

Capitol Reef

NATIONAL MONUMENT • UTAH

THIS WATER-CARVED LAND

Water has been responsible, in one form or another, for the spectacular scenery you see before you. Water, in the form of rivers carrying tremendous loads of stones, pebbles, and grit, ground away at rocks and cliffs to carve the valleys. Water, as glaciers, helped grind the rocks and boulders into soil. Water, as ice, also created the pressures which split rocks to start the processes that made the soil beneath your feet. Water, as rain, softened and eroded the hard materials and transported them to other areas.

The geologic story goes back millions of years. Two deposits are of the Permian Period, when a shallow sea covered the area before the beginnings of life, but these are not easily seen. However, standing by the visitor center, you can see several formations which lie above the Kaibab Formation of the Permian.

Later, the Capitol Reef area tilted toward the north during the early Triassic Period and became a broad flood plain, or sometimes a tidal flat. Debris washed off the mountains was deposited and later compacted to form the sandstones, siltstones, and mudstones of the Moenkopi Formation. The ripple marks and mud cracks show the floodplain and tidal flat deposition. The Moenkopi includes the distinct red and chocolate layers which also form the entrance road from the west.

The Shinarump member of the Chinle Formation is obvious in some places. This yellowish sandstone was deposited in streams after temporary damming. Oyster Mine is in this uranium-bearing stratum. Colorful beds of the upper members of the Chinle—purples, greens, grays, and browns (sandstone, silts, and volcanic debris)—were laid down much the same as the Shinarump in broad flood plains and streambeds. The Chinle is displayed across the highway from the visitor center.

During the late Triassic, the land again underwent changes in the form of another uplift which further drained the shallow sea. The area became a desert where sand drifted into dunes covering many miles. Two sandstone formations were laid down in very much the same manner by wind and stream action. The Wingate Sandstone can be seen in the high, reddish-brown cliffs which rise majestically above the visitor center and in the red columns of the Tapestry Wall at the head of Capitol Gorge. The Kayenta Formation was laid down by stream action when the plateau was again tilted. Another sandstone formation is the massive Navajo, which makes up the gray, rounded domes of Capitol Reef, two of which are named Capitol Dome and Golden Throne. Capitol Dome can be seen from Hickman Bridge parking area, and Golden Throne from one place in Capitol Gorge or by hiking the Golden Throne Trail from the Capitol Gorge parking area.

During the Jurassic Period, the land again tilted, this time toward the south, and a shallow sea advanced and retreated numerous times. The deposits of this period became the limestone, gypsum, sandstone, siltstone, and claystone of the Carmel Formation.

Thereafter, the area was covered by a series of calm, land-locked basins in which were deposited the soft, reddish-brown Entrada and the hard, gray Curtis Sandstones. Also deposited in these shallow lakes was the Summerville Formation, with its thin even bedding, much like the earlier Moenkopi. The most accessible view of these formations is on the eastern edge of the monument near the turnoff to Notom.

Once again the land uplifted and created a wide flood plain, then settled and became a swampy lake. During this time, the colorful Morrison Formation, with its reds, purples, greens, yellows, and grays, was deposited. It can be seen best as you approach the monument from the east, where it forms badlands.

This tranquil setting of swamp deposition was changed by the slow encroachment of the Cretaceous sea, about 80 million years ago. Then was laid down the drab Dakota Sandstone, a mixture of sandstone, conglomerate, and fossil shells, which is abundantly displayed in Oyster Shell Reef along the road into the southern part of the monument, south of Bittercreek Divide.

The most recent geologic formations in the monument are the Mancos Shale and the Mesa Verde Sandstone. These were deposited when the sea alternately advanced and retreated. They are present on the extreme southeastern boundary.

As seen in the park today, all these layers are tilted eastward as part of the Waterpocket Fold—labeled a monoclinical flexure because the layers of rock incline in one general direction, but flex back toward the horizontal. This effect was caused by extreme pressures beneath the surface acting on the rock crust. The fold extends nearly 100 miles from Thousand Lake Mountain to the Colorado River. Almost the entire fold is within the monument.

You may note other geologic features. About 20 million years ago, molten rock was being intruded into cracks and fissures. Because of subsequent erosion, you can see this evidence in the dikes, sills, and volcanic plugs at Cathedral Valley and South Desert. The black basalt boulders strewn about the park are a product of volcanic activity on Boulder and Thousand Lake Mountains. They were carried here by glacial meltwaters from those mountains about 25,000 years ago.

