

## Roaming the West's Fantastic Four Corners

By JACK BREED

With Illustrations from Photographs by the Author

ITH no great eye for beauty, a Mormon newspaper in September, 1861, described southeastern Utah as "one vast 'contiguity of waste' and measurably valueless, excepting for nomadic purposes, hunting grounds for Indians, and to hold the world together."

The labyrinthine canyons, soaring mountains, natural bridges, barren flats, and towering pinnacles of this maligned country still do a fair job of holding the world together. But they are far from "valueless," at least to those who will brave the rigors of travel for the thrill of a forbidding but fantastic spectacle.

### Utah's Gems Have a Rough Setting

This 20,000-square-mile quarter of Utah comprises, in fact, a priceless portion of our scenic heritage, and one that is little known. In it are to be found, among other gems, the forgotten Shangri-la of Chesler Park, the silent stone cities of Devil's Lane and Cyclone Canyon, the surrealist sculpture of the Valley of the Goblins, the great 500-foot pillars of Monument Canyon.

Their setting is the Four Corners Country, that gaunt, erosion-gutted sector where boundaries of four States meet: Utah, Colorado,

Arizona, and New Mexico.\*

One of the largest roadless areas in the United States, the region has always defied exploration by any but the hardiest and most persistent (map, page 711).

Now new roads, spurred by discoveries of oil, natural gas, and uranium, are thrusting inquisitive fingers into the back country. Already a 270-mile route bisects it from Torrey, Utah, on the west to Cortez, Colorado, on the east.

These roads are no boulevards, but they are

passable. As more are added, they will present the touring motorist with an opportunity and the Nation with a responsibility. The opportunity will be to tap a treasure-trove of spectacular, unspoiled beauty. The responsibility will be to ensure that this asset is preserved intact for the enjoyment of generations yet to come.

### Where Indians Speak German

By jeep and horse and station wagon I traveled some 3,000 miles in this area, often jouncing over rangeland, deserts, and scarp, where a dirt track was a highway and a rocky stream bed an avenue.

The long trek started at Cortez, Colorado. Picking up my guide, Rollin Usher, there, I headed south for the Consolidated Ute Agency, 11 miles away.

"Not many people know anything about these Utes," said Usher. "Maybe you can get some pictures."

"All right with me, so long as they don't

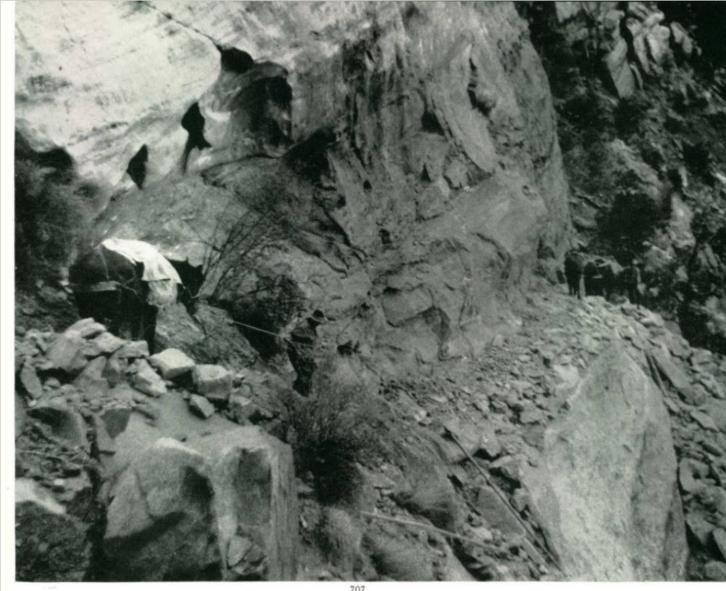
smash my camera."

Under the suspicious gaze of the assembled leaders, I tried through an interpreter to explain our mission. I was making heavy going of it until I tackled the problem frontally.

"What I would like most," I said, "is to take a color picture of the council itself. And I promise to send prints to each member just as soon as I can."

That did it. Solemnly, the council members filed out of the chamber and lined up in front of our station wagon for their portrait. The ceremony completed, we all trooped over to the local trading post for a Coca-Cola.

\* See "Flaming Cliffs of Monument Valley," by Jack Breed, National Geographic Magazine, October, 1945.



Men and Horses Inch Their Way down the Rock-strewn Lip of a Cliff

Descending from Grand View Point to the lower rim of Monument Canyon (page 725), the author's party followed a narrow shelf overlooking dizzy depths. Several animals slipped and hung on the brink until men pulled them to safety (page 712). Here guide Roy Holyoak leads his horse over loose rubble. Earl Worthington, safely across, watches on the right.

of the Abajo Mountains, then turned west to Dugout Ranch, headquarters for the Indian Creek Cattle Company (page 714).

Hidden in a remote canyon, accessible by an unmarked road that is passable only when dry, Dugout has one of the most dramatic locations I have ever seen. The entrance trail twists down through Indian Creek until the canyon itself widens into a flat-bottomed oasis half a mile wide and perhaps ten miles long. Fields of grass and alfalfa, bordered by gently swaying cottonwoods, surround the ranch, while in the background rise ruddy sandstone cliffs a thousand feet high.

Herds of the little-known Indian Creek Cattle Company graze nearly a million and a half acres of publicly and privately owned land. Its wealthy owner, J. A. Scorup, now 79, started at 18 with two horses, a grubstake, and five dollars.

At Dugout we refueled our cars, filled our water tanks, bought last-minute supplies, and headed out through the corral gates. The trail picked up the thread of Indian Creek and followed it through beautiful open areas of grassy rangeland. Ahead of us, North and South Sixshooter Peaks pointed the way.

### Bucking a Three-mile Sand Trap

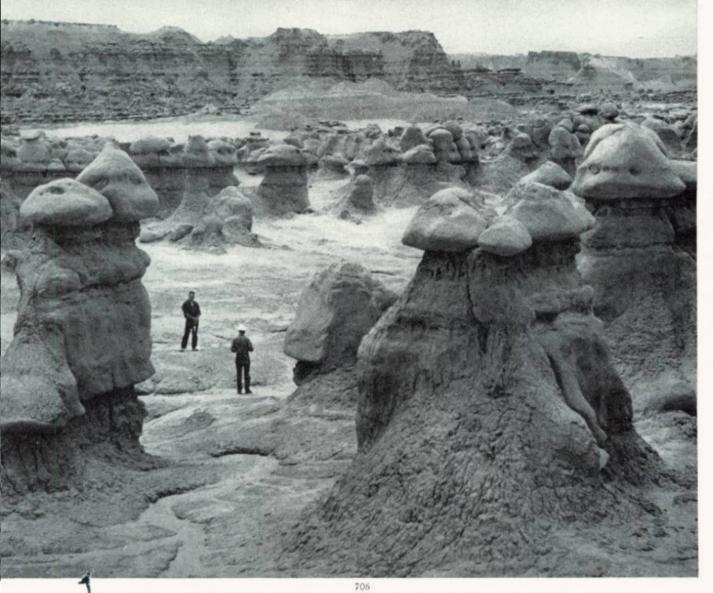
A few miles beyond the ranch we came to the bank of Salt Creek. It was dry as a bleached bone, but beyond it lay three miles of soft, deep sand and many embankments.

"The jeep might get through," said Ross, "but that station wagon won't get 10 feet!"

I looked at the delicate photographic equipment resting safely atop the bed in the rear of the car, and at the other 2,000 pounds of field equipment we had packed in the station wagon (page 730). It would be a tremendous job to take it all out and repack it on restive horses; the jeep itself was already fully loaded.

"I think I'll try it anyway," I called to Ross. "Ben, you and Mac stick as close to me as you can with the jeep—just in case."

I let some air out of the tires and started.



Stone Pillars Capped Like Mushrooms Dwarf Two Explorers in "Goblin Gulch"

The Four Corners Country, where Utah, Colorado, Arizona, and New Mexico meet, is a geological museum. Rock strata lie exposed in towering buttes, deep canyons, and lonely monoliths. Visitors to the Valley of the Goblins, near Hanksville, Utah, find themselves in a Halloween fantasy (page 726). Lateral erosion has whittled a mushroom forest in the gulch. Hard umbrella caps give protection to these formations.

As I handed the last Ute his bottle, he sang

out cheerfully, "Danke schön!"

The trader laughed at my astonishment. "Manager of the post here used to be a German," he said. "The Utes got so they did a lot of their trading in Deutsch."

Outside the post, dozens of Ute women and curious youngsters had gathered (page 728). The minute I produced a camera, however, they scattered like quail.

To entice them out again, we set up a lure, a jug full of green collared lizards I had caught out on the desert with a fishing rod and a noose. Shyly, the Utes reappeared and clustered about the bottle (page 739). But when I started to pull out a lizard for a closeup, Utes of all ages vanished.

This puzzled us. The Utes are accustomed to the desert and its creatures. Surely they must have known that this little green lizard, Crotaphytus collaris, is harmless. We could put down their fear only to superstitionperhaps some notion like that of the Zuñi and other southwestern tribes, who believe that the breath, not the bite, of the lizard is evil and poisonous.

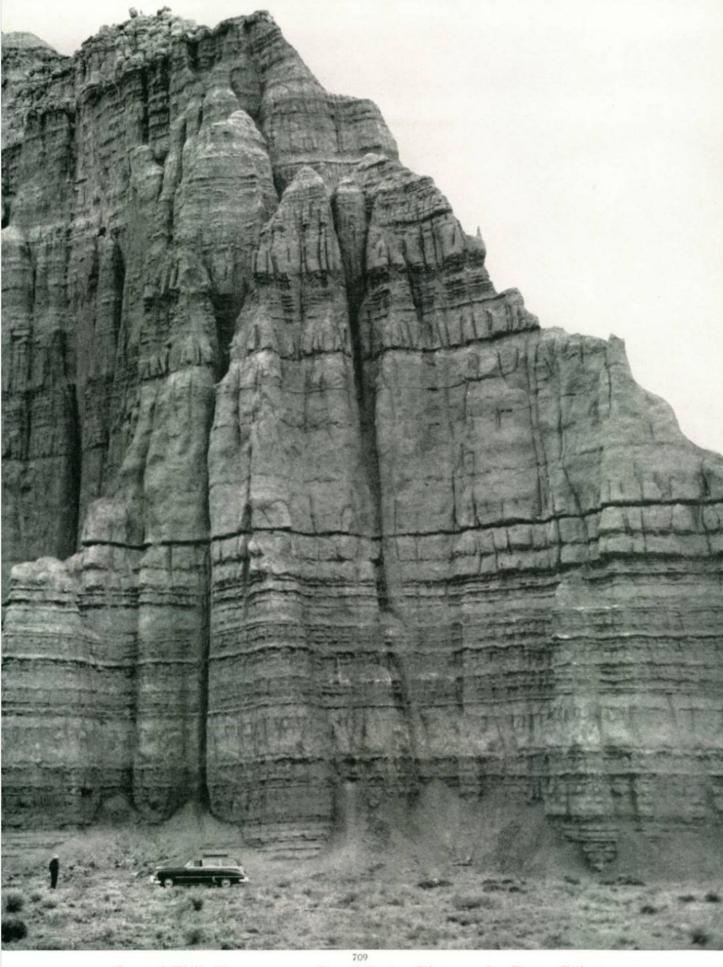
Exploration, however, and not conversion, was our mission. For years I had wanted to make a pack trip into the spectacular and rarely visited Needles country to the northwest. Ross Musselman, I knew, was the man to get me there. We pushed on to his 4-M Ranch, 16 miles southeast of Moab, Utah.\*

### In Search of the Needles

Though born and brought up in Pennsylvania, Ross knows the Needles like a dogeared book. In 1933 he and his brother took a two-months' saddle trip into this section after a pack of wolves. So impressed was Ross that he bought a ranch and moved his whole family out to Utah.

