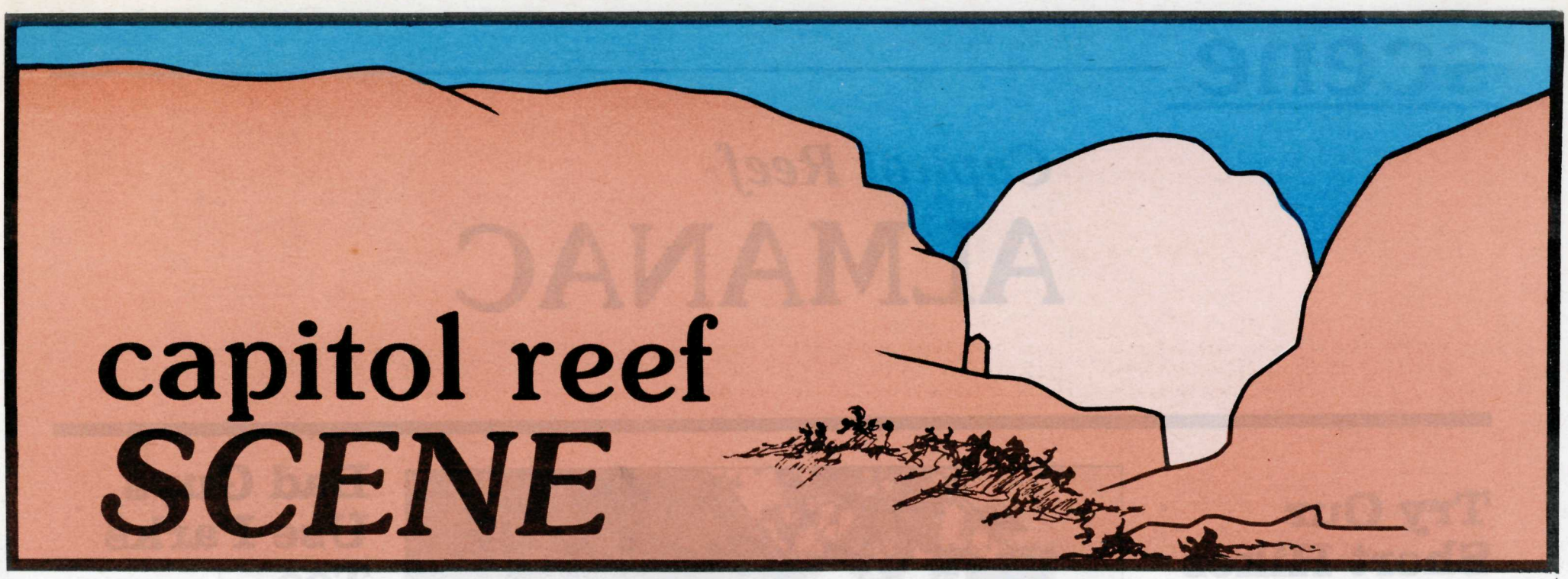


capitol reef SCENE

Capitol Reef Natural History Association

INSIDE SCENE

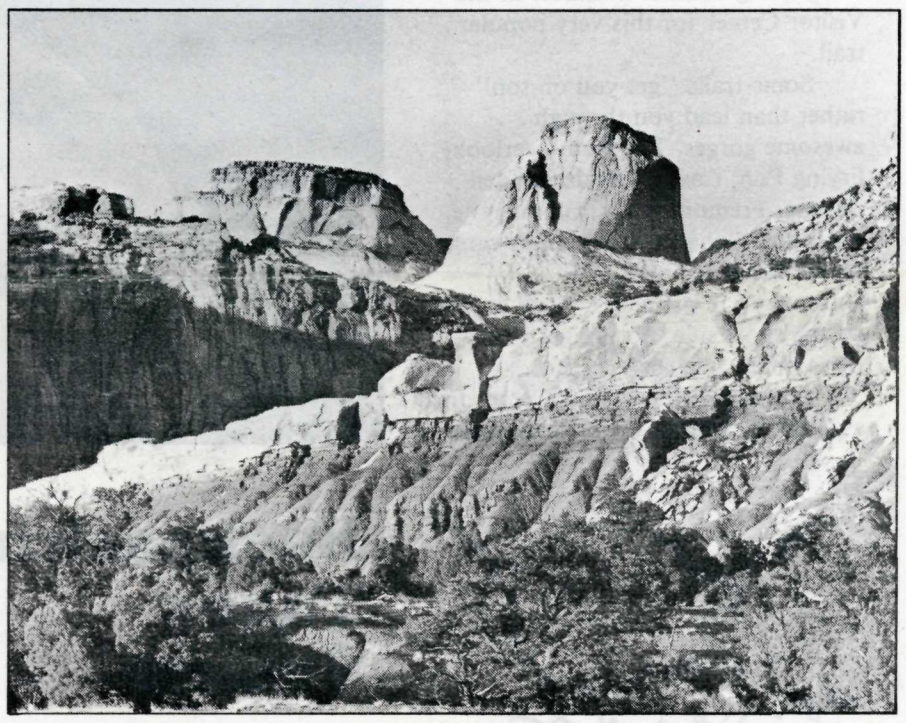
Scenic Drive is Fastest Way to See Capitol Reef Country

Many visitors have only a few hours to spend at Capitol Reef. The best way to make the most of this precious time is to pack into the family vehicle and head down the Scenic Drive.

The Scenic Drive draws you deep into Capitol Reef country. Following a pioneer wagon road, the Scenic Drive is graded and graveled and is almost always easily passable.

Probably the choicest views of the soaring west face of the Waterpocket Fold are found along the Scenic Drive; the colors are breathtaking. At your option, you can enter gorges a thousand feet deep. If you have time, you can make some short hikes, too.

Allow at least 90 minutes for the entire 25-mile round trip to Capitol Gorge, longer if you take short hikes. A stop-by-stop guide booklet is available at the Visitor Center.



Here the Accent is on Family Fun: Sightseeing, Hikes, Fruit Picking

Capitol Reef National Park is larger than Bryce Canyon and Zion National Parks combined and displays greater scenic variety for the visitor than either of those venerable parks. In short, it's well worth your precious time to explore!

Capitol Reef may be the national park system's best kept secret; visitation has hovered at the one-third million mark for several years. Like other national parks in Utah, it has campgrounds, hiking trails, a scenic drive, rough and remote roads to challenge the four-wheel drive family and backcountry adventure.

Capitol Reef has some extras, too. More than 2,500 "historic landscape" fruit trees provide enjoyment to the do-it-yourself picker as the cherries, apricots, peaches, pears and apples come into season. There are historic pioneer buildings to be visited and the puzzling rock art of the ancient Fremont Culture to be discovered.

The really big plus right now is that you can do these things, even in the summer, without the press of large crowds, overflowing parking areas and congested roads and trails. Quiet—even solitude—can still be found at Capitol Reef without a long trek into "backcountry."

