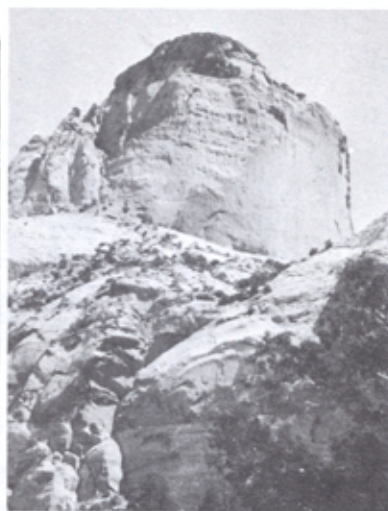


Capitol Reef

NATIONAL PARK • UTAH



The rock forms of "The Great Organ", far left, resemble the pipes of an organ. On the road between Grand Wash and Capitol Gorge. "The Golden Throne", near the mouth of Capitol Gorge. Rock sculpture in Halls Divide at the south end of the park.

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 park, south of Bittercreek Divide.

The most recent geologic formations in the park 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 160 kilometers (100 miles) from Thousand Lake Mountain to the Colorado River. Almost the entire fold is within the park.

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 park 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 park. Once you move away from the Fremont River, you can see that the 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.

PRESERVATION OF THE PARK

All camping and picnicking are limited to those places so designated to keep the park 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 Park for others to enjoy it as you have.

THIS WATER-CARVED LAND

Water has been responsible, in one form or another, for the spectacular scenery you see before you. Water, in seas, lakes and streams, deposited most of the sediments, and later carried the minerals that cemented them into rock. 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 ice, created the pressures that split rocks to start the processes that made the soil beneath your feet. Water, as rain, softened and eroded the rocks and soil 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, but these are not easily seen. However, standing by the visitor center, you can see several formations that lie above the Kaibab Formation of the Permian.

As the sea retreated during the early Triassic Period, the Capitol Reef area 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. The Oyler 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 in broad flood plains and marshlands. 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. Three sandstone formations were laid down in much the same manner by wind and stream action. The Wingate Sandstone can be seen in 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 region was again tilted. Another sand dune 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 park near the turnoff to Notom.

Once again the land was uplifted, 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 park 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

YOUR SAFETY. Do not allow your visit to be spoiled by an accident. Efforts have been made to provide for your safety, but there are still hazards which require your alertness and vigilance. Exercise common sense and caution.

WE'RE JOINING THE METRIC WORLD

The National Park Service is introducing metric measurements in its publications to help Americans become acquainted with the metric system and to make interpretation more meaningful for park visitors from other nations.

ADMINISTRATION

Capitol Reef National Park is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is Torrey, UT 84775, is in charge.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

**National Park Service
U.S. DEPARTMENT OF THE INTERIOR**

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 orchards 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 1.6 kilometers (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 by only 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 1962 that the State built Utah 24 to open a permanent route through the Fremont Canyon.

Elijah Cutler Behunin established the second route through the park—a route followed today by the Scenic Drive. His cabin can be seen 9.7 kilometers (6 miles) east of the visitor center. The old Fruita schoolhouse, 1.2 kilometers (three-quarters of a mile) east of the visitor center on Utah 24, was built about 1890 and was used through 1941. It served Fruita both as schoolhouse and community house. The National Park Service has restored the building and refurbished it nearly the way it was when last used.

HOW CAPITOL REEF GOT ITS NAME

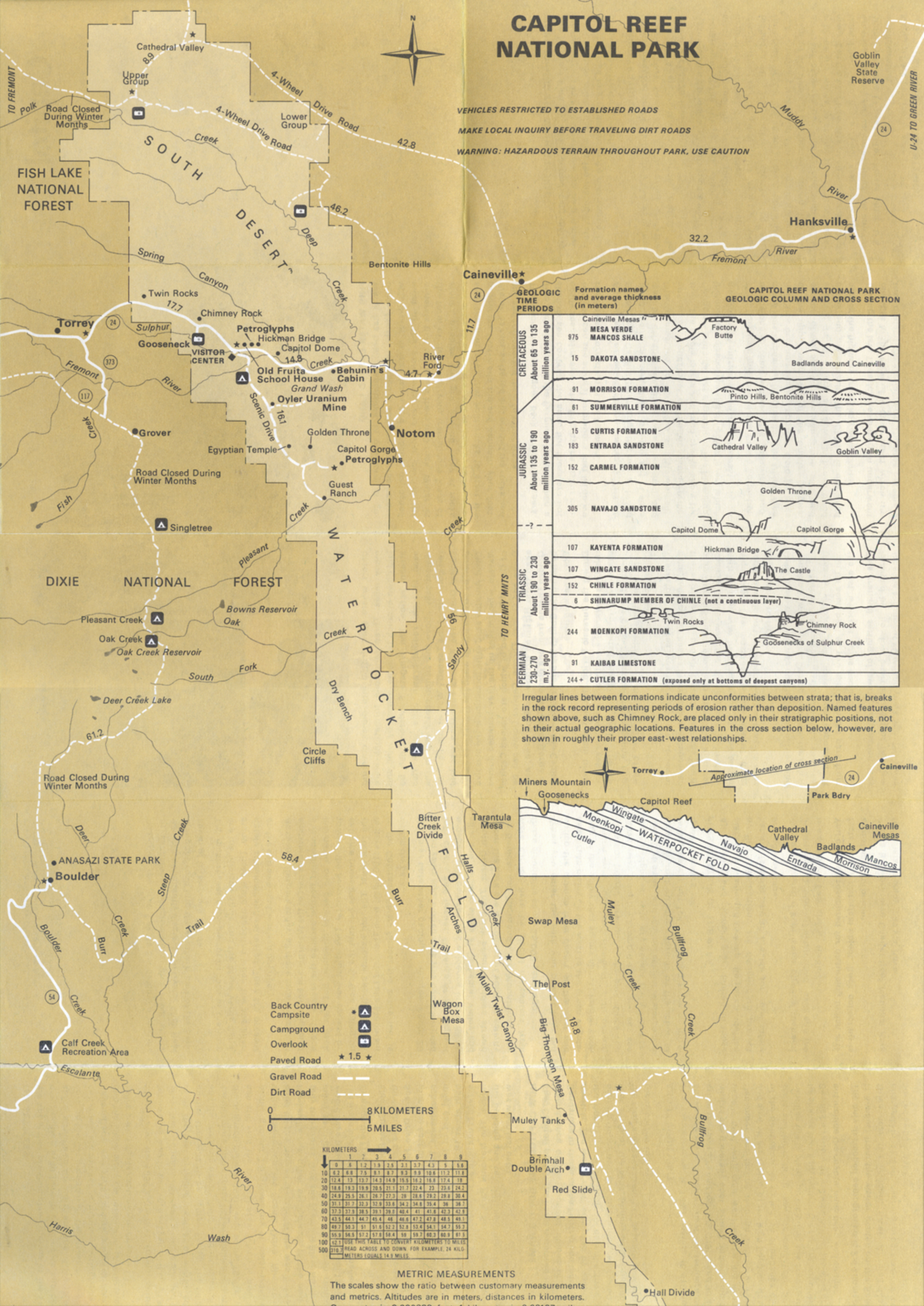
The "Capitol" part of the name is derived from the resemblance of the rounded domes of Navajo Sandstone to those of the Federal and many State capitols. The word "reef" was used by sailors on the Australian Gold Rush to describe the gold-bearing ridges near Bendigo which resembled the rock reefs of the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