When you enter the monument you cannot help but notice the change from desert on the east and sagebrush plains on the west to the green vegetation of the valley that seems almost lush in comparison with "outside." However, such growth does not prevail throughout the monument. Once you move away from the Fremont River, you can see that land is quite dry except for a few perennial streams and an occasional waterpocket (bowls in rock structure formed by the action of falling water) left full by melting snow or infrequent showers.

THE SETTLERS

We know that pre-Columbian Indians of the Fremont culture lived here in open caves and built

stone structures for corn storage. They raised corn on the flat ground near the streams. Smooth cliff walls are marked with many petroglyphs of unusual size and style, enduring figures pecked into the stone many centuries ago. (Artifacts and relics are on display at the visitor center.)

Shortly after the 1850's, the first Mormon settlers found their way to this verdant valley. It was 1880 when Nels Johnson obtained a land claim and became the first permanent settler of a little community that was to be named Fruita. The village and its vicinity never could produce enough to sustain more than about a dozen families. Although the Johnson cabin fell into ruin in the 1920's, you can still visit the general area, which is now the picnic ground, 1 mile from the visitor center on the Scenic Drive. Almost isolated by the rugged terrain, Fruita was linked to Hanksville and other settlements to the east only by two routes. One, the Fremont River Road, had many sections washed out after each rain and would have to be rebuilt. It was not until 1963 that the State built Utah 24 to open a permanent route through the Fremont Canyon.

Elijah Cutler Behunin established the second route through the monument—a route followed today by the Scenic Drive. His cabin can be seen 6 miles east of the visitor center. The old Fruita schoolhouse, three-quarters of a mile east of the visitor center on Utah 24, was built about 1890 and was used through 1941. It served the settlement of Fruita both as schoolhouse and community house. The National Park Service has restored the building and refurnished it to nearly the way it was when last used.

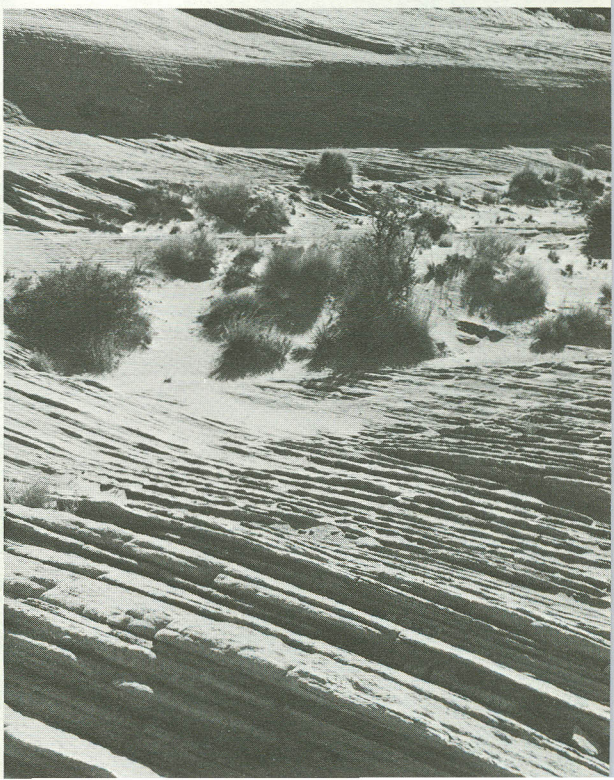
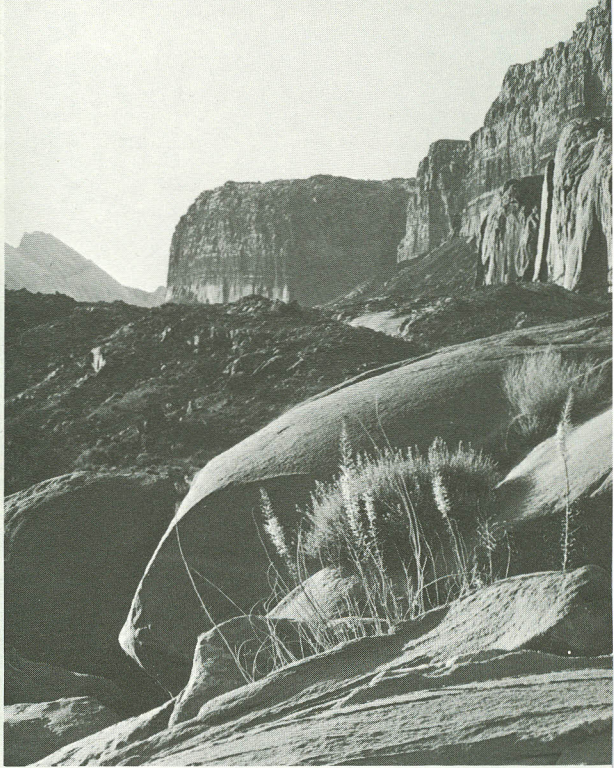
HOW CAPITOL REEF GOT ITS NAME