". . . the light seems to flow or shine out of the rock rather than to be reflected from it."—CLARENCE DUTTON

scene

Capitol Reef ALMANAC

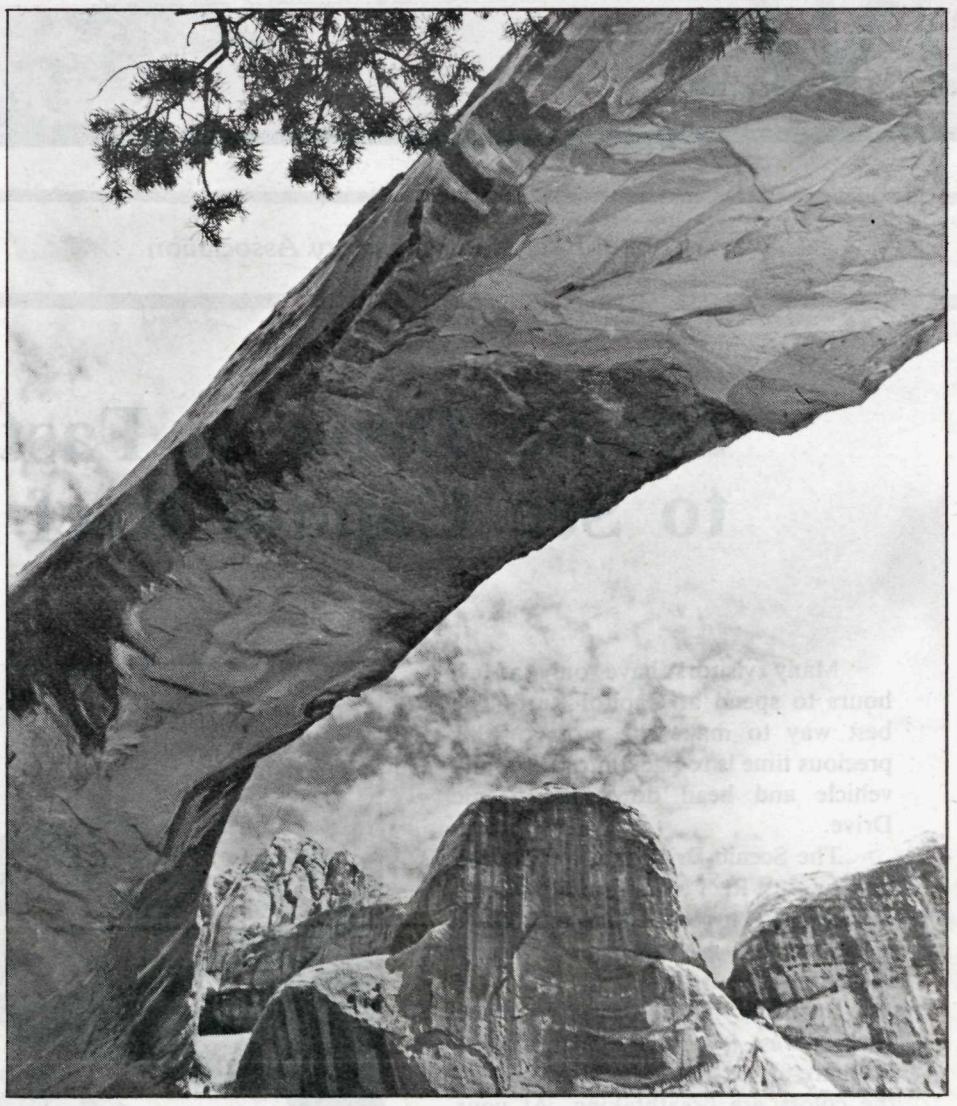
Try Our Short Hikes

For visitors with a little more time than a few short hours to spend, the park has some interesting hikes within a few miles of the Visitor Center. Some of these hikes are little more than scenic strolls, others are pretty rigorous. All, however, are short and can be completed in a few hours.

On the easy side are the Grand Wash, Capitol Gorge and Goosenecks strolls. The Hickman Bridge hike is of moderate difficulty and extends about a mile, one way. There is a self-guiding booklet available at the Visitor Center for this very popular trail.

Some trails "get you on top" rather than lead you through awesome gorges. The Rim Overlook, Frying Pan, Cassidy Arch, Golden Throne, Fremont River, Chimney Rock and Cohab Canyon trails range from "fairly strenuous" to "strenous" in difficulty. They are all on the short side, not longer than three miles, one way.

Just ask at the Visitor Center for a detailed handout about these trails.



Bad Guys Use Parks Too

Yes, Virginia, it's true. You're not safe from rip-off artists in national parks. In fact, there are predators who make a living from those who let their guard down in America's parklands.

Some of the favorite places for "car clouting" are trailhead parking areas. Patrol rangers, already spread too thin, concentrate their attentions there. Most "pros" can enter almost any locked vehicle doors in less than a minute. Trunks are harder to enter. If you must leave valuables in your car and you don't have a trunk, place them well out of sight.

Park rangers need your help with this problem, so report anything suspicious, pronto.

Park Has New Plan

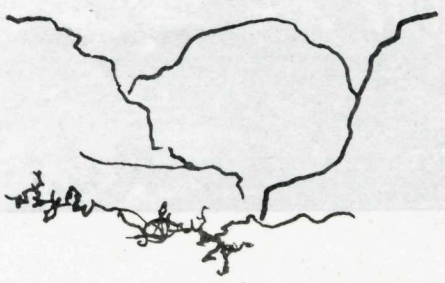
As of 1982, Capitol Reef has a new "general management plan" to guide its administration and development into the 21st century.

The 139-page document spells out "preferred alternatives" for the three districts of the park in regard to access, visitor facilities, park support facilities, resource management and interpretation.

Some of the developments called for in the plan include expansion of the Fruita (headquarters district) campground and the construction of a new campground in the south district near the Burr Trail.

Planners and park staff believe that implementation of the new plan will increase recreational opportunities, improve visitor safety and reduce congestion.

A copy is available for review in the Visitor Center at any time.



Scene

Editorial
George Davidson

Scene is a publication of the Capitol Reef Natural History Association, a private, non-profit corporation. All proceeds from sales of this publication are used to assist the educational, interpretive and visitor information program of Capitol Reef National Park.

Persons interested in contacting the association may write: Business Manager, Capitol Reef Natural History Association, Fruita Community, Torrey, Utah 84775, or phone: (801) 425-3834.

Backpacking Takes Smarts

It's not smart to just break out the trusty back pack and head for the boondocks. You'll be in for discomfort—even trouble—especially at Capitol Reef.

First of all, you'll need a permit issued at the Visitor Center. The permit helps rangers keep track of impacts on fragile desert backcountry and enhances the chances of a search if injury strands you.

Capitol Reef has some real rough country; it's safest not to hike alone. Water will be your biggest problem for a long hike, especially in the often fierce summer heat. Most of the few seeps, springs and rain-holding waterpockets are contaminated.

As you might expect, there are rules a'plenty to protect both you and the environment and you'll receive a detailed information sheet when you get your permit. Some of the "no-nos": No pets, no weapons use, no camping near watersources.

Some of the easier and "close in" backcountry hikes are Spring Canyon and Pleasant Creek. Muley Twist Canyon, just below the Burr Trail, is also popular. For the cross country backpackers, 378 square miles of park present a hiking boot full of possibilities.

What About the Black Rocks?

. . . next to "where's the rest room?" perhaps our most frequently asked question. Well, about 25 million years ago, tremendous volcanic eruptions in central Utah brought lava flow to a point just west of Capitol Reef. After that—especially during the recent Ice Ages—the lava cap was broken up and rocks were tumbled and rolled for miles by the then-mighty Fremont River and other watercourses cutting across the Waterpocket Fold.

The "black" rocks look out of place and, in a way, they are. They are much harder than the sedimentary rocks they lie upon. Naturally very dark, they often take on the color of the soils in which they rest. Along highway 24, between Torrey and Bicknell, you can see almost a line of them that appear to be half white and half black. These rocks have been disturbed by cable laying near the highway.

They Are Eagles!

The towering red rock escarpment across the road from the visitor center is a favorite haunt of golden eagles. Throughout the summer, they can be seen soaring on the thermal updrafts near the cliffs or swooping down over the rock rubble to snatch up a wiggling morsel.

The monoliths—waiting for you in Cathedral Valley. See page 8.

"Deerest" Dilemma

Warm weather visitors enjoy watching the mule deer herd in Fruita as they graze serenely on alfalfa at dusk. Talk about a just plain nice experience! Depending on the year, about 60–100 move down nightly from daytime solitude in the mesas above Fruita. Their trails crisscross the hillsides.

Like many pleasant things in life, the deer herd presence has a flip side that's not so good. The deer are natural *browsers,* not grazers, and they just love the tops of young fruit trees. Even larger trees are not safe. The deer love to rub against the bark. Once the trees are stripped of bark all way 'round, they're goners.

