

## Quarry Trail

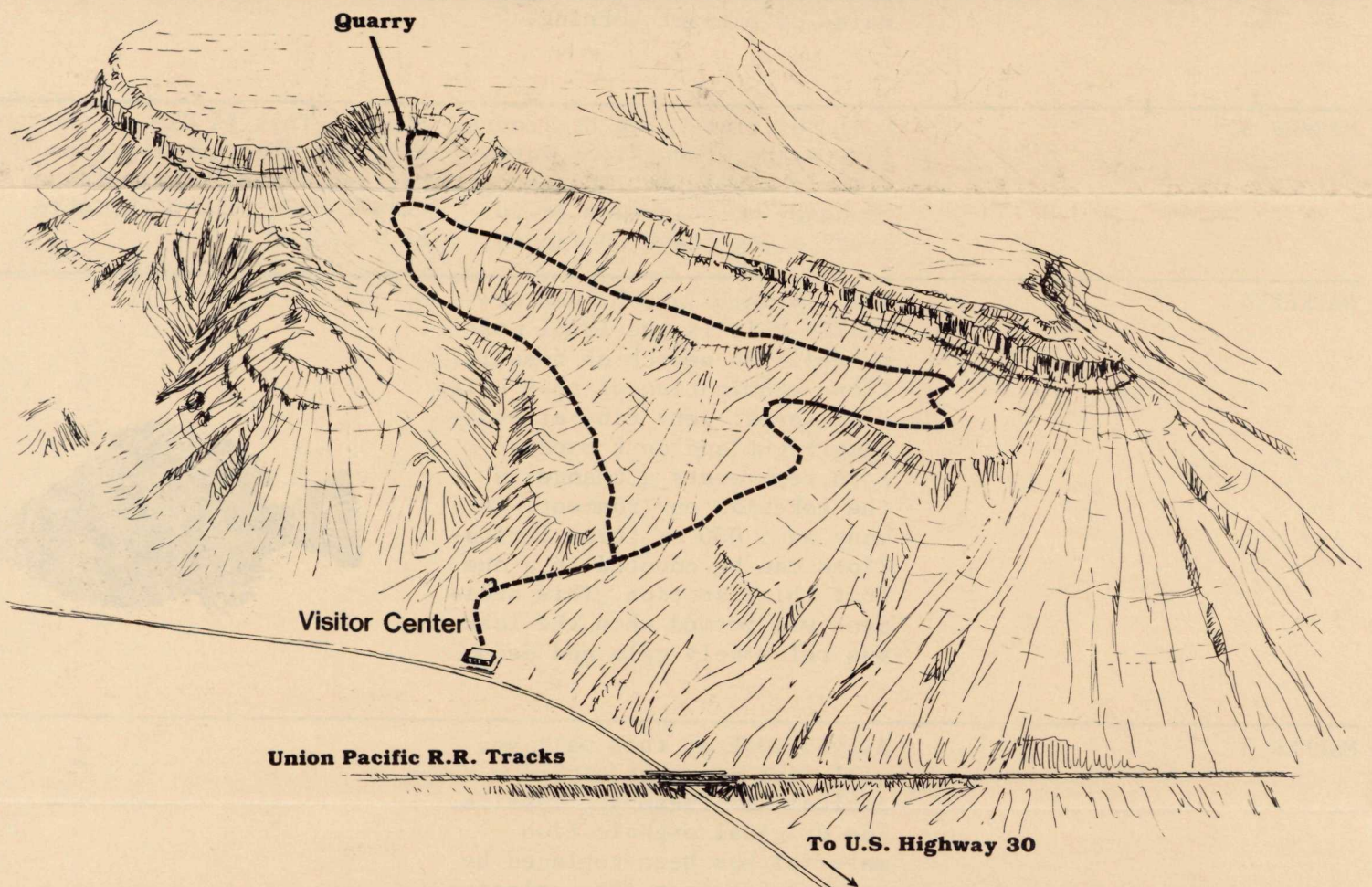


### HIKE THE BUTTE

This trail, just over two and a half miles in length, leads to the site of a historic fossil quarry on the face of the butte. Along the trail interpretive signs 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 with the ranger for trail conditions.



### THE FISHERMAN

The first documented discovery of fossil fish was in 1856. Originally the interest in the fossils and the Green River Formation was scientific, being noted in various geographic surveys and associated reports. By the turn of the century, however, many fossil fishermen were hard at work. Little is known about many of these early collectors although photographs attest to

their presence here. Some were local workers who quarried for extra income. Many fossils were sold to travelers passing through the old town of Fossil on the train.

Today the opportunity to fish for fossils is kept alive by several local families on private and state owned properties. Ask a ranger for further information concerning these quarry operations.

THE QUARRY

Welcome! For a moment enjoy the scenery and become familiar with the area around you.

This abandoned quarry site is 7410 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 proceed up the path following the arrows and numbered markers we remind you to watch out for people below. Do not throw or roll any objects in the quarry. The trail is steep and cuts through a talus slope of loose rock.

Take your time and be sure of your footing.

MARKER 1

Ash layers, such as this, 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 as marker beds by geologists.

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 as other layers on the butte, but do contain abundant remains of extinct herring.

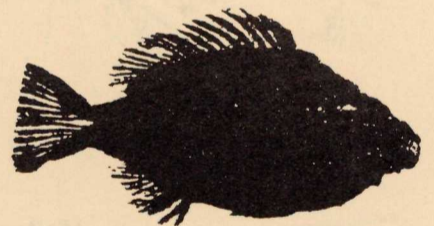
MARKER 3

Note the flat lying horizontal layers the Green River Formation is known for. The natural tendency of this rock is to break along these horizontal

planes. This is due to the settling of fine particles through water, forming paper thin layers, characteristic of a shale.

MARKER 4

The "18 inch layer". Historically this is the level most quarried in search of fossils. Close examination of this unit will reveal very fine alternating light and dark bands. Each represents a change in the lakeside environment. As many as 5,000 of these laminations can be counted in a one foot thick section. This sediment was formed when the lake was relatively calm and deep.



MARKER 5

As you look at this wall you will find a number of brown inclusions. These are fossils. The original organic fish material has been replaced by other substances. 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 a matter of law; it is a matter of good citizenship and consideration for others.

Take Pride in America!