The "Capitol" part of the name is derived from the resemblance of the rounded domes of Navajo Sandstone to those of the Federal and many State capitols. The word "reef" was used by sailors on the Australian Gold Rush to describe the gold-bearing ridges near Bendigo which resembled the rock reefs of the seas. Mining people picked up the term and have used it to describe any natural rocky barrier to travel.

SOMETHING ABOUT YOUR VISIT

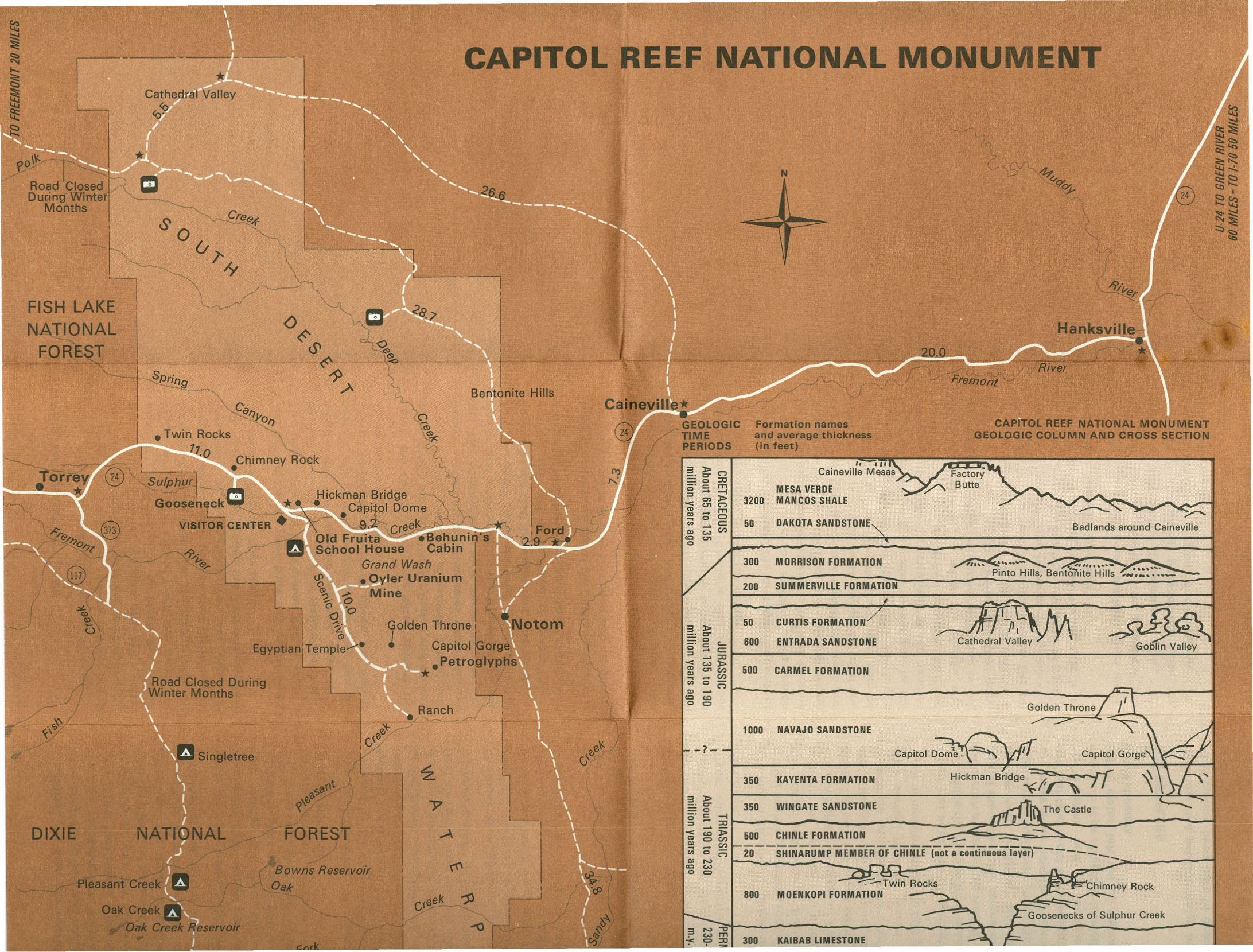
The visitor center is 5,418 feet above sea level. Summer daytime temperatures are in the 80's and 90's. Nights are generally cool. Spring and autumn are usually mild, with cold weather starting in mid-December and lasting through February. Plants and animals are typical of the high Sonoran desert of the Southwest. In spring, an abundance of insects and birds bring new life each year. Small reptilian life is plentiful, including the always useful snakes that help control the rodent population. In addition to a variety of rodents, other mammals present include the coyote, mule deer, and cougar.