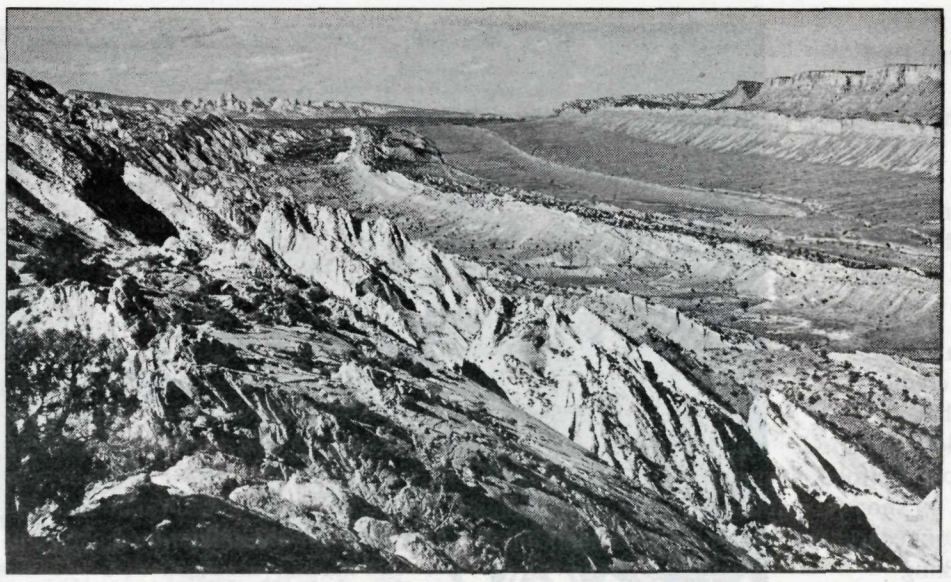
When a small, private farm community existed at Fruita, deer herds were no problem. Whenever a track was sighted, it created big excitement and a check of the trusty .30–.30 rifle. In or out of season, a wandering deer didn't last long around Fruita.

Now, the National Park Service is pledged to preserve the Fruita orchards. After all, they're part of an historic district that's on the National Register of Historic Places. At the same time, the park's rangers are also pledged to protect "the wildlife therein." Here's the proverbial "antlers of a dilemma" (pardon).

The most effective solution to date has been the construction of high wire fences. These are used around the perimeter of young orchards. Trouble is, the fences are in no way "historic" and don't do much for maintaining the "historic scene." Fact is, some folks think them reminiscent of a World War II prisoner-of-war fence, lacking only a strutting Commandant Klink inside. Not too long ago, one pleasant-faced lady, eyes aglow, breezed into the visitor center to "thank the rangers for putting the beautiful deer *inside* the fence so that the kids could view it in the daytime." Groan.

For those who pipe up "well, just move the deer," that's easier said than done. It's been tried from time-to-time with limited success. First, it costs a bundle in precious hourly wages. Second, tranquilizers are tricky to administer by air gun (the deer sometimes die). Third, some of the deer—transported miles away to the high country—somehow get back "home" to Fruita.

Of course, the deer hunters have another suggestion: Open the park to seasonal hunting. But that's a legal "no-no." Rangers could reduce the herd by rifle fire quickly but—let's face it—the heat generated by such a management action just might be "too hot to handle" in this day and age.



What we have here is a classroom example of the conflict between natural and agricultural systems. And it's complete with all the potential moral issues, prejudices and emotions these conflicts always generate, **e.g.,** the Grand Canyon burro problems, the proposal of sheepherders to poison rangeland coyotes and the idea of reintroduction of large predators to parks surrounded by ranches.

If any reader has a new scheme to help rangers down from "the antlers" of their dilemma, the rangers would love to hear it. Meanwhile, this "deerest" problem is with us.

Psst! I think the rangers like watching the deer too. [Editor]

It's Butch Cassidy Country!

The Wild Bunch—last of the big outlaw gangs—often sought sanctuary in the late 1890's at Robber's Roost, just east of Hanksville, Utah. Robert LeRoy Parker (Cassidy's real name) was well known in Wayne Country and often used the old road through Capitol Gorge (now the Scenic Drive). Tradition records that the gang maintained a hideout in Grand Wash, near the Scenic Drive, but this has never been confirmed.

Two Wild Bunch gang members—"Blue John" and "Silvertip"—were arrested by Deputy U. S. Marshal Joe Bush and brought to trial in nearby Loa, the county seat of Wayne County.

Try Burr Trail

If you like to see the "sights" by car or truck—and you are staying with us for more than a day or two—consider the 130 mile loop drive through Boulder, Utah and back to Capitol Reef.

In summer, the graded roads are in pretty good shape. Most of the time you will have no problem using the family sedan as long as it isn't slung two low. And the scenic views? "Magnificent, breathtaking, stupifying" all fit.

There's no backtracking on this drive. You start out at the Visitor Center and move east in highway 24. Just outside the park you'll wheel south at the Notom-Bullfrog Road junction and drive along the sharply tilted rock formations on the east face of the Waterpocket Fold.

When you reach the Burr Trail junction you will ascend some thrilling switchbacks (don't be fainthearted) and rise to the top of the Waterpocket Fold. The views are even more exciting than the ascent. When on top, consider that Mormon pioneers brought *wagons* over the fold in 1881 *before* a road was built.

As you travel west toward Boulder, the rocks become exquisitely colorful. You'll have to pass over a few very shallow washes, but the bottoms are firm and graveled and the inch or two of water you may find won't prove a problem. Of course, there's always a chance of a foot or more water in the washes following a heavy rain or snow melt. As always, watch the weather!

You're in for a real thrill when you start from Boulder to Grover over the high mountain road. Views of the Waterpocket Fold are incomparable. As a matter of fact, the first scientist-explorers to see the fold saw it from the slopes of Boulder Mountain in 1871.

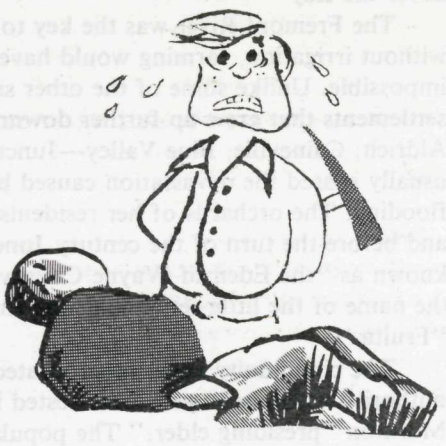
Always check on road conditions and weather before you start this trek. It's one of the best "tours" of Capitol Reef country.

Rocking at the Reef

Capitol Reef is a rock watcher's paradise but a little frustrating for rockhounders. Park regulations prohibit rockhounding and rangers take a dim view of folks working on the scenery with little hammer and sacks.

Parents can help their children understand the wisdom of protecting natural and historic objects in the nation's parks and not leave it up to park employees to tell a child that he can't take his/her "pretty rock" home. What harm will "one little rock" removal do? Well, despite intensive protective efforts over the years, there's hardly a portable piece of petrified wood left at most roadside areas in Petrified Forest National Park.

By the way, the Bureau of Land Management has a rockhounding area not too far east of Capitol Reef. Ask about it at the Visitor Center.



Watch Your Kids!

There are pitfalls for the unwary in parks like Capitol Reef. Some of the trails have steep drop offs; loose and crumbly rock is everywhere.

Park rangers are amazed at the lack of care displayed by some parents who take trail hikes with their children. The kids are allowed to run hundreds of feet ahead, playing near the edge of cliffs, or scrambling over loose rocks that are prone to shifting.

One of the reasons that national parks are so appealing is that they are not full of fences or plastered with warnings. Capitol Reef contains some of nature's most beautiful handiwork but it's no sheltered Disneyland. The park is real—with all that implies.

scene

Red Rock Eden

The Story of Fruita and the Orchards

Most visitors to Capitol Reef National Park are curious about the thousands of fruit trees that lie within a mile or two of the visitor center. These trees—apple, pear, peach, cherry, apricot, mulberry, even Potawatamee Plum—are the most obvious reminder of the pioneer community that once prospered in the narrow valley of the Fremont River.