From Ross's ranch our party backtracked for 40 miles toward Monticello at the base

\* See "Utah's Arches of Stone," by Jack Breed, Na-TIONAL GEOGRAPHIC MAGAZINE, August, 1947.



Seamed Walls Frown upon a Dwarf Station Wagon and a Pygmy Driver

Erosion, eating away at ancient fault lines, cuts deep vertical fissures. Horizontal cracks and ridges mark various strata deposited here eons ago when this area was completely ocean.



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### Scornful of Sagebrush, a Pilot Takes Off from Monument Canyon's Inner Rim

Residents of Moab, Utah, were surprised when they learned that supplies were being flown to the Four Corners explorers (page 722). Never before, so far as the author could learn, had planes attempted a landing on the canyon's rugged lower rim. Here the area looks expansive and flat. Actually, a rock ledge marking the canyon's brink lies only 500 feet in front of the plane (page 729).

The station wagon plunged over a five-foot drop into the creek bed, smashing the springs down onto the axles and sending a wave of sand over the car roof.

Jamming the hydramatic transmission into low, I gunned the engine. Like a frightened jack rabbit, the car shot forward, bowling over brush and six-foot junipers and leaping dunes and embankments with all four wheels off the ground.

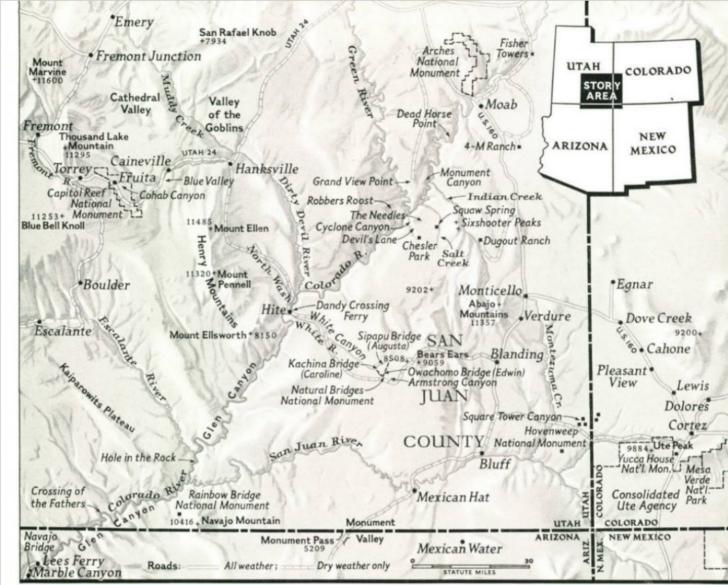
### Chaotic Landscape "Reverses" Compass

My one fear in that hub-deep sand was stopping. But I needn't have worried. The first mile zipped by so fast that it was all I could do to follow the vague and twisting trail. In less time than anyone had believed possible, we had barreled in to Squaw Spring, the site we had chosen for a camp.

We awoke the next morning to make a significant discovery—the sun was coming up just where we thought it had gone down the night before. We weren't exactly original. Ross told us that a New York lawyer he had guided to the Needles one summer swore that "the sun rose in the east only once the whole time I was down there!"

We were, in short, in country as confusing as a Coney Island fun house. For thousands of square miles the land was gouged into a maze of canyons and mesas, split by innumerable fingerlike reefs. In the clear, dry air, some 5,000 feet above sea level, cliffs miles away appeared to be within arrow shot. Completely mixed up, one could be sure of neither distance nor direction.

To add to the unreal, lunar quality of the landscape, we saw no sign of human habitation and scarcely any wildlife. An occasional range rider from Indian Creek passed this way, looking for strays. Ross asserted that coyotes, ringtail cats, lynx, bighorn sheep, and deer had been seen, but the only "native residents" we saw were snakes, lizards, and a few insects.



Drawn by Herbert E. Eastwood and Irvin E. Alleman

### Southeastern Utah Is a Maze of Deep Canyons and Sun-bleached Mesas

Approximately one-fourth of Utah, some 20,000 square miles, lies in Four Corners Country, where the Beehive State touches Colorado, Arizona, and New Mexico. Here Nature has created a strange landscape. Much of the region is roadless and seldom visited. Exploring Monument Canyon, Chesler Park, and the Needles country, the author and his companions penetrated areas far from human habitation.

Yet, if the terrain seemed relatively barren of animate life, it was rich in geologic history. As the stubbornly meandering streams have cut downward and sidewise against hundreds of layers of rock, they have encountered sections which resisted their erosive action. These became the isolated buttes and mesas now dotting the Southwest's horizon. Where whole ridges stood fast against the water's assault, knifelike reefs were left.

### Great Needles, Nature-made

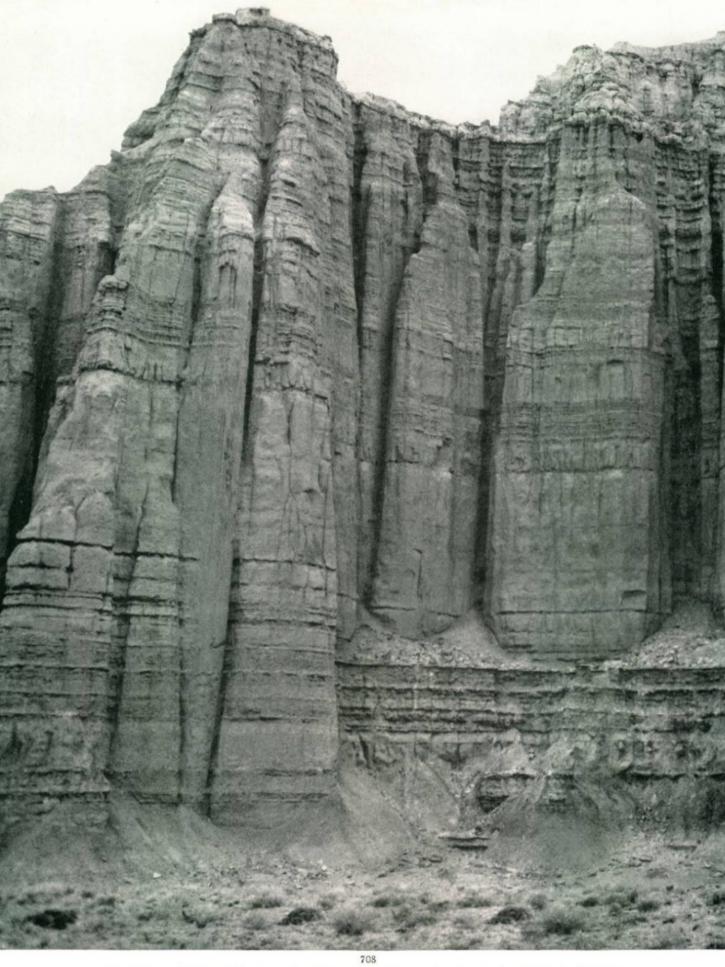
From such reefs developed the weird skyline of the Needles country. Water freezing in the fissures of these ridges broke off great chunks of rock, carved the remaining sandstone into rough fingers; then, aided by dripping rains and wind-blown sand, into sharp pinnacles and sharper "needles."

To see these sights close up, we branched out from Squaw Spring by jeep, horseback, and on foot. Two of our most rewarding spectacles were Cyclone Canyon and Devil's Lane—sheer-walled corridors 14 miles long and half a mile wide.

Usually, in such canyons, the bottoms are a jumble of rocks and debris rolled down by the streams which first cut their way through. Yet at Cyclone and Devil's Lane we found flat grassy avenues unmarred by rubble (pages 716-17). The canyons, without any visible inlet for water, simply dropped off steeply at either end, like skyscrapered streets at the brink of a gulf.

Even more beautiful was Chesler Park. We approached it by jeep over a 300-foot escarpment, thence down Devil's Lane, and finally through a well-masked passageway in the park's ring of stone towers.

Chesler, named for a rancher who drove cattle into it in 1885, is little more than three miles square but as lovely a spot as the West affords (page 715). Its warmly colored walls rise 600 feet, shutting it off from everything but the clear, blue sky. On its floor lies a blanket of thick grass, patched with acres



Sandstone Pillars Cling to the Timeworn Face of a Butte in Cathedral Valley

Massive formations shaped like Gothic churches gave the valley its name (page 734). Wind and rain may eventually detach these columns from the cliff, forming pinnacles like those on pages 720 and 721.

of yellow wild mustard; a spring provides fresh water.

We pitched camp in a giant cave hollowed from a stone island in the park's center. This reef was a lovely place. Perhaps half a mile long, it built up to a cluster of pinnacles about 400 feet high.

The cave we used was one of several carved from the island's base. Cowpunchers for half a century or more have used them for camp sites and, by building fences across the mouths of the larger ones, for corrals as well.

Relaxing in our particular niche, we studied the delicate coloring of the park walls—the salmon, gray, pink, beige, and tan shades which gave the little valley such a serene and harmonious feeling. Here was a good place to forget all the problems of the outside world.

Yet even paradise can pall, and we had other sights to see. Packing back to Moab, we dropped in at Howard Shields' Red Rock Lodge and contemplated our next step.

### Peering over Grand View Point

Several years before I had stood at the end of Grand View Point, between the Green and Colorado Rivers, and looked straight down into a strange side canyon of the Colorado. It was not a large or even a beautiful canyon, but it had some gigantic pinnacles rising from its floor that looked well worth investigating.

In Moab little was known of this place beyond its local name, Monument Canyon. Situated in wild country, it was thought to have been probed by no more than a dozen individuals at most.

Climbing into a little plane owned by my friend Puge Stocks, I set out one morning to reconnoiter. Puge bounced the craft off the cow pasture behind his house and spiraled upward above the scarps surrounding Moab.

In a few minutes we covered the 25 miles downstream to Grand View Point. Puge, at my request, circled the cliff, then zoomed down into Monument Canyon itself (page 723).

It was an impressive but discouraging sight. The cliff itself was as straight and sheer as the Empire State Building, and twice as high (page 725). Nor did it look possible to climb from the Colorado's deep-cut bed up to the bench, or plateau, on which Monument Canyon sat—a canyon above a canyon. We flew back to Moab.

A trip out to the point by car left us as perplexed as before. Then Roy Holyoak, Moab rancher, told us he had taken horses over Monument's rim once before and knew he could do it again.

Quickly we organized a pack trip. Russ Mahan and Earl Worthington of the National Park Service got time off to join us. Puge Stocks and Glen McFall agreed to shepherd us from the air and to drop supplies as soon as we located our camp.

By noon of one May morning we were ready. The pack mules and saddle ponies had been trucked to Grand View Point (page 731). All we needed was a trail down over the rim.

### Moving a Tree Reveals the Trail

"Where do we go from here?" I asked Roy.

"Just walk over to the edge, move that dead
juniper out of the way, and you'll find a trail."

Russ and I had passed that spot several times and had never seen a sign of a break in the rim. I moved the dead tree. Sure enough, there was a two-foot gap leading down to a narrow shelf notched against the cliff. Below lay more than 2,500 feet of very empty space.

I turned to Roy. "You mean we're going to take horses down that?"

"We sure are," he said with a grin. "Let's

All went well for the first two switchbacks down the sheer cliff face. By then Roy was on the fifth level, and the rest of us were on successive rungs above, as if on a stepladder (page 707).

Suddenly Earl's pack mule became frightened, cut inside his horse, and shoved it halfway over the precipice. The other animals, panicky, began to bunch and to let loose a rockslide that forced Roy to duck under a ledge.