The only campground is 1½ miles from the visitor center on the Scenic Drive near the Fremont River. A small fee is charged. No firewood is provided. In season, evening programs are conducted by park naturalists.

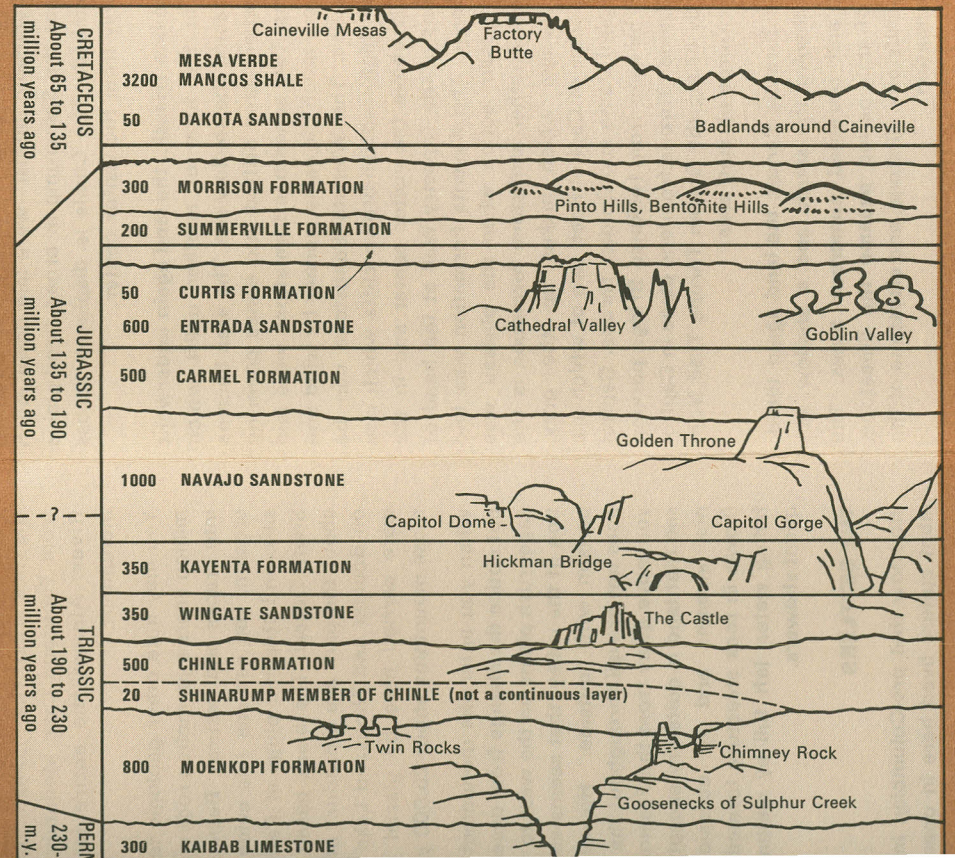


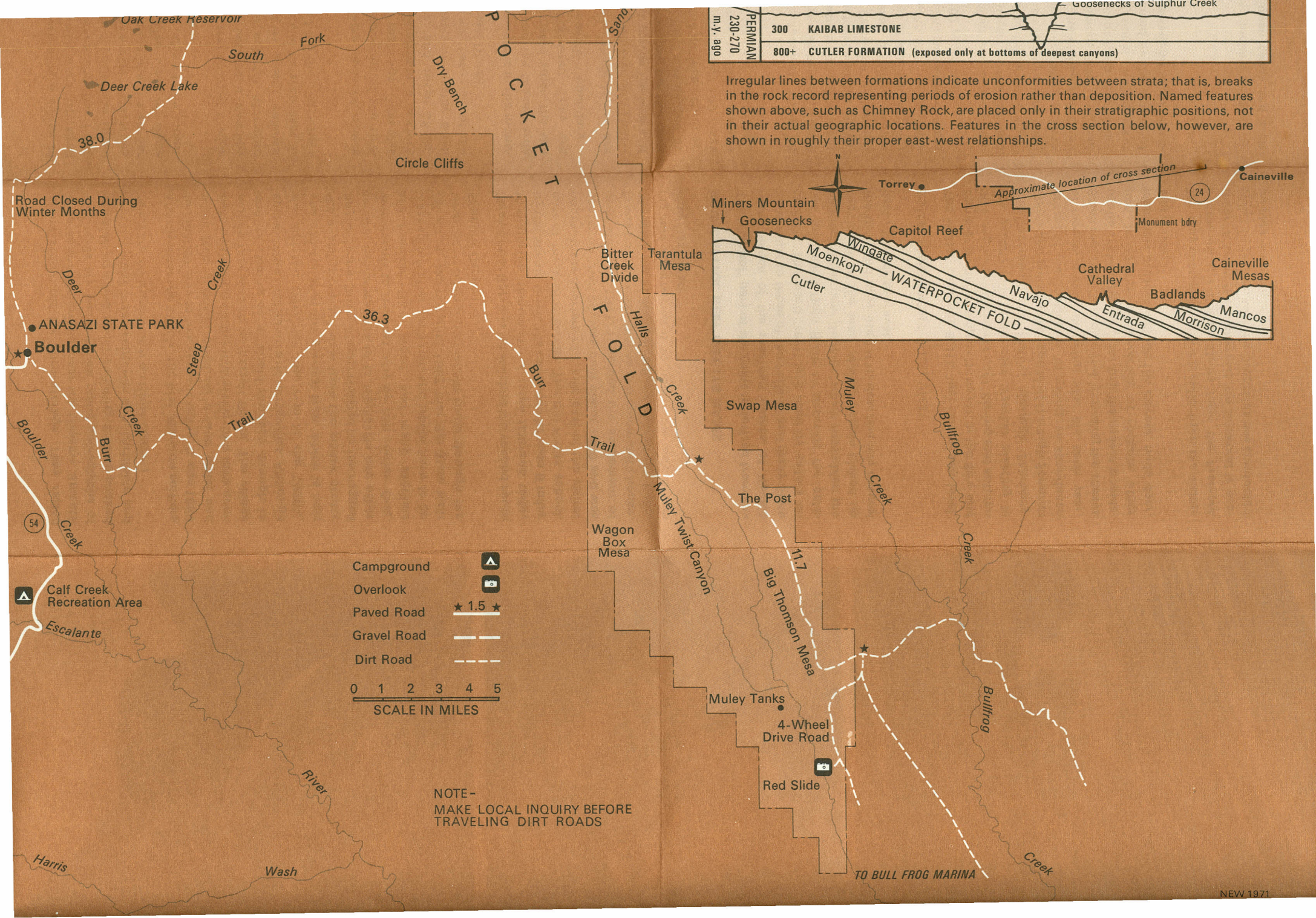
Photos courtesy of Philip Hyde






CAPITOL REEF NATIONAL MONUMENT



**CAPITOL REEF NATIONAL MONUMENT
GEOLOGIC COLUMN AND CROSS SECTION**





Campground 
 Overlook 
 Paved Road  1.5
 Gravel Road 
 Dirt Road 
 0 1 2 3 4 5
 SCALE IN MILES

NOTE -
 MAKE LOCAL INQUIRY BEFORE
 TRAVELING DIRT ROADS

PRESERVATION OF THE MONUMENT

All camping and picnicking are limited to those places so designated to keep the monument undefiled by litter. Regulations are designed to protect natural features and to provide for your safety and convenience.

Pets are allowed if kept under physical restraint at all times. Driving off established roads and the use of firearms are strictly forbidden.

You can be prosecuted for disturbing Indian artifacts or any historical object. Rock collecting is also strictly forbidden.

Please help preserve Capitol Reef National Monument for others to enjoy it as you have.

ADMINISTRATION

Capitol Reef National Monument, established by Presidential proclamation on August 2, 1937, now contains 254,241 acres. A superintendent, whose address is Torrey, UT 84775, is in charge.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources." The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

U. S. Department of the Interior
National Park Service