Settled Late

Settlement came late to south-central Utah; the Capitol Reef area wasn't charted by credible explorers until 1871. In the last half of that decade, Latter Day Saint (Mormon) settlers moved into the high plateau lands west of Capitol Reef and established communities based on short-season farming and grazing. They then looked to the east, along the corridor of water snaking through the soaring cliffs and domes of the Waterpocket Fold—the Fremont River.

The origin of the little community at the junction of the Fremont River and Sulphur Creek is obscure. The first "resident" may have been an 1879 squatter by the name of Franklin Young, but the first landholder of record was Neils Johnson. Others soon followed and the community that sprang up became known as "Junction."

River the Key

The Fremont River was the key to life; without irrigation, farming would have been impossible. Unlike some of the other small settlements that grew up further downriver—Aldrich, Caineville, Blue Valley—Junction was usually spared the devastation caused by frequent flooding. The orchards of her residents prospered and before the turn of the century Junction was known as "the Eden of Wayne County." In 1900 the name of the little settlement was changed to "Fruita."

The community never incorporated. Local authority—such as it was—was vested in the Mormon "presiding elder." The population averaged about ten families.

Although it became widely known in south-central Utah for its orchards, Fruita residents also grew sorghum (for syrup and molasses), vegetables and alfalfa. Fruit growers usually picked the fruit prior to maturation and hauled it by wagonload to bigger towns like Price and Richfield—and beyond. This was a formidable undertaking when one considers that in 1901 it took the Mormon bishop of Torrey more than an hour and a half to travel the nine miles between Fruita and Torrey in the best weather. If the road between Torrey and Fruita was difficult, the "road" between Fruita and Hanksville—37 miles east—was nearly impossible.

The Blue Dugway

In 1883, residents of Fruita (then Junction) had built a passage through Capitol Gorge that extended to Caineville and Hanksville. This primitive roadway was called the "Blue Dugway" and it served to connect the river settlements with the rest of Utah until after World War II. The narrow wagon track was so difficult, however, that the little Fremont River communities remained some of the most isolated in America until the mid-20th century.

Along the Fremont River, barter served as the means for acquiring goods and services; cash was in short supply. Although some Fruita men worked on the state roads, annual fruit sales remained the major source of cash income.

Where Time Forgot

The one-room schoolhouse, constructed by residents in 1896, served as a community center. The desks were movable and the community enjoyed dances and box socials in the little building. Residents also held church activities there as well as in private homes.

Women often quilted together and men and boys were especially fond of baseball. "Putting up" foods was not a hobby in Fruita; it was essential for survival through the winter.

Well into the modern era, farming techniques in Fruita remained in the 19th century. It was not until World War II that the first tractor was purchased.

Fifty years ago, Fruita was spared much of the anguish that the Great Depression brought to other communities in America. Long reliance on barter as the main method of filling basic life needs shielded the Fremont River settlers from the cash drought that plagued the nation. Contrary to what one might imagine, Fruita sheltered passionate supporters of Franklin D. Roosevelt as well as conservative "Hooverites."

A Tolling Bell

Although it wasn't recognized clearly at the time, the establishment of Capitol Reef National Monument in 1937 would become a tolling bell for the Fruita community. After World War II, park visitors began to arrive in increasing numbers; the road from Richfield to nearby Torrey was paved in 1940. In 1952, the pavement was extended to Fruita; the world had found the Capitol Reef country.

As visitation to the monument increased in the post war years, the National Park Service (NPS) determined to purchase all the Fruita properties still in private hands. By the late 1960s, most of this had been accomplished on a "willing seller/willing buyer" basis. Many of the residence structures and outbuildings were razed.

Although most of the structures of the Fruita settlement are gone (with the exception of the restored schoolhouse, the Pendleton-Gifford house and barn and a few others), the orchards remain and dominate the landscape. The new general management plan for Capitol Reef National Park cites the value of the orchards as a "historic landscape" and affirms the intention of the National Park Service to preserve them.

Heritage Preserved

The orchards—all owned by the American people—are maintained at a level of about 2,500 trees with 1,800 "in production." A small crew is kept busy year-round with pruning, irrigation, replanting and spraying.

As each fruit crop comes into season, the fruit (apples, cherries, peaches, apricots and pears) is made available to the public on a "pick your own" basis. The park superintendent sets the per pound or bushel price after checking local commercial orchard prices. Although he may take the isolation of Fruita into consideration in setting prices, he is not permitted to undercut private enterprise.

Management of the orchards, especially during picking season, presents some difficult problems to resolve. Because the trees were planted as smallish family orchards originally—each with a wide variety of fruit types—fruit ripens in these "mini-orchards" at varying times. It is very difficult for park rangers to "open" orchards for picking in small "penny packets" and still exercise the control needed to protect the trees from damage and the pickers from unsafe acts.

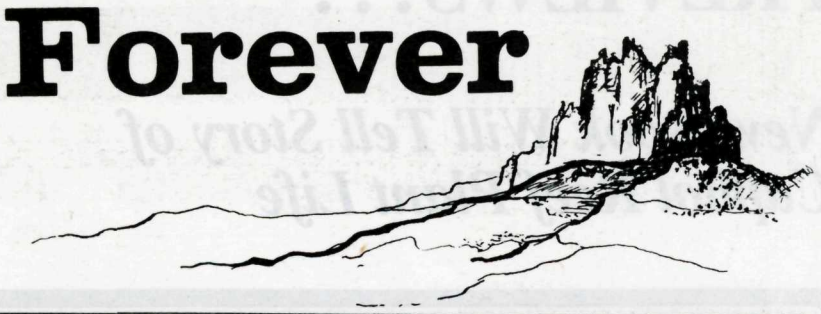
However, as trees become overage, horticultural workers are slowly replacing the patchwork quilt-like layout of the orchards with a more orderly arrangement consisting of large tracts of monocultures, **e.g.**, all peaches in one large orchard, all apricots in another large orchards, etc. In this way, the gross aspect of the "historic landscape" will be maintained but the fruit harvest will be much easier to manage.

For both visitors and regional residents, Fruita will continue to be the "Eden of Wayne County" into 2001—and beyond.

Touchstones of Forever

Look for the Secrets in the Rocks

By George Davidson



Not every traveler across the broken lands of the Colorado Plateau in south-central Utah is impressed.

I remember how enthralled I was as I drove to Capitol Reef National Park from a National Park Service office job back east. Pushing northwest from New Mexico, the colors seemed to become more brilliant, the contours of twisted rocks more ragged. Caught up in this geological fantasy I exclaimed, "Isn't this magnificent?" Deflation came suddenly. My second oldest intoned from the rear seat, "What's so great about it, Dad? Nothing but rocks." The other two mumbled assent. Incredible! Where had I failed?

Three years after that deflation, I'm not sure the kids are really moved much by the isolated but spectacular environment in which I live and work. The social hurly-burly at school is often a topic of suppertime chatter—never a sunset glow on a soaring cliff. Maybe it really takes the care-weary or at least the life-seasoned to appreciate a sunset.

Preadolescent children and Utah pioneers may share a little something in common. Most of the stalwarts who settled south-central Utah in the last three decades of the 19th Century couldn't find much praise for the Waterpocket Fold either. The 100 mile long spine of "standing-up" rock couldn't be cultivated in most places and, unless a cow or sheep had discovered levitation, grazing was impossible. Latter Day Saint (Mormon) pioneers saw the jumble of cliffs and gorges as a barrier to travel. The first wagon road through Capitol Gorge was cleared in 1883 and kept open only with constant effort.

With the roads and air-conditioned land cruisers of today, your entry to south-central Utah and a quarter-billion years of earth history can be almost effortless. When you are not fighting just to survive—and you are well-fed and comfortable—something that transcends the mundane can happen.

The Mystic Within . . .