### Traffic Jam on a Precipice

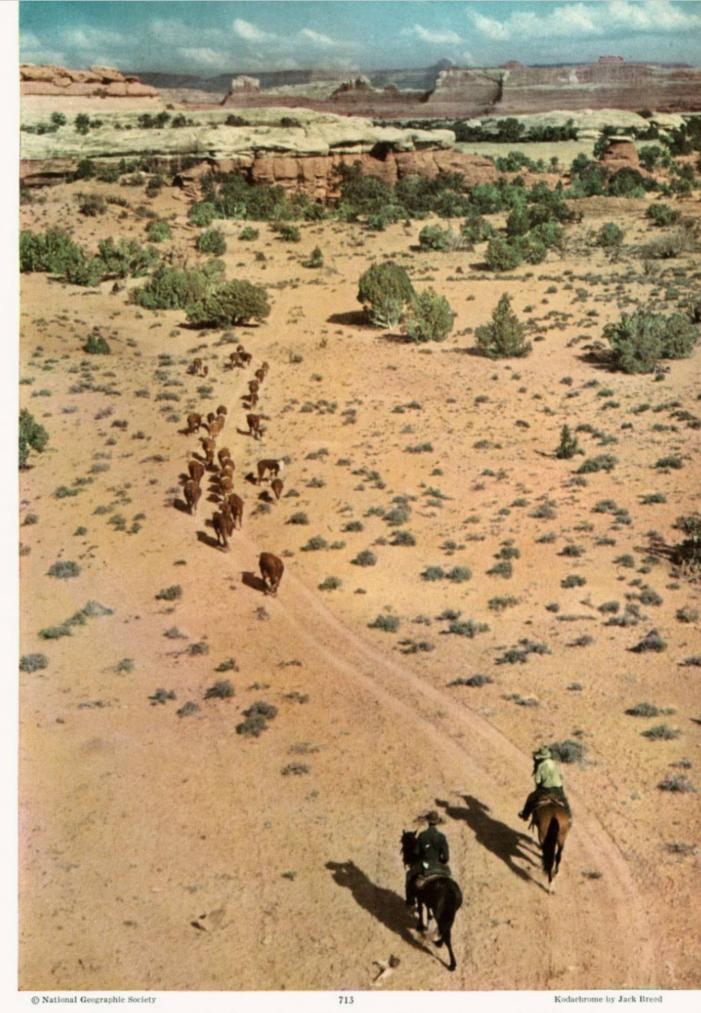
Where the horses and mules had huddled, the trail was less than three feet wide. Earl's mare was sitting on her haunches, her back to the cliff, pawing desperately at the ledge for some kind of foothold. We thought she was a goner, that she would slip off to her death on the rocks far below.

In perhaps half a minute, which seemed like half an hour, she managed to catch one front hoof in a tiny crack and to regain, momentarily, her balance. But now all the pack mules decided to turn around. In no time, three of them had their rumps to the rock wall, their forequarters hanging over the abyss, while the fourth animal tried to jam itself behind the others.

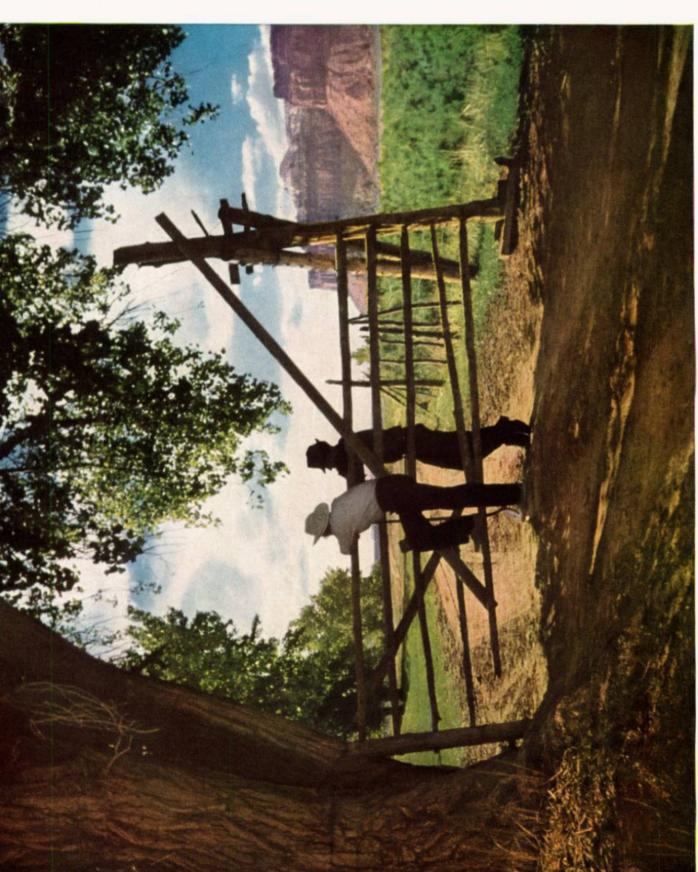
Earl took a chance. He picked up a rock and heaved it at the fourth mule. It worked. The animal backed away and stood still.

As Roy led his own horse and mule down to the bottom and slowly climbed back himself, we all froze where we were, and the animals, luckily, followed suit. Soon Roy and Earl, inching up the trail, managed to reach the bunched beasts, disentangle them, and lead them, one by one, to safety.

Letting out a great sigh of relief, we made



Utah Cowboys Round Up Strays in a Wilderness of Gaunt Buttes and Hidden Canyons



# Travelers Who Pass This Gate Leave Comfort Behind

Beyond the tree-lined entrance to Dugout Ranch lies a pitted, tortuous trail leading to Utah's beautiful and little-known Needles section, one of America's last frontiers.

From here the Breed party began an arduous pack trip, one of several sorties into the remote Four Corners Country northwest of the junction of Utah, Colorado, Arizona, and New Mexico. The author logged 3,000 miles in this area during a summer's travel.

Dugout Ranch, owned by the Indian Creek Cattle Company, is tucked into a remote canyon walled by russet cliffs. No roads lie beyond the ranch gate.

beyond the ranch gate.

Fresh water is obtained from an occasional spring or rain-filled pothole; gasoline must be carried in.

To those who venture into the Needles area, weather is the all-important factor. Sudden rainstorms, flooding narrow canyons, can spell disaster.

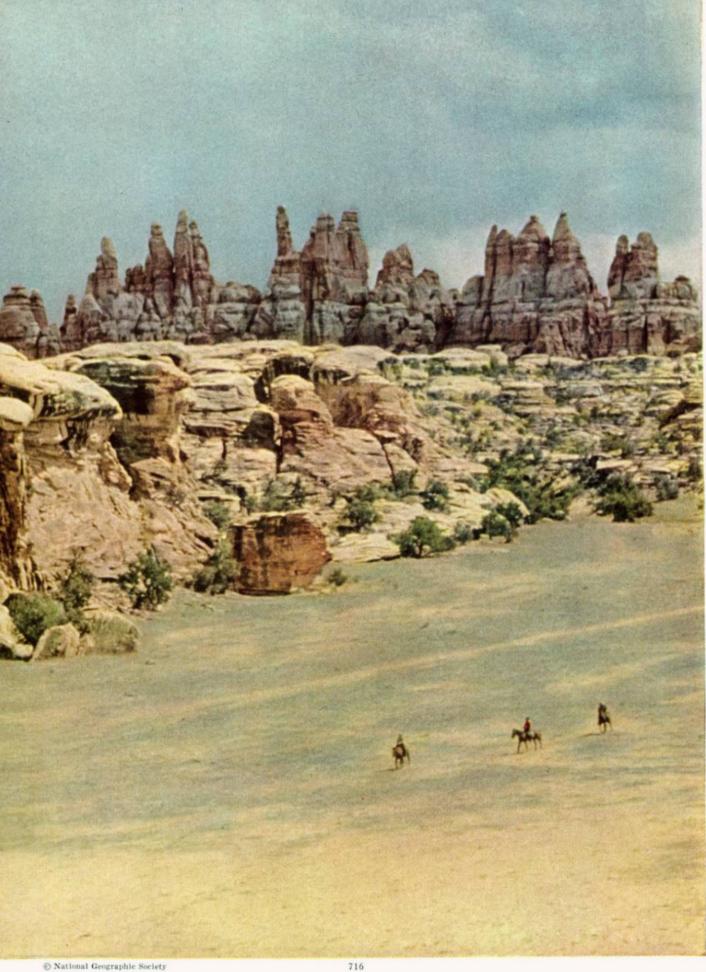
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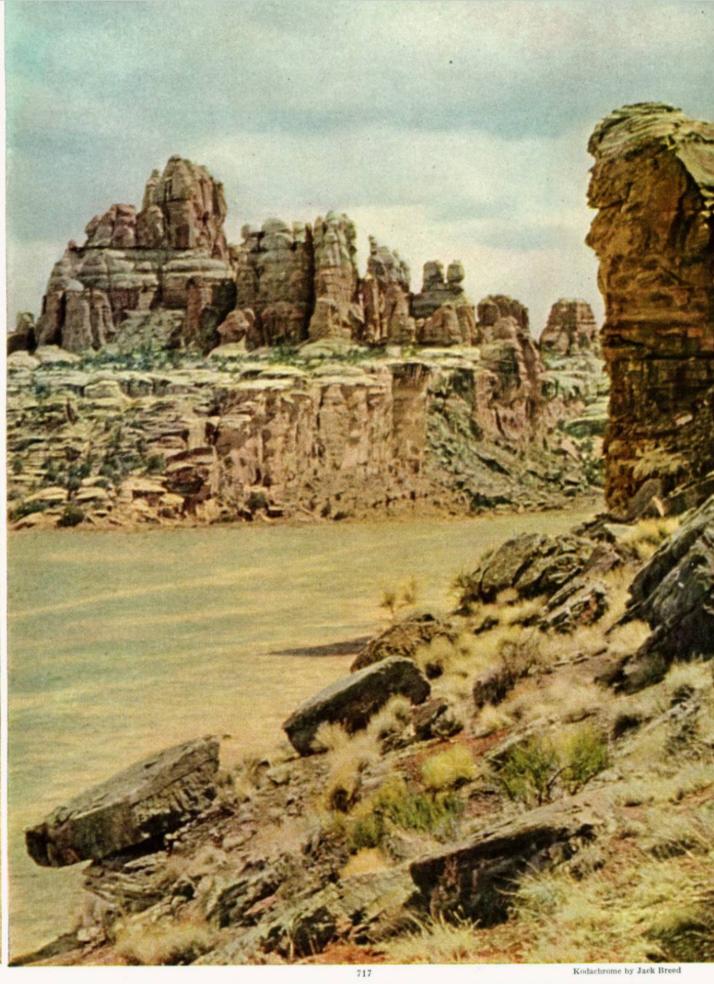
Kodachrome by Jack Breed

Water, wind, and frost shaped these sandstone battlements. They enclose three square miles of verdant parkland in the heart of the Needles region. The jeep bumped its way into the meadow through a hidden passage between rock towers. The park was named for a pioneer Utah rancher. Chesler Park's Eroded Spires Ring a Green Oasis. In This Southeastern Utah Setting a Jeep Looks Like a Discarded Toy

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Utah's Wild Four Corners Country Is One of the Largest Roadless Areas in the United States

Travelers often become hopelessly confused in the maze of canyons. Said one visitor, "The sun rose in the east
only once the whole time I was down there!"