ABOUT YOUR VISIT

The visitor center is 1,651 meters (5,418 feet) above sea level. Summer daytime temperatures are in the high 20's and low 30's C (80's and 90's F). 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. Besides a variety of rodents, other mammals present include the coyote, mule deer, and cougar.

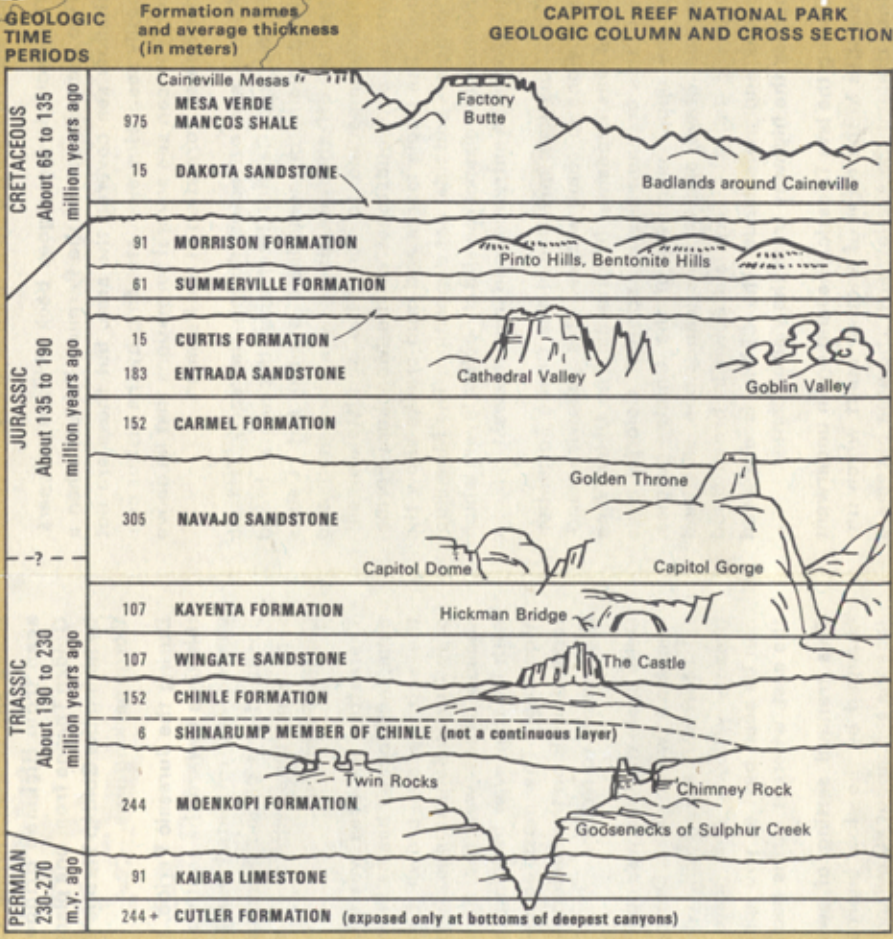
The only developed campground is 2.4 kilometers (1.5 miles) from the visitor center on the Scenic Drive near the Fremont River. A small fee is charged. In season, evening programs are conducted by park naturalists.

CAPITOL REEF NATIONAL PARK



VEHICLES RESTRICTED TO ESTABLISHED ROADS
MAKE LOCAL INQUIRY BEFORE TRAVELING DIRT ROADS
WARNING: HAZARDOUS TERRAIN THROUGHOUT PARK. USE CAUTION

CAPITOL REEF NATIONAL PARK
GEOLOGIC COLUMN AND CROSS SECTION



Irregular lines between formations indicate unconformities between strata; that is, breaks in the rock record representing periods of erosion rather than deposition. Named features shown above, such as Chimney Rock, are placed only in their stratigraphic positions, not in their actual geographic locations. Features in the cross section below, however, are shown in roughly their proper east-west relationships.