The rocks! The soaring, jumbled, jagged rocks! Sometimes the flatlander's initial response—like mine—is enthrallment, a transfixing, an elevating euphoria. Naturally, there are lots of folks who just think the scenery is "nice." We're talking about matters of the "spirit" here that just don't fall into neat categories. Changing rock colors, especially at sundown, are rich beyond description. Every nuance of shading and rock glow lifts the inner self just a little bit higher.

The dictionary defines "mystic" as one who experiences an immediate spiritual intuition of truth that transcends ordinary human understanding. If that's so, then quite a few "mystics" pass through Capitol Reef. I know they do; some talk to me about their experiences.

Some people see the glory and majesty of a Creator here, sort of a silent **Te Deum** or soaring hymn of praise. Others just as sensitive, but who disavow a religious persuasion, find a sense of awe, of inner elevation.

If you don't stay long, your encounter with the rocks—and the memory of that encounter—may remain primarily mystical. But even sensitive humans won't be long satisfied with "spiritual" encounter. Soon the need to question and probe will reassert itself. It always has.

Nowhere on earth is the historical time of man's memory more piteously compared to the vastness of geologic time. If one insight can be carried away from the red rock country it might be this: No physical form in the universe—neither on earth, nor in firmament above—is forever. In the cosmology of "stuff," change is perhaps the only physical constant. "This, too, shall pass away" is no mere facile phrase to help one bear life's woes. The hills "everlasting" are the hills "everchanging."

These "hills everchanging . . ."

If time travel were possible, most folks wouldn't have liked the Capitol Reef Visitor Center locale 220 million years ago. Probably the landscape was as flat as Kansas—very hot and very humid, partially covered with shallow marine waters. A visitor would find himself near sea level and the equator (the continents drift) and the land would be a fairly barren, seemingly endless flood plain. If the climate weren't enough to turn you off, the primitive, six-foot long reptile trying to gnaw away your leg would. No—the environment that gave us the red shale and sandstone sediments of the Moenkopi Formation was not a spa. And you might **not** realize that this stifling mudflat would lie on other sands and muds—already changed to stone—that extended back two billion years, even then.

One-hundred and ninety million years ago you wouldn't have liked the Visitor Center locale either. Your time machine might leave you standing on a sand dune, the glaring white sands of a scorching, near-equatorial desert a blur in the horizon's sky.

Steps of the Ages

If your time machine brought you back to the present in fits and starts you'd see most environments appear several times for return engagements. The shifting desert sands that made the Wingate Formation would come back again; someday they would form the Navajo sandstone. And a shallow sea, moving slowly with the tilting of the continent, would come back—again and again—always with new life forms. And with each ebb and flow, with each change, the mud, the sand, the volcanic ash and the remains of once living things would stay—as sediments. And sediments would become rock in layer after layer, like the risers and steps of an ascending staircase.

If the ascending staircase idea is a workable analogy then there's a couple of steps missing. Wind, weather and water had a habit of doing in ancient times just what they do today—eroding soil and rock away. Whenever there was a significant pause in the laying down of sediments, erosion got into the act. Where geologists find a step in the staircase of sediments has eroded away in times primeval, they yell "unconformity!"

While most of the geologic steps would be the same at, say, the Capitol Gorge locale as they would near the Visitor Center, a few would not. In ancient times, just as they do today, streams meandered and shorelines abided. A meandering river laid down the so-called Shinarump sandstone just on top of the Moenkopi and that's why you just can't find it in some places. As the song might refrain "The river didn't flow where the Shinarump didn't grow."

The process of layering—building the sediment(ary) staircase—went on **almost** forever. Here in south-central Utah it pretty much ended about 60 million years ago. For some reason—geologists now cite events deep within the crust of the earth associated with "continental drift"—a large sprawl of land (the Colorado Plateau) began to be uplifted.

The Twisted Staircase

As the whole mind-boggling event of uplift accelerated, the weathering away of rock quickened. Silt-laden water runoff eventually found access to the Pacific Ocean and, ever since, the Colorado Plateau has been "going to sea" in the muddy waters of the Colorado River and at a pretty quick pace if you remember how long it took to put all those layers down to begin with.

"Reading the rocks" on the Colorado Plateau might not be all that difficult if geologists were dealing with fairly uniform rock layers, a few unconformities and the process of weathering. But all sorts of other events complicate things, like (1) molten rock (magma) from deep within the earth moving into subterranean cracks and fissures, pushing and distorting the sediment(ary) rocks; (2) small glaciers grinding and reshaping, leaving oddball sediments of their own; and, (3) the stressing, twisting, stretching and breaking of the sedimentary rocks in "mini" versions and variations of the Colorado Plateau disruption. At Capitol Reef just such a distortion in the rock layers occurred and left us the scenic legacy of the Waterpocket Fold.

There remain many questions about the origin of the Waterpocket Fold that are, at best, only partially answered. For instance, geologists are unsure if the uplifting of the Waterpocket Fold got underway at about the same time the Colorado Plateau uplift event was starting about 60 million years ago. The fold may still be uplifting.

The sedimentary rocks of the Waterpocket Fold country **look** tilted and distorted, that's for certain. Here the analogy of the ascending staircase we talked about before runs into problems unless you think of trying to focus on the staircase after a very wild night on the town or, perhaps, imagine looking at it through one of those fun house mirrors.

The Titan's backbone . . .?

You know, it's odd how some things get a handle. When you think about it, calling a gigantic 100 mile long upthrust the "Waterpocket Fold" because of eroded potholes found here and there that hold rainwater is like naming a newly discovered animal species after the flea that lives on its back. Too bad, for from the air the fold looks to me like the fossilized backbone of some gigantic vertebrate—how about one of the Titans of Greek mythology (remember that "there were giants in the earth in those days)? Yes, the "Titan's Backbone" has a nice classical ring, but "Waterpocket Fold" is on the maps.

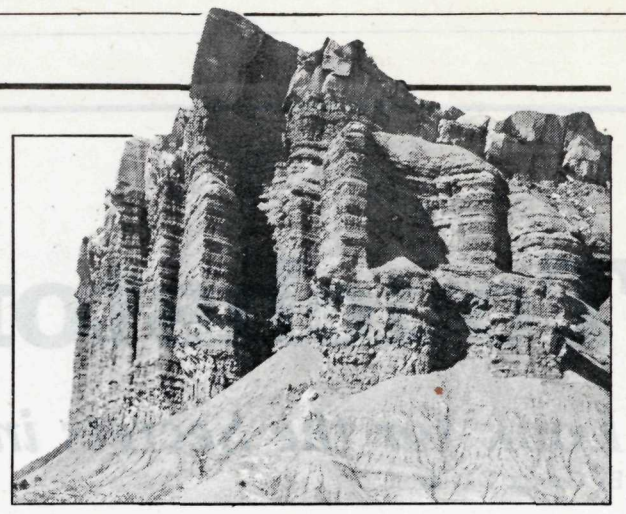
Visitors to Capitol Reef National Park are often confused by the terms "Capitol Reef" and "Waterpocket Fold." Many assume they are synonomous. No so! "Capitol Reef" refers only to the scenic spectacular of red cliffs and white domes that march south from the old Fruita community site about 15 miles to Pleasant Creek. "Waterpocket Fold" refers to the much larger geologic entity of eroded uplift that stretches from Thousand Lake Mountain to Lake Powell. And the Waterpocket Fold is much wider than "Capitol Reef" as well. When visitors stand at Panorama Point scanning the near-luminous west face of Capitol Reef at sunset they are **within** the geologic feature called the Waterpocket Fold.

Well, don't let all this geology stuff get you down. If you must like being dazzled—enjoy it and hold fast to the condition.

And you know, after three years of this red rock rhapsody I'm still a mystic about Capitol Reef. Maybe you guessed as much!

scene

PREVIEWS...