© National Geographic Society

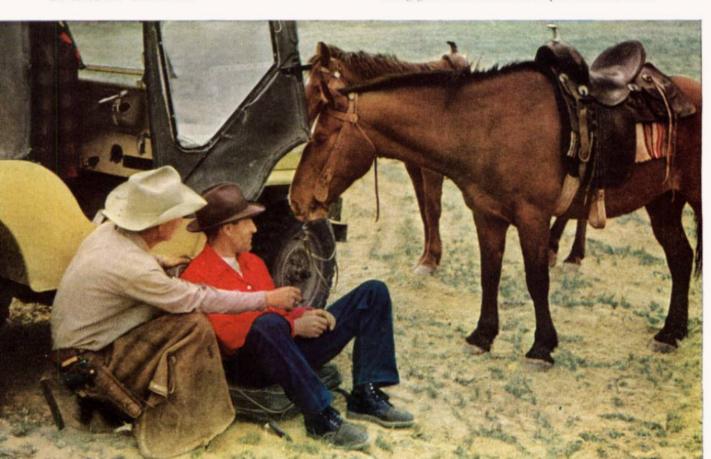
### Switchback Trails Force Jeeps to Zig in Low, Zag in Reverse

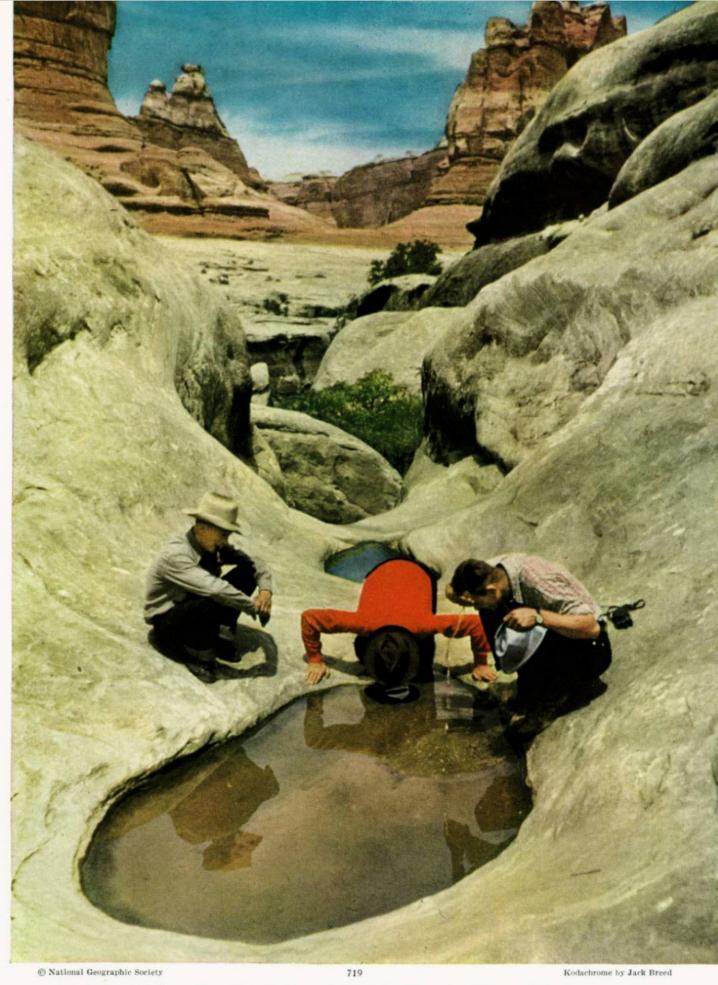
On the Four Corners range, a cowboy's best friend is often his jeep. Backing up, then edging forward, he negotiates winding trails which cattlemen have hacked in the sandstone hillsides. Conical buttes (background) are called the "Coke Ovens."

Kodachr

### Horse and Man Seem to Agree: It's Tough Going

Jeeps and station wagon jolted and pitched into all but the most remote crannies of the Needles country, then the men took to horseback and shanks' mare. Saddle-sore Ben Cornwall relaxes on a jeep seat; guntoting guide Ross Musselman squats on boot heels.

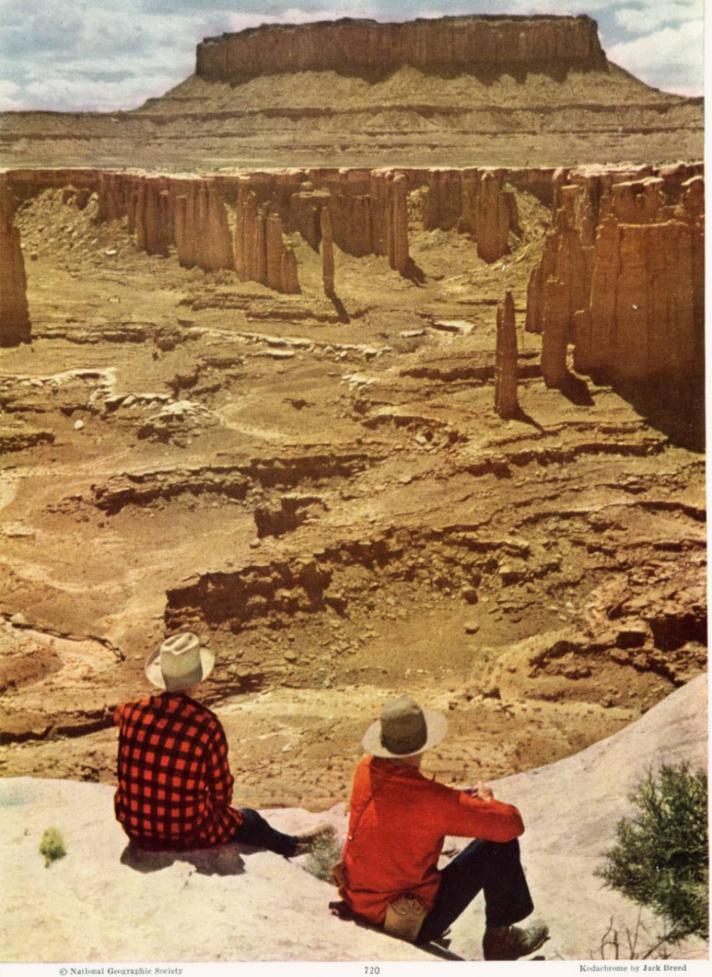




By Desert Code, a Man May Drink and Cool His Brow but Never Bathe in a Pothole

Even at 6,000 feet in early May, the sun parches those who thread the Needles. Water is too precious to pollute. The

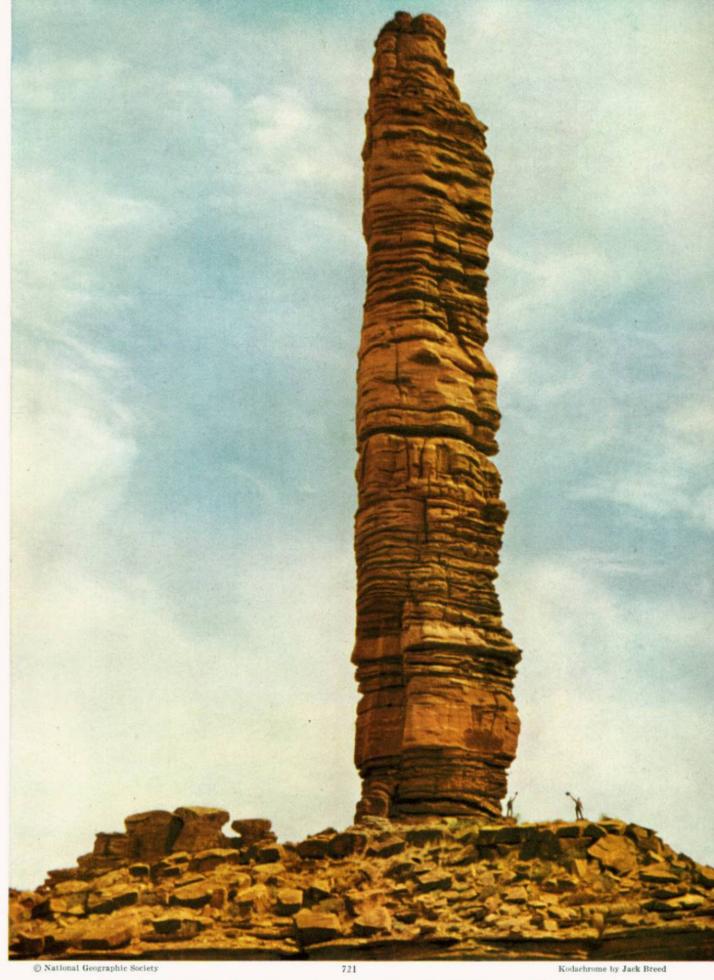
expedition often timed its forays to follow heavy rains that would pack sandy trails and fill the pools.



From Monument Canyon's Brink, Pylons Hundreds of Feet Tall Appear Like Toothpicks

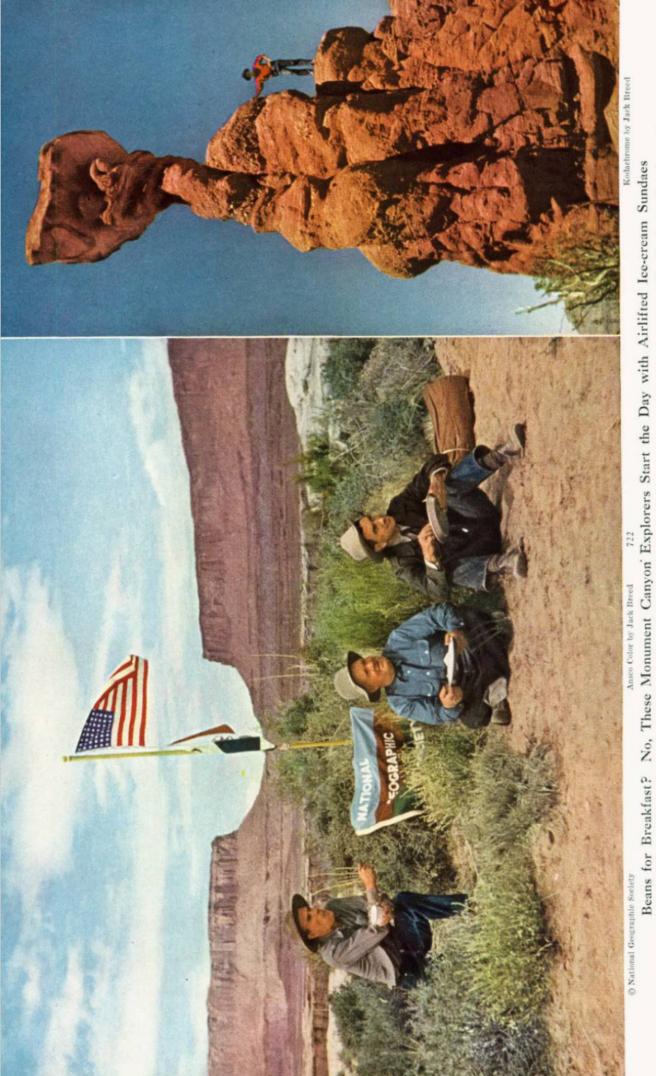
Down this almost perpendicular cliff, the party on horseback rode a dangerous trail to reach the canyon's lower rim.

Near by they cleared an airstrip and landed planes. Afoot they explored this scarred pit and its lonely pillars.

