and 9 miles (14.5 km) north of Norris Junction. The cliff rises gradually from the north for a half mile until it peaks 200 feet (61 m) above Obsidian Creek. Named for the volcanic glass, which catches the afternoon sun and was a valuable material in past times, the cliff is a National Historic Landmark.

Fire & Ice

Obsidian forms when lava cools so quickly that crystals do not have time to form and grow. It is usually found as small globes in other rocks; an outcrop of this size is rare. Obsidian Cliff formed during a lava flow approximately 180,000 years ago. The lava may have contacted ice of a glacier and cooled unusually quickly, forming chunks of glass rather than globs.

The columns on the south face of the cliff are another result of rapidly cooling magma. The liquid rock shrinks inward, cracks, and contracts as it cools to form these four- to six-sided columns.

Ancient Trade

Obsidian Cliff is an outstanding example of a prehistoric quarry. Evidence shows that prehistoric Americans obtained obsidian here for more than 11,000 years. Ancient people and modern tribes used this volcanic glass, which chips into sharp fragments, to make weapons, tools, and ceremonial objects. They traded tools and obsidian across North America, as far east as Ohio and into Mexico.

Because of its archeological importance, Obsidian Cliff became a National Historic Landmark in 1996. To protect the resources, hiking and all other access around and on this cliff is not allowed.

Collecting any natural resources, including obsidian and other rocks, is illegal in Yellowstone National Park.

Modern History

The kiosk in the Obsidian Cliff pullout is also on the National Register of Historic Places. Built in 1931 from local volcanic rock, the kiosk is one of the first wayside exhibit shelters built in the National Park System. The structure is original; the exhibits are more recent.



For more information
www.nps.gov/yell

Restoring a Presence: American Indians and Yellowstone National Park, P. Nabokov & L. Loendorf
Yellowstone Resources & Issues Handbook, available in visitor center bookstores.