New Book Will Tell Story of Capitol Reef Plant Life

The Capitol Reef Natural History Association has a very active publications program and hopes, by the year 2000, to have books available on every facet of the scenic, geologic, cultural and biologic resources of the park. A publication long needed has been one dealing with the diverse plant life of the park, illustrating not only what *plants exist in the park but explaining* how *and* why *they are here. What professional botanist Dr. Susan Meyer has lovingly authored is not just another "coffee table" picture book of a national park's plant life, but a penetrating and witty look into plant relationships with water, soil, animals, man and—one another. Her book—a true "plant ecology"—is expected to be ready for the 1987 visitor season; savor now this brief chapter on water:*

Water is the key to understanding the lives of Capitol Reef plants. The very first plants on our planet lived totally immersed in this amiable medium, but all that changed with the hard-fought conquest of land. Land plant design is based on the need to keep from wilting in an environment where death by dehydration is the biggest threat. For desert plants, this danger is very real indeed. Land plants also had to develop a more rigid structure, since they no longer had the bouying effect of water to help them spread their light-capturing canopies.

Water enters the plant through its roots. You have to dig very carefully to begin to comprehend the intimacy with which plant roots clasp the soil. The delicate hairs of the feeder roots are threadlike extensions of single cells, which cling to each tiny soil crumb. The degree of interpenetration is so great that roof and soil become inseparable. Only by exposing these vulnerable living threads to the hazards of the changing soil environment can the plant draw in the water and dissolved mineral nutrients it needs. If the soil dries out too much, the feeder roots die back, and the main root branches, which are waterproofed with a corky covering, ensure that water is not leaked out into the soil again. Just as above ground, the well-timed death of small repeating units is essential to the well-being of the whole plant.

Once inside the root, the water moves upward into the stem through conducting tissue made up of clusters of tiny tubes. These tube clusters ramify into every branch and into each leaf, where they form a network of veins. As water is lost from the leaf surfaces, a pressure or potential gradient is created. This pulls water up from the roots, in much the same way that sucking pulls water up a straw. If flow up from the roots cannot keep pace with evaporation from the leaves, the leaves begin to lose water and wilt.

You might think that waterproofing the leaves to seal in the moisture would solve the problem, and desert plants especially do tend to do that. But it is not a perfect solution, because a plant with perfectly waterproof leaves would die—of starvation. Water is only one essential ingredient in the sugar-manufacturing process—another is carbon dioxide, which must enter the leaves in gas form from the atmosphere. Unfortunately, any pathway which permits the essential carbon dioxide to enter is also an escape route for water. Plants have solved this dilemma by having tiny adjustable holes called stomates ("little mouths") scattered across a leaf surface which is otherwise more or less waterproof. The stomates open when conditions are right for carbon dioxide uptake, but close when conserving water becomes the number one concern.

The rate of water loss from leaves is greatly increased by the fanning action of the wind. If a leaf can trap a still layer of air over the stomates, the carbon dioxide can enter, but evaporation is slowed down. A covering of hair can create such a still layer. Sometimes the stomates themselves are countersunk into the leaf surface, opening into pits or crypts where they are out of the breeze.

Evaporation from the surfaces also helps to cool the leaves, and plants which opt for conserving water must find other ways to keep from parboiling their leaf protoplasm. A small leaf re-radiates heat quickly and stays close to air temperature rather than overheating, while one with a pale, waxy or hairy surface can reflect the radiant energy before it is converted to heat. Big, bright green leaves are a good sign that a plant can afford the water to keep cool by evaporation.

FOR THE BIRDS . .

Black, soaring wings against a sheer redrock cliff. A flash of russet on a fence near the old barn. Raucous calls from riverside thickets on a moonlit night. Whether raven or golden eagle, Say's phoebe or yellow-breasted chat, the birdlife at Capitol Reef National Park is rich, an encounter with the unusual an ever-present possibility.

Many Habitats Here

The range of habitats and elevations at Capitol Reef gives a "birder" opportunities rarely equaled elsewhere on the Colorado Plateau. A continually expanding checklist reflects this; nearly 200 species have been recorded in the park.

The greatest concentration—hence the best "birding"—centers around the farmlands and river bottoms of the old Fruita historic area. In the desert, water means life and the streams, irrigated fields and orchards of Fruita create an oasis in the slickrock country that attracts all types of animal life.

Lured by ripening fruit, robins pluck mulberries from the trees in the picnic area and compete with humans for the cherry harvest. Common flickers swoop with roller coaster-like flight between large riverside cottonwoods while northern orioles suspend their bag-shaped nests from tree limbs. Late in the day, violet-green and rough-winged swallows wheel over the Fremont River in pursuit of flying insects. At dusk they yield the hunt to the white-barred wings of nighthawks.

Some of the most common residents are less noticeable. Leaf rustling and vigorous scratching in the underbush could betray the presence of the rufous-sided towhee.

Where Oasis and Desert Meet

The edges of the Fruita "oasis" habitat are especially rich in birdlife. Where agricultural lushness merges with dry, boulder-strewn hillsides and open shrublands, birds from both environments concentrate. Blue-gray gnatcatchers, scrub jays, ruby-crowned kinglets and black-throated sparrows from the drier desert country mingle with oasis varieties.

Canyonland bottoms with towering rock walls and dry washes attract their own inhabitants, including the commonly seen ash-throated flycatchers. They can be seen flitting from a tree branch perch, snatching an insect in midflight, then returning to the same branch to await the next morsel. A waterfall-like song of clear, descending notes announces the canyon wren, while the less vocal rock wren's mottled-gray back and rust colored rump bobs across rock rubble. A loud "kree-kree-kree" could attract your attention to the eyrie of the uncommon prairie falcon high on a canyon wall.

The Change of Seasons

The succession of seasons brings changes to the bird populations at Capitol Reef National Park. Most of the brightly colored birds of the summer disappear in winter. Western tanagers, black-headed grosbeaks, lazuli buntings and yellow warblers give way to dark-eyed juncos, black-capped and mountain chickadees, and hairy woodpeckers. Permanent residents like black-billed magpies are more readily noticed.

Migrants appear during the spring and fall. Waves of the common transients—broad-tailed hummingbirds and yellow-rumped warblers—are often accompanied by less frequently seen species—tree swallows and rufous hummingbirds.

Places like the Fremont River and Little Lake Mead (off the Notom Road) are stopovers and rest areas for water-oriented migrants like grebes, geese and ducks, herons and egrets, and assorted shorebirds. The incongruous sight of snowy egrets flying against a backdrop of redrock spires or a black-necked stilt stalking in the shallows of a temporary, rainfed "lake" occurs with surprising frequency.

The chukar is a non-native permanent resident at Capitol Reef and may be thought of as a pest by some, or bonus to a checklist by others. Originally from the "Mediterranean" dry belt of Eurasia, this hardy partridge was introduced as a gamebird to the Bicknell-Torrey area west of the park.

Abandoning the introduction site, the chukars drifted eastward into the ideal habitat for the species—canyons with boulder-strewn slopes and rocky cliffs with adjoining open, grassy fields—the Fruita area. As they multiplied rapidly with a typical brood of 8–15 chicks, coveys of native Gambel's quail disappeared. The chukars soon became a resource management problem for the park, another difficult-to-control intrusion into the native environment.