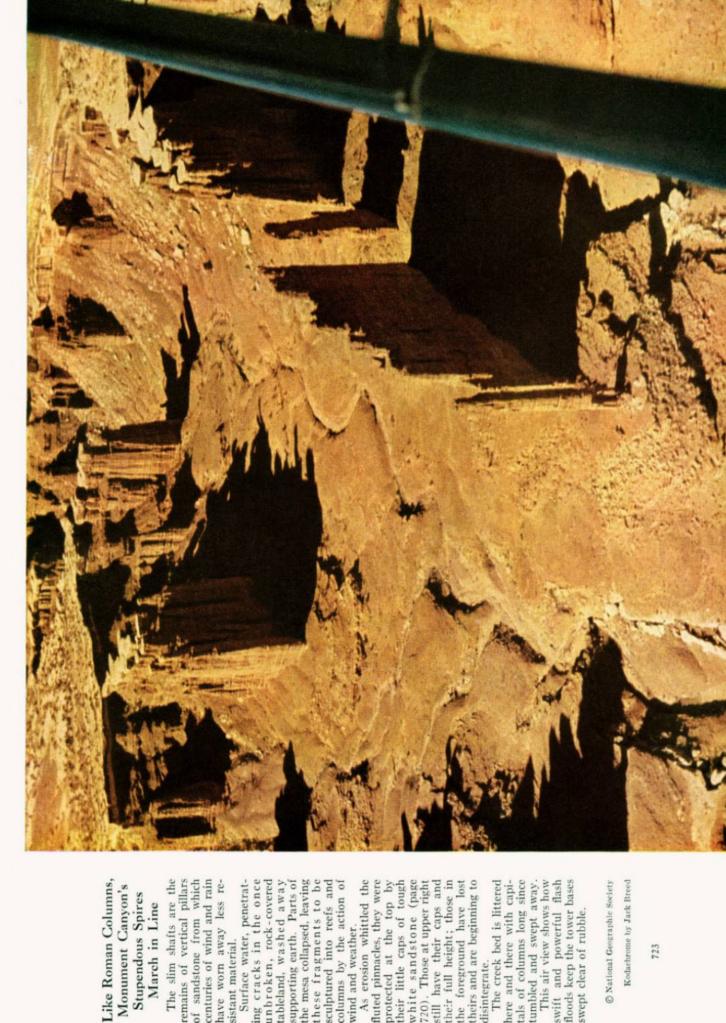


Nearly as High as Washington Monument Rears This Geologic Yardstick

Buttes and columns were formed when layers of hard rock resisted time's assault. Hat-waving men emphasize the monolith's height, estimated at 500 feet. This monument appears in the upper center of the opposite page.



Bush pilots bounced to a landing on an improvised airstrip near this flagpole. They brought newspapers, mail, milk, and sundaes. The Explorers Club flag curls around the staff; National Geographic's banner drapes a bush. Right: Donald Duck Rock stands in the Fisher Towers area. Erosion may soon behead poor Donald.



Like Roman Columns, Monument Canyon's Stupendous Spires March in Line

The slim shafts are the remains of vertical pillars of sandstone from which centuries of wind and rain have worn away less resistant material.

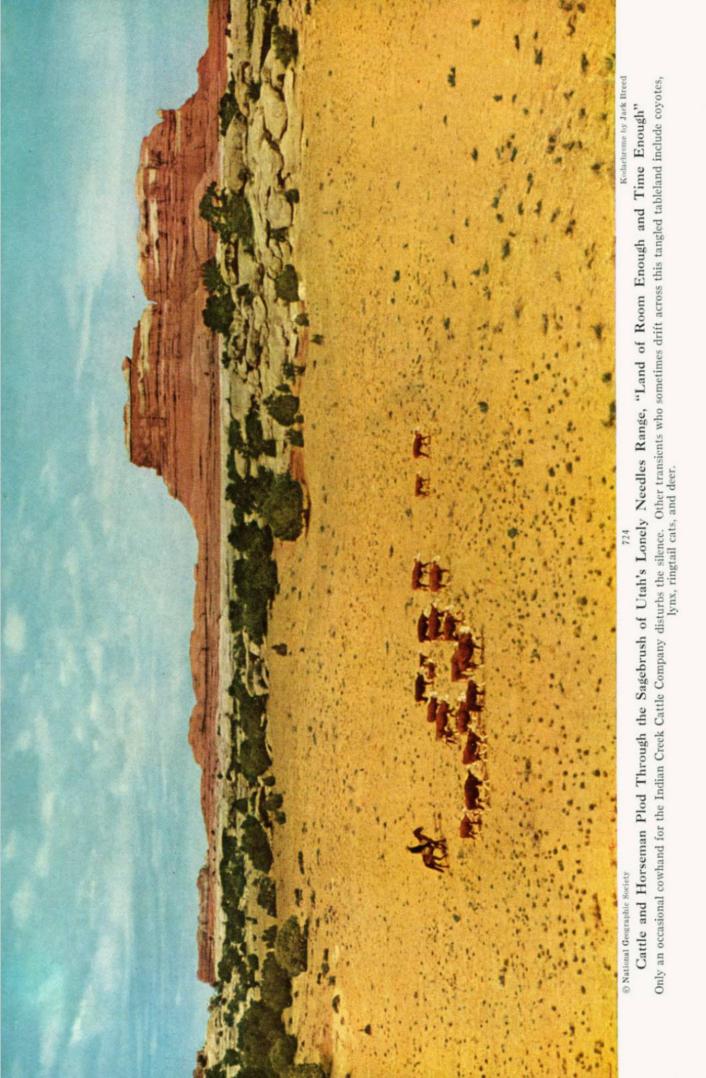
supporting earth. Parts of the mesa collapsed, leaving Surface water, penetrating cracks in the once unbroken, rock-covered tableland, washed away these fragments to be sculptured into reefs and columns by the action of wind and weather.

720). Those at upper right still have their caps and their full height; those in the foreground have lost As erosion whittled the fluted pinnacles, they were protected at the top by their little caps of tough white sandstone (page theirs and are beginning to disintegrate.

tumbled and swept away. This air view shows how tals of columns long since The creek bed is littered here and there with capiswift and powerful flash

Kodachrome by Jack Breed © National Geographic Society

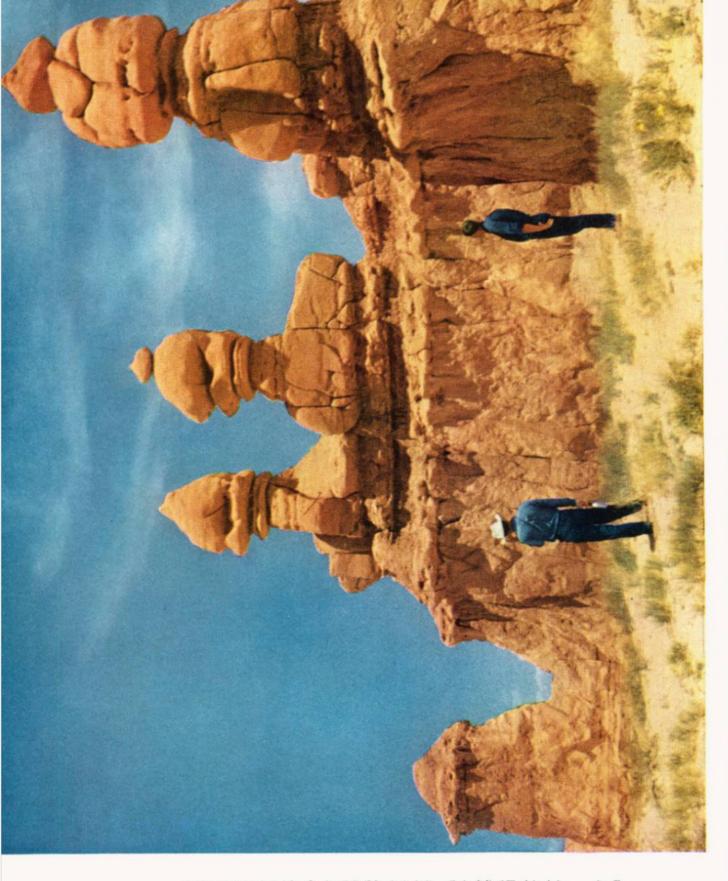
swept clear of rubble.



# Tired Horses Enjoy a Well-earned Drink after a 2,500-foot Climb down Grand View Point (Background)

Men and mounts descended a ribbon-thin trail to reach this pothole on the rim of Monument Canyon. To make sure that water would be available after the rough ride down the cliff, the party waited until after a rainstorm to begin the trip.

Kodachrome by Jack Breed ( National Geographic Society

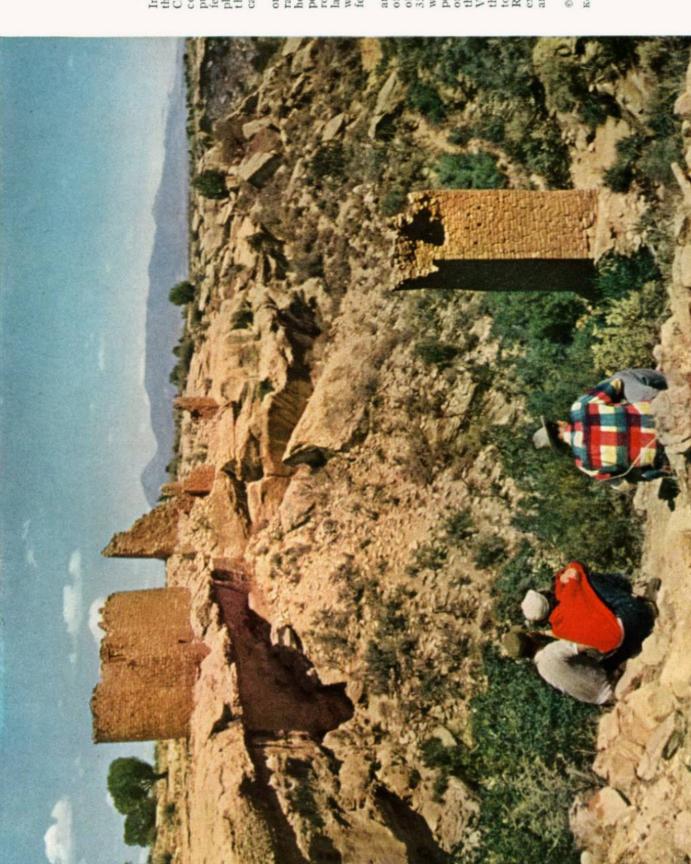


Meet "The King's Men," Three Stone Goblins Guarding a Gulch Nature posted these sandstone sentinels at the entrance to the Valley of the Goblins, 10 miles north of Hanksville, Utah. Here the forces of erosion have cut a labyrinth of small canyons, each with its own surrealist sculpture—grotesque golf balls, birds' heads, dumbbells, tanks, and turtles.

One weird column of marching figures has been dubbed "The Parade of the Bed Bugs"; another is called "The Four Sisters." There is a nightmare formation entitled "The Whatmot," and a nameless pinnacle with a sandstone "cloud" at its peak.

In recent years "Goblin Gulch" has become a popular attraction. Geologists, fearful of vandalism, have recommended that the area be placed under National Park Service protection. Erosion will topple many formations. Careless visitors could decapitate many more.

© National Geographic Society Kodachrome by Jack Breed



# From These Forts a Vanished Race Defied Intruders

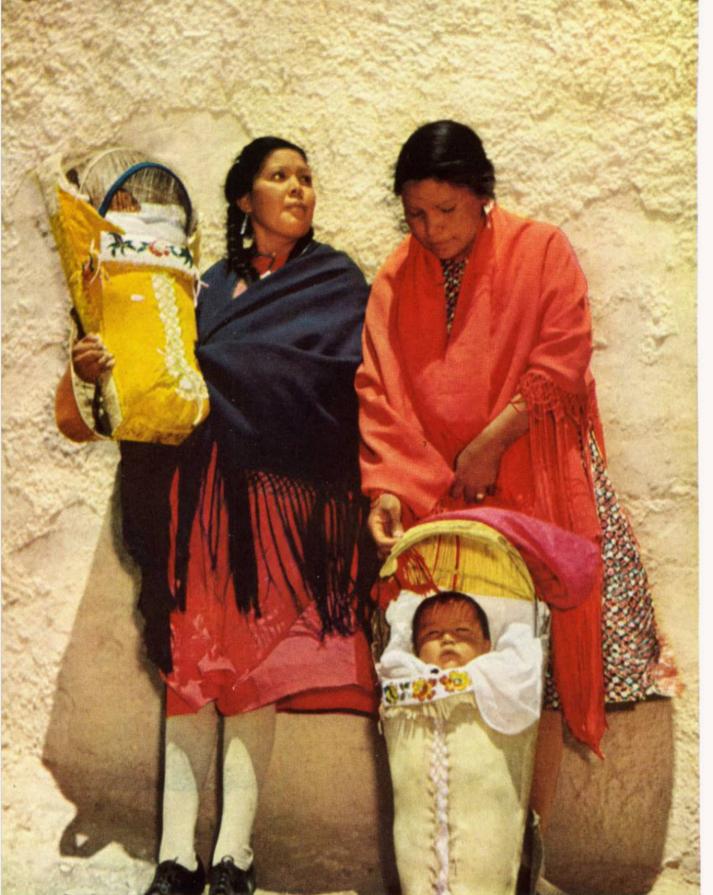
Prehistoric Hovenweep Indian structures such as these at Square Tower Canyon in Utah have no counterpart in modern pueblo architecture. Defensive in design, they were placed along the rimrock at the heads of boxed-in canyons, near springs.

