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U.S. Department of the Interior

FOSSIL BUTTE NATIONAL MONUMENT

Historic Quarry Trail

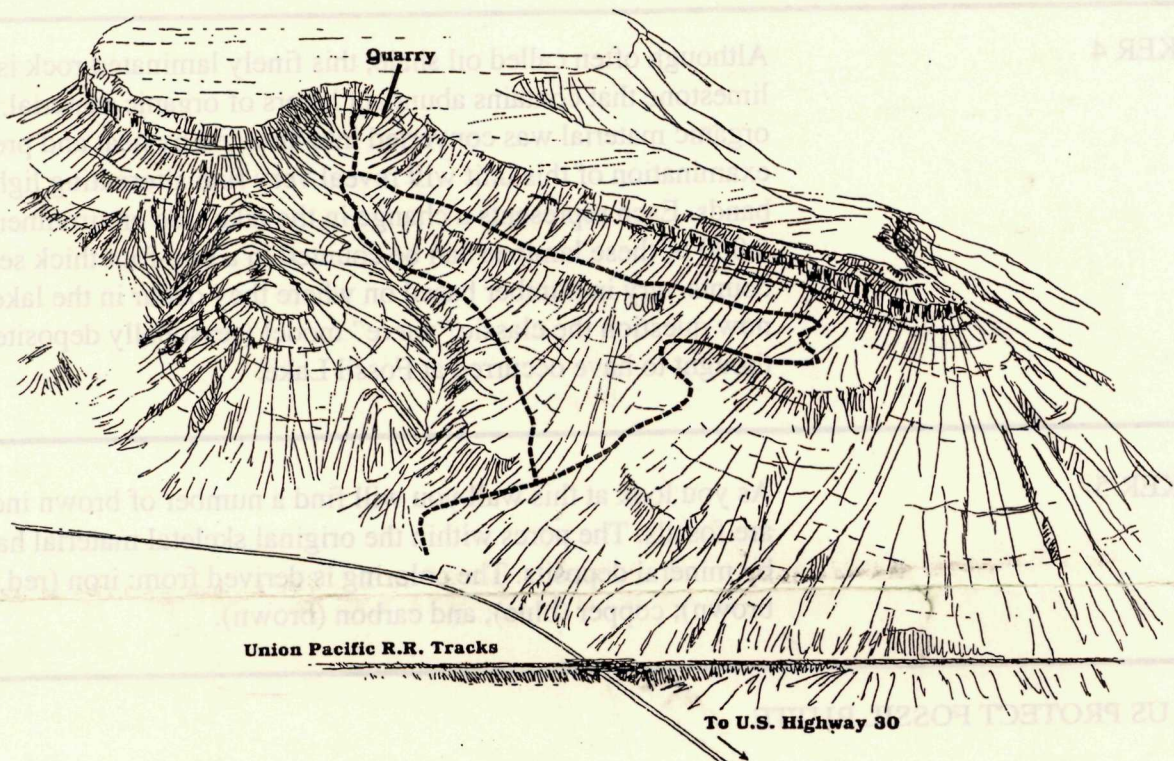
HIKE THE BUTTE

This trail, just over two and one-half miles in length, leads to the site of a historic fossil quarry on the face of the butte. The interpretive signs along the trail will help you understand the natural and cultural history of this semi-arid environment. Once at the quarry, use the back of this folder to guide you.



Comfortable walking shoes, water, and insect repellent will add to a safe and pleasant hike. Check at the Visitor Center for trail conditions.

The tops of the buttes are prone to lightning strikes. If you are hiking as a storm approaches, seek shelter in a low lying ditch or draw, avoid trees and metal objects. Crouch down and wait for the storm to pass.



THE FISHERMEN

The first documented discovery of fossil fish was in 1856. Originally the interest in the fossils and the Green River Formation was scientific, with references being made in various geographic surveys and associated reports. By the turn of the century, however, many fossil fishermen were collecting fossils. Little is known about these early collectors. Some were local workers who quarried for extra income. Many sold fossils to large museums back east and passengers on the trains passing through the old town of Fossil.

THE QUARRY

Welcome! Take a few moments to enjoy the scenery and become familiar with the area around you.

This abandoned quarry site is 7,410 feet above sea level, about 600 feet higher than the beginning of the trail. In the time since the sediments were deposited in Fossil Lake some 50 million years ago, they have uplifted about 6,000 feet.

As you go up the trail following the arrows and numbered markers we remind you to watch out for people below. The trail is steep and cuts through a talus slope of loose rock. Do not throw or roll any objects from the trail or quarry.

Take time and be sure of your footing.

MARKER 1

Ash layers from ancient volcanoes periodically covered Fossil Lake. Although the volcanic activity had a definite effect on the lake environment, it did not “kill” the lake. Fossils are found after (above) these layers. The ash or “Tuff” layers are recognizable throughout Fossil Basin and are used as marker-beds by geologists. Minerals within these ash deposits can be radiometrically dated.

MARKER 2

The light tan rocks were formed in shallow water that was saline (salty). These beds typically do not have as many well-preserved fossils or fine laminae (layers) as other layers on the butte.

MARKER 3

The Green River Formation has many distinctive horizontal layers. The natural tendency of this rock is to break along these flat-lying planes. This is due to the settling of fine particles through water that forms paper thin layers.

MARKER 4

Although often called oil shale, this finely laminated rock is a type of limestone that contains abundant layers of organic material. The original organic material was converted into kerogen by heat and pressure. Close examination of this unit will reveal very fine alternating light and dark bands. Each represents a change in the lake side environment. As many as 5,000 of these laminae can be counted in a one-foot thick section. Laminae counts vary in number based on where they occur in the lake. Geologists now question the classic “varve” model (seasonally deposited laminae), thought to have occurred at Fossil Lake.

MARKER 5

As you look at this wall you will find a number of brown inclusions. These are fossils. The pores within the original skeletal material have been filled by mineral deposits. The coloring is derived from: iron (red, orange, brown); copper (blue); and carbon (brown).

HELP US PROTECT FOSSIL BUTTE

All objects in the monument: rocks, fossils, artifacts, wildflowers and animals, must be left in place and undisturbed so that others may enjoy them. This protection is not only the law, it is a matter of good citizenship and consideration for others.

Take Pride in America!