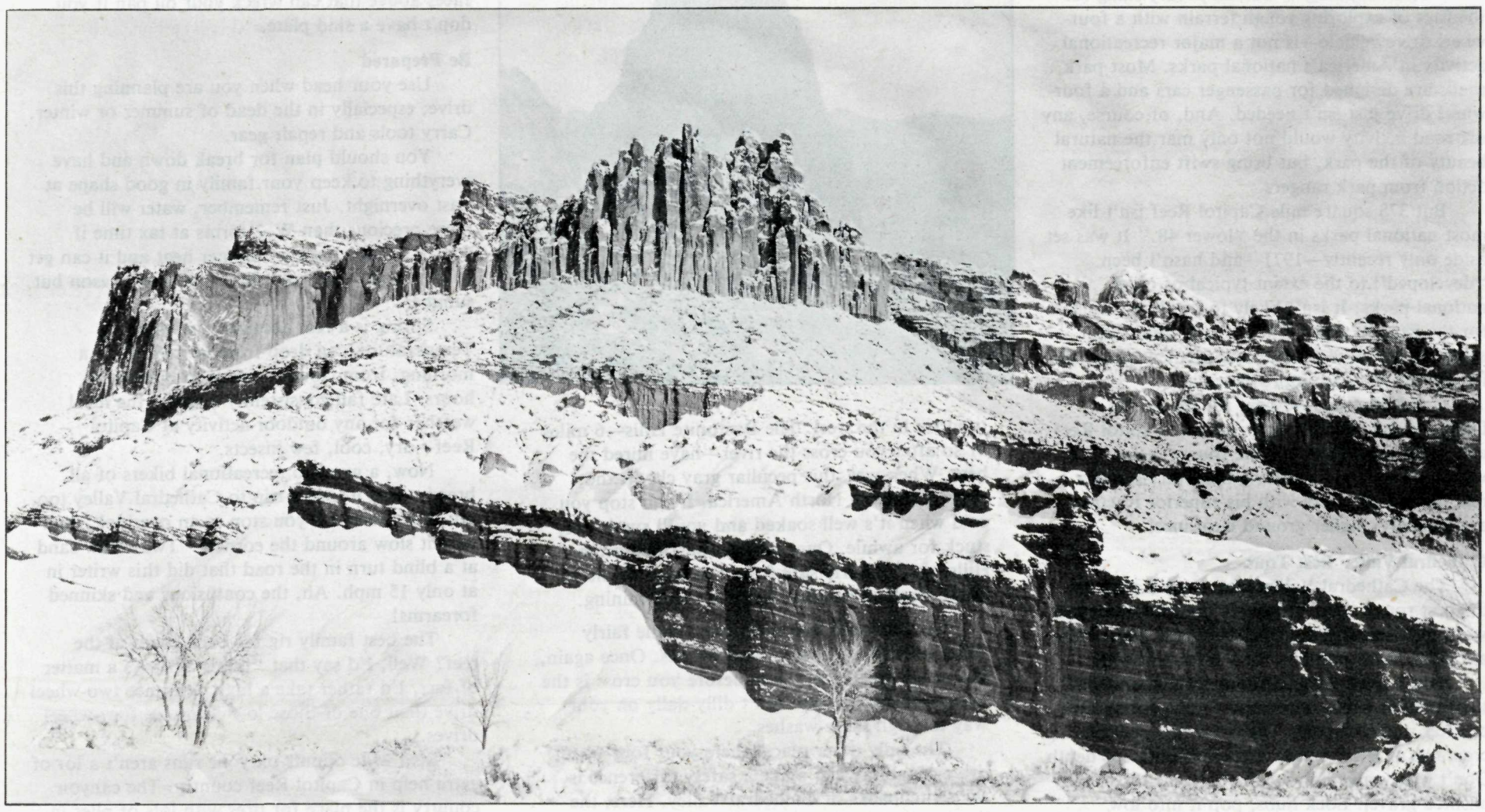
Get A Checklist

Armed with binoculars and patience, your visit to Capitol Reef is sure to be rewarding. Whether you are a serious birder or just curious about a bird you happened upon, stop in at the park visitor center for more information. A bird checklist, a guide to the hiking trails and a park folder are distributed there and a naturalist is sometimes available for personalized help. You may find one or more sales publications helpful.

And don't forget: A good checklist can emerge only from cooperation between the spread-thin naturalists of the park staff and dedicated visitor-birders. Be sure to stop by the visitor center with any unusual sighting information.

This "Pleasuring Ground"

How Capitol Reef Became a National Park



In 1971, Capitol Reef became a national park, one of the "crown jewels" of the National Park system. Few people remember that about 60 years ago two local men—Ephraim P. Pectol and Joseph S. Hickman—laid the foundation for national recognition of this "pleasuring ground."

Today, Capitol Reef National Park comprises 378 square miles of colorful canyons, ridges, buttes and monoliths. About 75 miles of the long upthrust called the "Waterpocket Fold," extending like a spine from Thousand Lake Mountain southward to Lake Powell, lies within the park boundary. "Capitol Reef" is the name of an especially spectacular part of the Waterpocket Fold near the Fremont River.

Early History

Only a few decades ago, the Waterpocket Fold country was one of the most remote corners of the "lower 48." Easy road access came only with the construction of a paved Utah 24 through the Fremont River canyon in 1962.

The earliest traces of major human activity date from about the 7th century when aboriginal peoples occupied the flood plains and high ground near the few perennial watercourses. These people—called the Fremont Culture by archeologists—were related, apparently, to the pueblo-building Anasazi of the Four Corners area. In the 13th century, all aboriginal cultures in this area underwent sudden change; the Fremont Culture settlements and fields were abandoned. A massive drought may have contributed to the changes but no one is sure what happened to these hunter-farmers.

It appears that people did not again settle the area for centuries. When the first white explorers traveled in the vicinity of the Waterpocket Fold, both Utes and Southern Paiute nomads were encountered.

Despite the fact that several early expeditions passed near Capitol Reef, none of them—including those of John C. Fremont—explored the Waterpocket Fold. It was, as now, incredibly rugged—and forbidding.

Following the Civil War, Mormon church officials at Salt Lake City sought to establish "missions" in the remotest niches of the intermountain west. In 1866, a quasi-military expedition of Mormons in pursuit of Indians penetrated the high valleys to the west of Capitol Reef. In the 1870s, settlers moved into high valleys, eventually establishing Loa, Fremont, Lyman, Teasdale, Bicknell (Thurber) and Torrey. Meanwhile, men from the expeditions of Major John Wesley Powell had begun to explore the area and the first modern era explorers saw the "reef" on May 12, 1871 from the slopes of Boulder Mountain.

In the early 1880s, settlers moved into Capitol Reef country. Tiny communities sprang up along the life sustaining Fremont River; Junction (later Fruita), Caineville, Notom, Aldrich, Giles, Clifton and Hanksville were created.

The "Fathers of Capitol Reef National Monument"

Ephraim P. Pectol was born in 1875. As a child he lived in Caineville, a flood-ravaged Mormon settlement a dozen miles east of Capitol Reef. In 1910 he went into business in Torrey and operated a store there for many years. He served as Mormon bishop of Torrey from 1911 until 1928.

Pectol was sensitive to the rugged scenic beauty of the Capitol Reef area and was an avid Fremont Culture relic hunter. A private museum in his Torrey store was widely known.

Pectol was anxious that the outside world should come to appreciate the beauty of the area. He pressed a promotional campaign, furnishing stories and photos to periodicals and newspapers. In this effort he was joined by his brother-in-law, Joseph S. Hickman, who was Wayne County High School principal.

In 1924, Hickman extended community involvement in the promotional effort by organizing a Wayne County-wide "Wayne Wonderland Club." In 1924, the educator was elected to the Utah State Legislature.

Through Hickman's efforts, 16 acres at Fruita were set aside as a state park in 1925. A few days after the dedication, Hickman was killed in a boating accident.

Shortly thereafter, Pectol was elected to the presidency of the Associated Civics Club of Southern Utah, successor to the Wayne Wonderland Club. The club raised $150 to interest a Salt Lake City photographer in taking a series of promotional photos. For several years, the photographer—J. E. Broaddus—traveled and lectured on "Wayne Wonderland."

In 1933, Pectol himself was elected to the legislature and almost immediately introduced a memorial to President Roosevelt asking for creation of "Wayne Wonderland National Monument" out of the federal lands comprising the bulk of the Capitol Reef area. Federal agencies began a boundary assessment. Meanwhile, Pectol not only guided the government investigators on numerous trips but escorted an increasing number of visitors. The lectures of Broaddus were having an effect.