As a rule each tower had one door, protected by rampart or parapet. Peepholes at strategic points permitted unobstructed arrow shots at foes. The largest building, Hovenweep Castle, has walls 60 feet long and 20 feet high.

Near-by cliff dwellings and pueblos show evidence of a civilization like that of the Mesa Verde Indians, 35 miles to the east. But whether the Hovenweep people preceded, followed, or were contemporaries of their relatives at Mesa Verde, and what caused them to abandon their tower-towns, is unknown, tower-towns, is unknown, Ruins and mounds still unexcavated may hold the answers.

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Kodachrome by Jack Breed



© National Geographic Society 728 Ektachrome by Jack Bre

### Ute Mothers Display Sleepy Papooses Tucked Away in Snug Cradleboards

Before the white man's coming, Ute Indians roamed over most of the territory now included in Colorado's boundaries. Trappers, miners, and settlers gradually drove the tribesmen into the State's barren southwestern corner, where their descendants live today. Nomadic Wiminuche and other Ute tribes are under the jurisdiction of the Consolidated Ute Agency, Ignacio, Colorado. These women belong to the Wiminuche branch. Their men discourage visitors, but the tribal council voted the author special permission to make pictures. Mothers strap infants on their backs; each cradleboard has its sunshade.

a quick resolution. For the rest of the descent we would allow only one group at a time to go down the scarp; the rest could wait at the top for their turn.

This system prevented any further mishaps until we were nearly at the bottom. Then, on the steepest part of the trail, the rear cinch on one of the mules broke. At once the 300-pound pack began to slide up over the animal's head. Blinded, the mule swayed, slipped, and hung pawing the rock, half over the brink.

This time we were ready to write off the mule as a casualty for sure, but we reckoned without its will to live and without Roy's alertness. Somehow the mule held its footing; somehow Roy got up the trail in time to grasp

its reins and yank it back to life.

Once on the lower rim, we found the route to the canyon's edge an easy ride. From its lip we stared out across rocky and barren country, awed as much by the sheer size and knifelike abruptness of these cliffs and canyons

as by their coloring (page 720).

When we had drunk our fill of this stupendous sight, Roy led the way back to a sandy grove of junipers. Here we set up camp and raised the flags of the National Geographic Society and the Explorers Club of New York (page 722). Sleeping bags were rolled out on the sand, a fire started, and a rich mulligan stew set bubbling in the Dutch oven.

### Visitors Drop In, the Easy Way

At sunrise we arose for a vigorous day with the cameras, only to be greeted with rain and a heavy overcast. "No pictures today," I sighed.

Saddling up, we set out to explore the base of the cliff anyway when suddenly, down over the end of Grand View Point, appeared two airplanes—Puge Stocks and Glen McFall.

Galloping down to a small, sandy slope about two miles from camp, we waved frantically, and wings dipped in recognition.

"I think he's going to land!" yelled Russ in amazement, pointing at Stocks' plane.

He was. Swooping low over the rim, scornful of rocks, cacti, scrub, and potholes, Puge plunked his craft down on the little slope. His landing gear vibrated like a banjo, but didn't snap. Soon Mac brought his Taylor-craft right down beside Puge's.

Roy Holyoak, who had ridden pack trains all over this terrain, seemed unable to believe his eyes. "An airplane on the rim of Monument Canyon! And not one, but two. The folks back in Moab just aren't going to believe

this."

Puge shrugged off such talk. "Here's your milk, the mail, and the morning paper," he said briskly. "Now let's clean up this airstrip a bit." We sat and stared at him. That hair-raising trip by pack horse down the cliff face, the tedious trekking, the careful planning—had all that work been unnecessary? Wryly, Roy Holyoak summed it up: "Well, I guess those two-wheeled buzzards have finally replaced the horse for this country."

### Down into Monument Canyon

We had still to essay the depths of Monument Canyon on foot. From the rim it didn't look too difficult. Closer inspection, however, showed that the rim had a bad overhang with a 50-foot drop to the closest talus slope. With a long rope we might have slid over, but it would have been quite a job to get back up.

Roy, as usual, came to the rescue. Poking around, he revealed a hidden break in the rock which let us squeeze under the overhang and then, by a series of switchbacks, descend to the slopes of rubble slanting down to the can-

yon floor.

In 15 minutes we were on the bottom and studying the fantastic 500-foot monoliths (page 721). From a distance their fluted sides resembled the windowed walls of skyscrapers. On their topmost floors some of them wore, like little observation platforms, a protective cap of white sandstone. Standing on it—if one could scale that height—one would be nearly as high as tourists at the top of the Washington Monument and blessed with as striking a view.

The feeling I had had when skimming over the canyon by plane was reinforced by acquaintance with its pillars from below. They were not so much beautiful as overwhelming. I was reminded of a brilliant passage from Wallace Stegner's book, *Mormon Country*, in which he describes such great strata as "two or three petrified minutes of eternity."

To face them, he asserted, is "worse, in some ways, than facing eternity itself, because eternity is a shadow without substance. Here is the residue of a few moments, geologically speaking. Here are thousands of feet of rock patiently deposited over millions of years, buckled up into the air with the slow finality of an express engine backing into an orange crate, and as patiently being worn away over other millions."\*

### Canyon a Box-within-a-box

We found the canyon floor virtually barren of vegetation except for a few clumps of bunch grass studded along the talus slopes. But, though rough and trailless, it was open and not hard to explore.

The canyon itself was a kind of box-within-

\* Copyright, 1942, by Wallace Stegner, New York, Duell, Sloan & Pearce, Inc.



The Author Surveys a Wagonful of Equipment. What a Repacking Job He Faces!

Among the items are tools, extra parts for the engine, first-aid kit, double bed, gas stove, fishing tackle, seven cameras, and more than \$1,000 worth of film.

a-box. The outer box was the main rim of the Colorado gorge, some 2,500 feet above the rim of Monument Canyon. This rim, where we made our camp, forms the inner box. Set within that inner box is Monument Canyon, its floor some 600 feet below the rim.

Perhaps just because it was a relatively small canyon, Monument's great reefs of pinnacles seemed all the more impressive. Even more striking, however, was something that wasn't there—noise. The canyon was silent with a silence that was almost tangible.

The cry of a hawk echoed the full length of the canyon, and even the beat of its wings could be heard for nearly a mile. Then all would be as still as if Nature herself were holding her breath, until a big chunk of capstone would break away from its pinnacle top and crash to the floor with the roar of a dozen thunderstorms.

May is a treacherous month in southern Utah. Great storms build up over the Kaiparowits Plateau and come bellowing up Glen Canyon with torrential cloudbursts and stinging winds. Such storms drove us at last from Monument Canyon.

Back in Moab, Bates Wilson, superintendent of Arches National Monument, and his son Tug joined Ben Cornwall and me for a jaunt down to the Natural Bridges country. Taking U. S. Highway 160, we sped south past our old turn to Indian Creek and on to Monticello.

### Atomic Age Comes to Back Country

Long the isolated seat of San Juan County, this cool, green little Utah town—founded by Mormons—has now become the center of an oil and uranium boom. Huge mills at Monticello and in Colorado and a new pilot plant at Hite, on the Colorado River, work night and day to process ore hauled in by truck from all parts of the Four Corners sector.

Oil companies, using airplanes and helicopters, are mapping many locations from the air. Teaming up with the Atomic Energy Commission, the State, and the county, they are now striving to improve existing roads and to lay new ones.



731

### Rough Going Ahead! Only Horses and Mules Can Conquer Some Utah Trails

After an aerial survey (page 723), the author and party decided to use a pack train for the perilous descent into Monument Canyon. "I've done it before—it can be done again," said rancher Roy Holyoak. From Moab the animals were trucked to Grand View Point to begin a hair-raising trip down the face of a 2,500-foot cliff. Here Holyoak unloads a horse, assisted by Earl Worthington, Swanee Kerby, and Russ Mahan.

What this has meant to sleepy San Juan County can more easily be imagined when it is recalled that maps of this, the largest county in Utah, have up to now contained blank spaces as large as Rhode Island, spaces never even surveyed and barely explored. A few Mormons and a few "Gentiles" (non-Mormons) have farmed patches here and there and run cattle over its sparse range. Now they are awakening to find themselves suddenly at a focal point in the Atomic Age.

### Zeke's Best Friend Was His Mummy

From Monticello we continued southward to Blanding and over the Bears Ears route to Natural Bridges National Monument.\*

First custodian of the monument, and its greatest enthusiast, was Zeke Johnson. He served his first eight years for wages of \$1 a month, picking up what he could on the side by renting horses and acting as guide.

Finding an Indian mummy once, Zeke carefully reburied it in a small cave. When visitors

came to see the bridges, he would sometimes suggest they climb up to this cave and scrabble for arrowheads. Invariably, with enormous excitement, they would "discover" the mummy. Zeke pulled this stunt so often he wore out the mummy.

Thanks to Zeke's more serious labors, it is now possible to drive a car within sight of the first and most spectacular of the monument's three bridges: Owachomo, a slender 180-foot span now worn to a mere nine feet thick (pages 736-7 and 738).

From Owachomo a trail leads three miles down Armstrong Canyon to the massive Kachina Bridge, christened to honor the pictographs, found on an abutment, which so much resemble the Hopi masked dancers, or kachinas. By far the thickest of the bridges, 93 feet, Kachina is steadily being scoured to more shapely dimensions by the White River.

\* See "Colossal Natural Bridges of Utah," NATIONAL GEOGRAPHIC MAGAZINE, September, 1904.

Sipapu, the third and largest span, rises several miles farther up White Canvon (opposite page). Its proportions are impressive: 268 feet long, 53 feet thick, and 220 feet high. Because its abutments now sit back a long way from the stream's main channel, the water can no longer exert much erosive pressure on the great arch.

Sipapu's geological origin, like that of the others, is simple. At a sharp bend of a meandering river, water seeking a straighter course eventually bored right through the rock wall. Sand blown by the wind polished the hole and left the finely contoured span we see today.

Not quite so simple was the matter of nomenclature. Owachomo, Kachina, and Sipapu were once known, respectively, as Edwin, Caroline, and Augusta, after early explorers or their relatives.

To the United States Board of Geographic Names, these titles apparently seemed a little flat. When the bridges became a monument, the Board cast around for appropriate Indian names.

Unfortunately, the Paiutes of the vicinity weren't in the habit of naming bridges; they referred to them all, indiscriminately and rather inelegantly, as Ma-Vah-Talk-Tump, or "Under the Horse's Belly."

Undeterred, the Board turned to the Hopi, who were then thought to be descendants of the prehistoric Indians who had inhabited southern Utah. Edwin became Owachomo (meaning "Rock Mound," applicable to the beehivelike formation at one end); Caroline became Kachina, as related above; and Augusta became Sipapu, for the Hopis' "Entrance to the Underworld," from which their ancestors were presumed to have emerged.

### The Rustlers of Robbers Roost

From Natural Bridges a new road enabled us to continue westward another 40 miles through White Canyon to the Colorado River. Long a hangout of outlaws and rustlers and the scene of many an Indian skirmish and range war, the area figured prominently in several of Zane Grey's western novels.

One of the most successful and most unusual of the desperadoes was Butch Cassidy, who holed up with his gang in a gulch known

locally as Robbers Roost.

Born George LeRoy Parker, son of a pious convert to Mormonism, young "Cassidy" Gathering a found respectability intolerable. gang of free spirits, he proceeded in Robin Hood fashion to make life miserable for the law, the bigger cattle companies, the railroads, and the banks, from Canada to Mexico and from Nebraska to California.

When he stole horses for a getaway, or lifted a few chickens for a grubstake, Cassidy usually left twice their value in clinking coin. paid his bills; he gave to the poor; he scrupulously avoided Wyoming, whose governor had paroled him on a promise never to return.

He never shot a man until his final battle. Oddly enough, that occurred in South America, where he tried with the help of one fellow rancher to hold off a whole company of cavalry.

People still bob up who claim that Cassidy never actually died in that fracas in Bolivia, that he has been seen in Mexico, or Idaho, or some other spot. All I can say is that we caught no glimpse of him in White Canyon.

We pressed on to Dandy Crossing and clanged the bell for Art Chaffin to come over from Hite and pick us up with his ferry, the only means of getting a car across the Colorado on its 255-mile course from Moab down to Navajo Bridge, Arizona.

In a few minutes the one-man barge, powered by an ancient model-A Ford engine, groped across the river on its steadying cables.

We drove aboard (page 735).

"Five dollars for the car," said Art, "and

50 cents for each passenger.'

"Mighty cheap," I thought, reflecting on the detour it saved.

### Chaffin Makes His Dream Come True

The Crossing's history was not uninteresting, we found. Old Cass Hite, the hermit of the Colorado, had settled here in the 1870's, started a small ranch, panned for gold, and even established a short-lived post office. He is well remembered for having launched rumors in 1893 which started a gold rush downriver to Navajo Mountain. When no gold materialized, angry prospectors drove Hite into hiding for two years.

Years afterward, Mr. and Mrs. Chaffin moved in, cleared land, planted orchards, and set themselves up as a two-person town. Art dreamed of the day when a road would be built down to the river from Hanksville on the west and from Natural Bridges on the east.

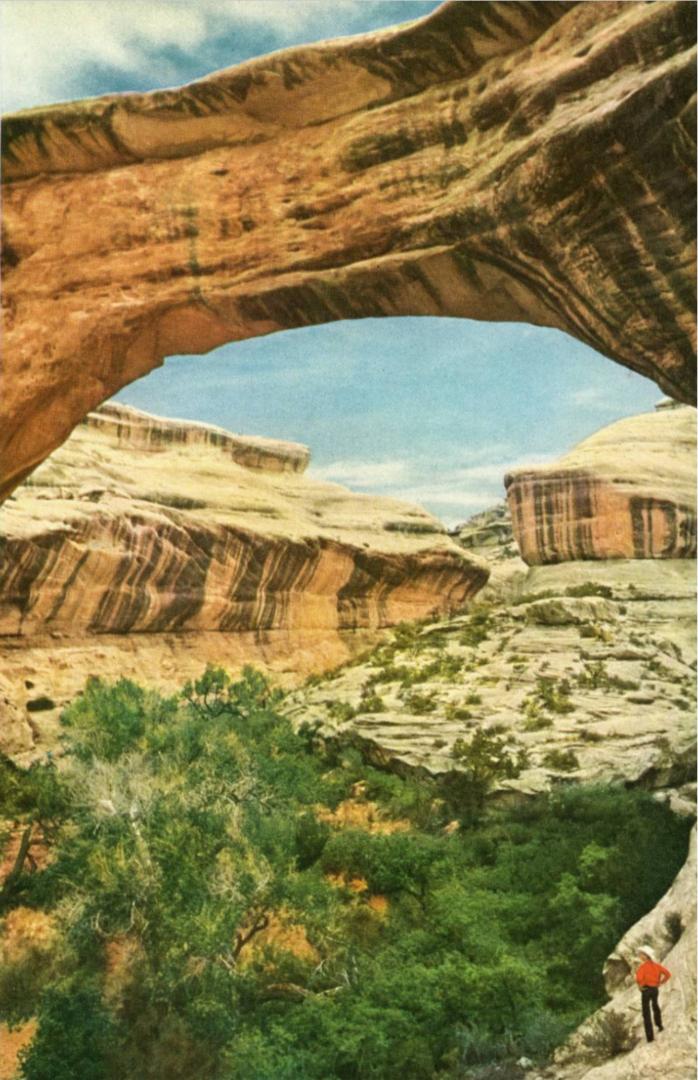
His day came on September 17, 1946. After years of patient waiting and many disappointments, Art's road, completed mostly through his own labors, stood ready. Some 350 persons jounced down in 100 automobiles for the opening ceremonies, which

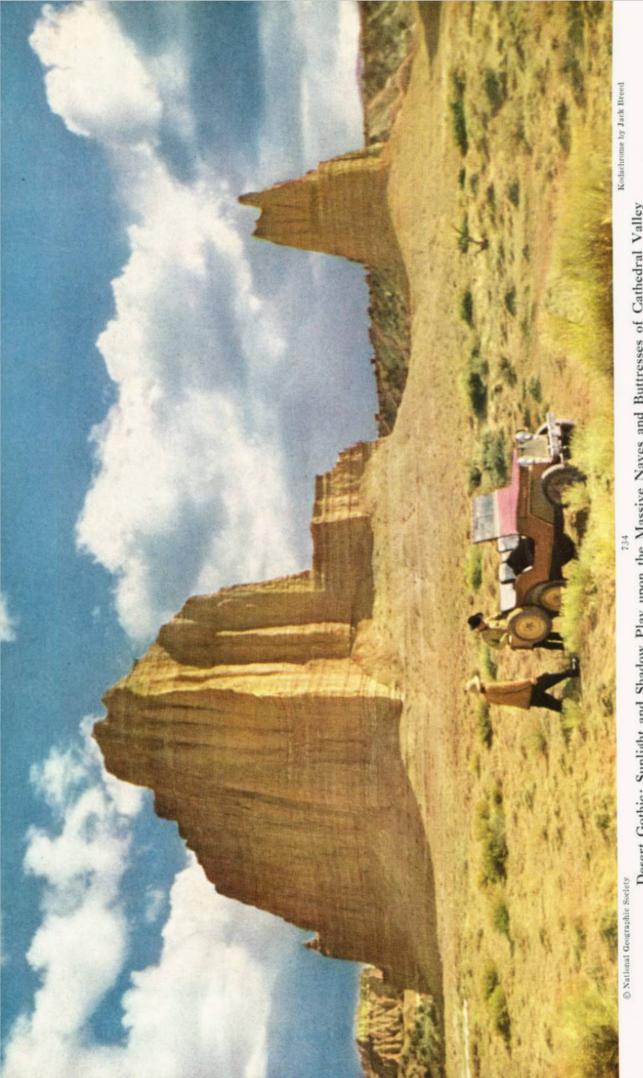
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Kodachrome by Jack Breed

### This Natural Bridge Is About a City Block Long

Sipapu arch, 268 feet from end to end, spans White Canyon in Utah's Natural Bridges National Monu-Paiute Indians living near by had only one name for any kind of bridge: Ma-Vah-Talk-Tump, or "Under the Horse's Belly." White men first called it Augusta, then turned to the Hopi language for the more poetic Sipapu, or "Entrance to the Underworld."



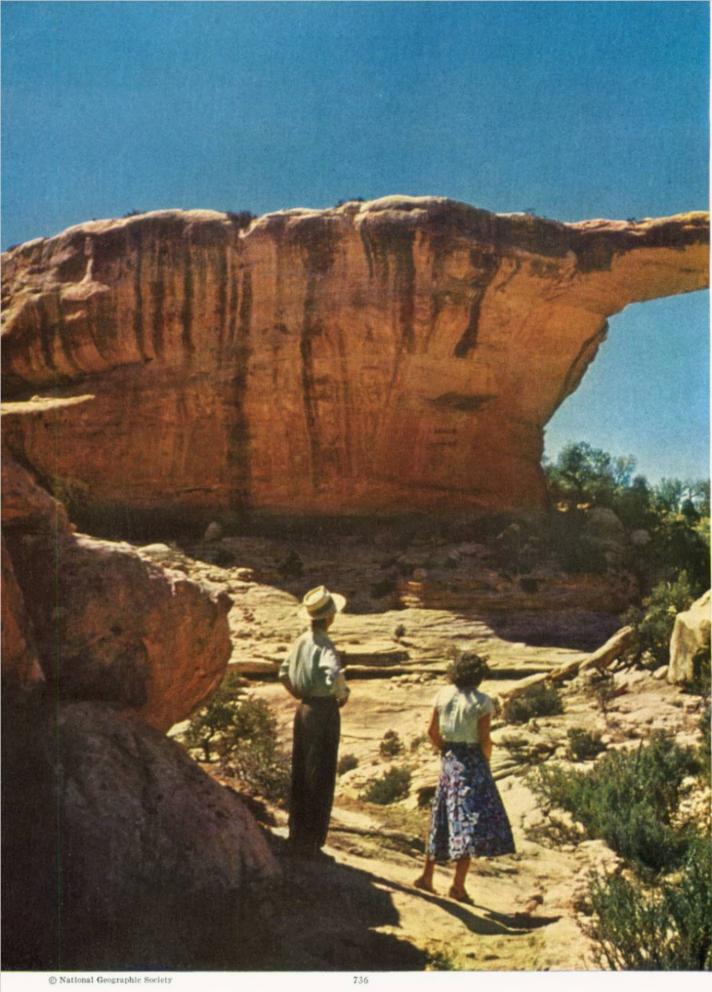


Flash floods nearly stranded the jeep and station wagon in this arid, isolated valley south of Emery, Utah. Shaly surfaces became impassable gumbo. Desert Gothic: Sunlight and Shadow Play upon the Massive Naves and Buttresses of Cathedral Valley

# Powered by an Automobile Engine, This Colorado River Ferry Saved the Party a 150-mile Detour

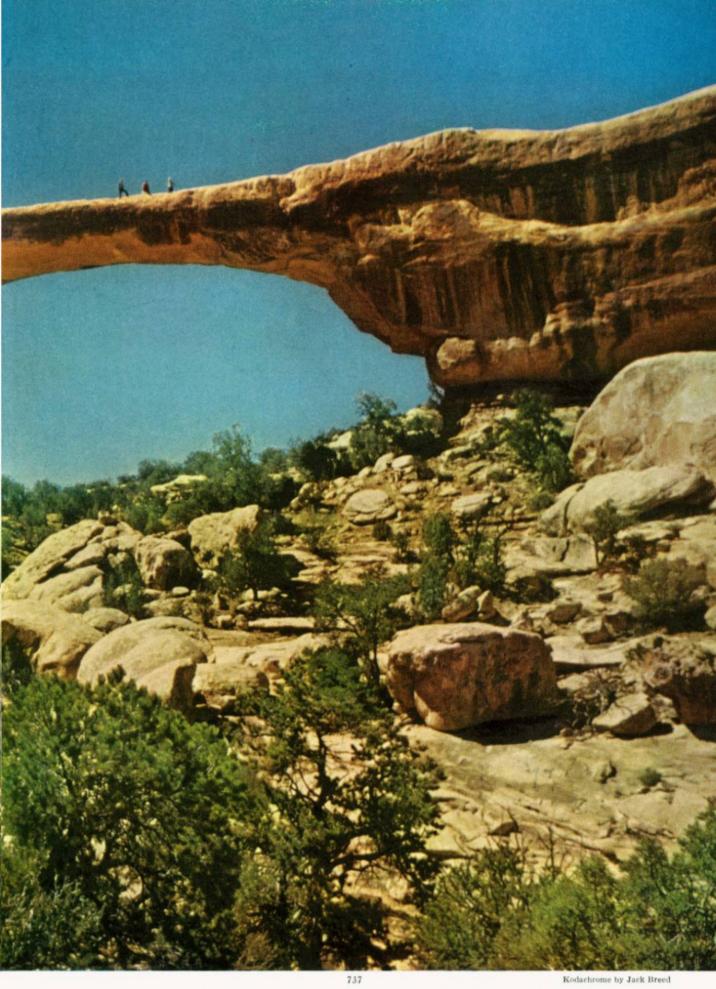
From Moab, Utah. down to the Arizona line, no bridge crosses the turbulent Colorado. Safe enough in good weather, Art Chaffin's ferry at Hite has several times been swept down-river by floods. Chaffin and his wife once were Hite's sole inhabitants. Now scores of oil and uranium prospectors share the town.