On August 2, 1937, President Roosevelt signed a proclamation creating a small "Capitol Reef National Monument." Thirty-four years later—in 1971—Capitol Reef would become a huge national park by Act of Congress, a "pleasuring ground" for America. Visitors now—and in generations to come—owe a debt of gratitude to two Utahns with remarkable energy and vision.

scene

The Reef and Jeepin'

Try the Cathedral Valley Loop

By George Davidson

"Four-wheeling"—contemporary slang for the joys of exploring rough terrain with a four-wheel drive vehicle—is not a major recreational activity in America's national parks. Most park roads are designed for passenger cars and a four-wheel drive just isn't needed. And, of course, any **off** road activity would not only mar the natural beauty of the park, but bring swift enforcement action from park rangers.

But 378 square mile Capitol Reef isn't like most national parks in the "lower 48." It was set aside only recently—1971—and hasn't been "developed" to the extent typical of older national parks. It isn't likely to be either, at least for the next 20 years. The recently-approved, economy-sensitive general management plan calls for almost no road improvements.

Unpaved roads—except for the Scenic Drive—mean fairly rough roads at Capitol Reef and spells enjoyment for the four-wheeler. The visitor with a four-wheel rig holds in reserve a real margin of safety with his superior traction and (usually) higher ground clearance.

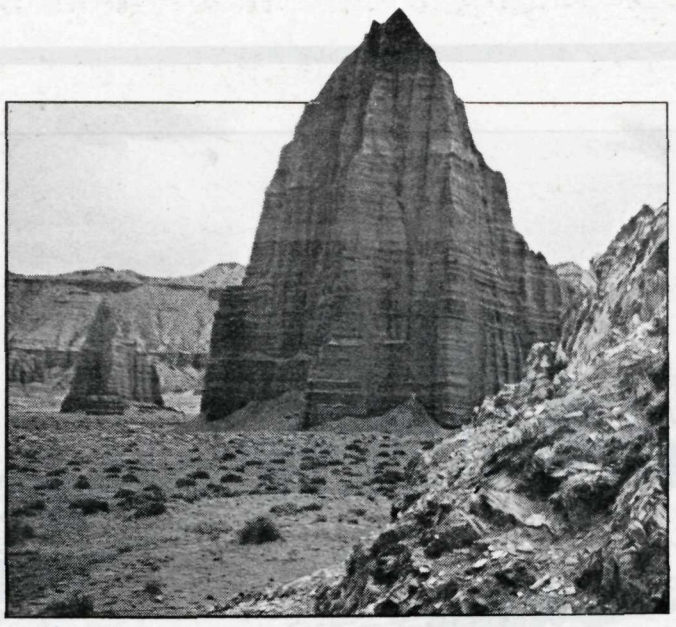
Cathedral Valley Best Tour

The Cathedral Valley loop road is perhaps the best rough road "tour" in the intermountain west, let alone Capitol Reef National Park. Here are a few extra pointers for the four-wheeler.

You'll need some clearance when you ford the Fremont River, especially during spring melt or after a rain shower. There are two possible crossings at River Ford; check out both for depth. Don't worry much about the bottom; it's usually unsilted gravel. Lock hubs, pop it into low range—second gear, if you've got it, and move ahead slowly. My 258 CID six Scout likes low range (high or second) for most of the drive. Big eights may not need it.

Watch that Clay!

If it's been raining hard, reconsider your jaunt to Cathedral Valley even if you're pushing the meanest, most powerful, high clearance, wide-tired rig in the west. The Bentonite Hills—6 miles or so after you cross the river—have mired the best. When wet, this peculiar gray clay is the slickest slime in North America. It can stop you cold when it's well soaked and you'll surely stay stuck for awhile. Once you get past Bentonite Hills, you're fairly safe from this kind of pitfall in the warmer months even if it starts raining.



On your tour you must cross some fairly wide, usually dry, white sand washes. Once again, low range and second gear **before** you cross is the best prescription. But don't dilly-dally on your way through these washes.

The only other place where your four-wheel drive capability can make a safety difference is the switchbacks of Cathedral Valley. Here, the snow stays longest in the spring and builds up quickest in the late fall.

Just remember, take it easy on this rugged, but incredibly scenic road. It snakes and twists; stay well to the right when topping hood-tilting rises or rounding cliff corners. You aren't completely alone out there. There's often some hefty rocks strewn on the roadway from cliff faces above that can wreck your oil pan if you don't have a skid plate.

Be Prepared

Use your head when you are planning this drive, especially in the dead of summer or winter. Carry tools and repair gear.

You should **plan** for break down and have everything to keep your family in good shape at least overnight. Just remember, water will be more precious than W-2 forms at tax time if you're stranded in the summer heat and it can get cold at night, real cold, in every other season but summer.

Spring is a real deceiver, the worst. Temperatures can drop from 60° to 20° in a morning, from cloudless skies to blizzard in hours. Late fall consistently displays the ideal weather for any outdoor activity at Capitol Reef—dry, cool, few insects.

Now, a word to recreational bikers of all breeds. You'll love a trip to Cathedral Valley too, but don't relax till you stop at an overlook. And take it slow around the corners. 'Twas blow sand at a blind turn in the road that did this writer in at only 15 mph. Ah, the contusions and skinned forearms!

The best family rig for back roads at the reef? Well, I'd say that "tall is all." As a matter of fact, I'd rather take a high clearance two-wheel drive than one of those low clearance four-wheel drives.

Real wide donuts on your rims aren't a lot of extra help in Capitol Reef country. The canyon country is the place for tires with lots of plies in the sidewall and an aggressive, probably noisy tread.

Capitol Reef is a great adventure for the responsible four-wheeler. And you can help build a positive image of jeeping; don't even leave turnaround tracks on the edges of park roadways.

Be sure to stop at the visitor center for the latest weather and road condition reports.

SHUTTERBUG SIDE

Good lighting is important for taking dramatic photographs at Capitol Reef. Surrounded by endless beauty, most visitors concentrate on scenery, but correct lighting is also essential for good photos of people, plants and animals.

Lighting Differs

There are four types of lighting to be aware of: sidelighting, frontlighting, backlighting and open shade.

The sheer cliffs are especially impressive in early morning or late afternoon sidelighting. Sidelighting comes from the right or left and brings out stunning details in the rocks. It creates bold shadows on all film and is a favorite with professional landscape photographers.

In the sunny Southwest, frontlighting can be disasterous because it often produces a flat, uninteresting picture. Novice photographers often stand with their backs to the sun while their subject faces the glaring light source. Successful photos **can** be taken in this manner if one does it in the early morning or at dusk.

For pleasing "people pictures," backlighting and open shade are excellent.

Backlighting originates behind the subject and shines toward the photographer. It can be tricky to get an accurate exposure meter reading with backlighting, but results are often worth experimentation; the subject is surrounded by an aura of light.

Open shade is merely a light shady area protected from direct sunlight. Open shade tends to soften features and works well with portraits or closeups of plants or other objects.

Some Hints

—Use a lens shade. This attachment will keep the glare of the bright Utah sun off the lens and reduce distortions in photos.

—Experiment with filters. A "skylight filter" will reduce haze and help eliminate the bluish cast that often appears in long-distance color shots.

—For richer red rock tones, try photographing before 10:00 a.m. and after 4:00 p.m. during the warmer months.

—For deeper colors, underexpose your film from ½ to one full stop. This helps compensate for the washout tendency of the brilliant southwestern sun.

—Experiment with different films. A slow speed transparency film such as Kodachrome 25 will enhance red tones. Other films, such as Ektachromes, produce bluer tones overall.

Think Small Too

What to photograph? Where to go? Just about anywhere you travel within Capitol Reef National Park subject matter abounds. Think small too. Don't be so overwhelmed by the grand scenic vistas that you forget to add some variety to your photos.

Wildflowers add beautiful splashes of color in the spring and late summer. Gnarled and twisted junipers can be interesting. Petroglyphs photograph well and wild animals are always good subjects if you have the right equipment and some luck. This list is endless. The only real limit is your imagination and sense of "seeing."