Kodachrome by Jack Breed O National Geographic Society



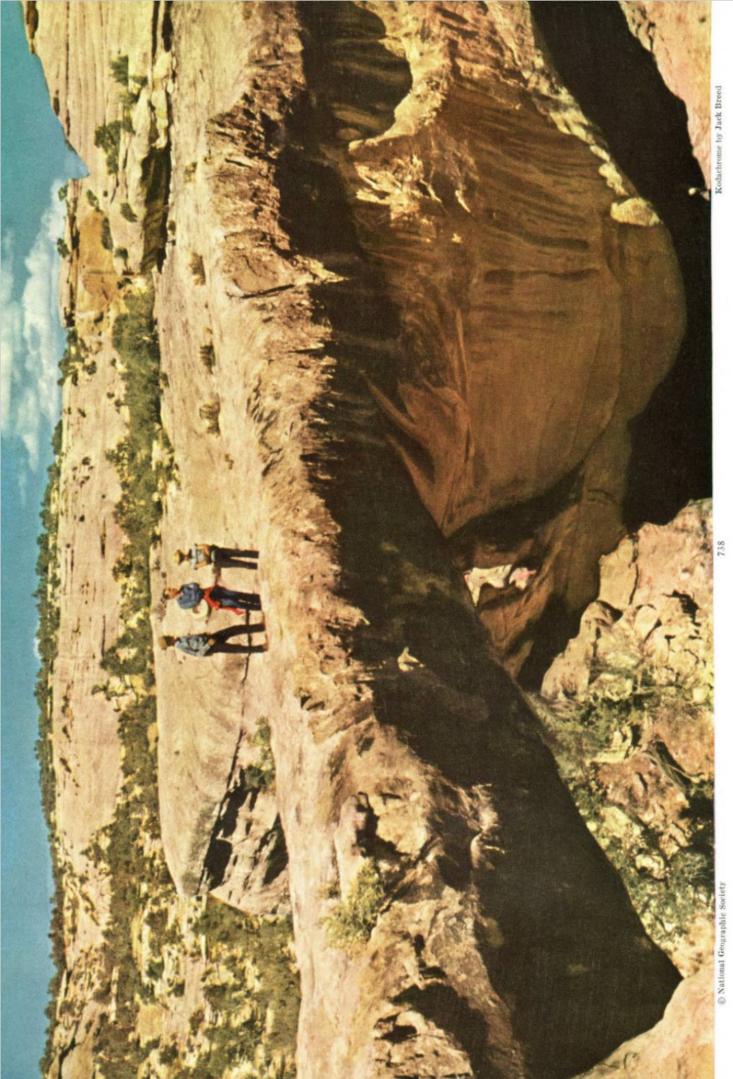
Owachomo Bridge, Tapered to the Contours of an Ax Handle, Supports Three Explorers

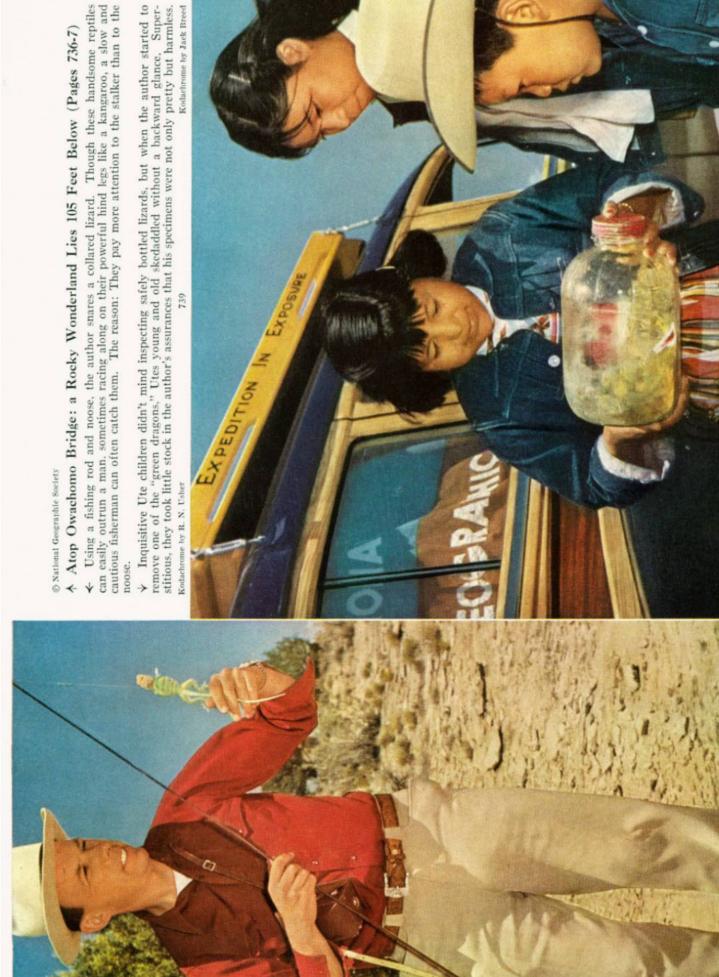
Only nine feet thick, slim Owachomo is the smallest of three major arches in Utah's Natural Bridges National Monument, and may well be the first to collapse (page 738). Its Indian name means "Rock Mound."



Unlike Most Four Corners Marvels, This Bridge Is Accessible by Road

A rough dirt track, easily traversed in dry weather, winds into the monument from Blanding, Utah, 50 miles distant. Owachomo, originally called Edwin Bridge, can be seen from a car; the other two spans require a 9-mile hike.







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### Manpower Comes to the Rescue of Horsepower

With the timeless beauty of Cathedral Valley as a backdrop, Bill Lane, Perry Jackson, and Charlie Kelly struggle with a workaday problem—how to free the jeep from a caved-in arroyo. The luggage carrier had caught on the lip of a sandbank.

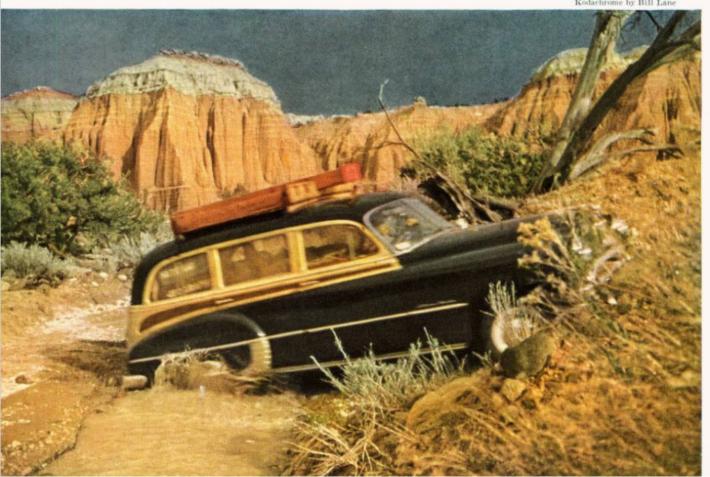
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Kodachrome by Jack Breed

### Fleeing a Storm, the Author's Car Leaps Across a Stream

Specially geared, this station wagon could tackle almost any terrain. In addition to two passengers, it carried a double bed, three-burner gas stove, deep-freeze unit, film compartments, supplies, gear, cameras, gas and oil-a total of more than 2,500 extra pounds.

Kodachrome by Bill Lane



included speeches by Utah's Governor Herbert Maw, Zeke Johnson, and Art himself. Now several thousand dollars have been appropriated to improve Chaffin's trail, and oil and uranium prospectors moving in along it have boosted Hite's transient population to nearly a hundred.

The road up to Hanksville at the time we traversed it was hardly a boulevard. Of its 58 miles, about half is spent crossing and recrossing the bed of North Wash. One disgusted driver reckoned he had crossed it 76 times in 30 miles.

Hanksville itself proved to be a sad spot. Once knee-deep in rich prairie grass, the region around it is now unimaginably barren and desolate. The answer can be compressed into one bleak word—erosion.

The Mormons who settled this section in 1880 were both courageous and determined, but their very efforts to grow and expand as a community were their undoing. Water for irrigation was insufficient and unreliable, and the attempt to wring more from the earth by grazing and dry farming stripped away the topsoil.

In such a situation, perhaps the least useful doctrine for the settlers to have brought with them was polygamy. Yet it was precisely to practice this prohibited system that many of the Mormons came to isolated Hanksville and its environs.

One group holed up at Lees Ferry on the Colorado. When Arizona's Governor George Hunt visited the area, he was told about the polygamy and urged to stamp it out. Said Hunt, after a sour look at the town, "If I had to live in this place I'd want more than one wife myself."

Another group settled near the Capitol Reef buttes. In a certain gulch there, Mormons and their wives hid from the "Federals," and thus it acquired its piquant name, Cohab Canyon—short for "cohabitation," the official charge placed against polygamous Saints.

Such refuges served their purpose well enough. The Government couldn't be bothered to hound lawbreakers so far off the beaten track. Hanksville and its fellow oases developed undisturbed.

When polygamy died there, it fell to a subtler enemy, the economic impossibility of supporting more than one wife on wind-blown acres like these.

### Valley of the Goblins

Mormons of the Four Corners Country have come to take for granted the remarkable scenery that surrounds them. For example, one seldom sees a farmhouse set with an eye to the view, though there are some amazing sites for a picture window. The Mormon ranchers around Hanksville long have known about the fantastic Valley of the Goblins, better known as "Goblin Gulch," only 10 miles to the north; but they have never made any fuss about it.

This amazing little valley, about eight square miles in area, looks like a convention of freaks. Crowded into its galleries and amphitheaters are hundreds of crazily carved sandstone figures, in inspiration somewhere between the bizarre creations of a Dali and the prehistoric statues of Easter Island (pages 706 and 726).

Staring at this extraordinary galaxy, I could only laugh and think to myself, "What a place for a high-school initiation on some moonlit night!"

Public interest in the gulch dates back only to 1949, when Art Chaffin and P. W. Tompkins of San Francisco visited it and took what are thought to be the first pictures ever snapped of its weird formations. Now it is in danger of being loved not wisely but too well by tourists more interested in leaving their mark than in preserving a very fragile whim of nature.

### Where Pioneers Met Their Match

Enthusiastic, but undeniably parched, we left the Gulch and drove west over State Route 24 through badlands as dusty and thirsty as ourselves.

The deserted settlements we passed bore mute evidence of the struggle which Mormon pioneers made to cultivate this forbidding country, only to be forced away by flood and erosion from a land that just did not want to be farmed.

Beyond the cottonwoods of Caineville we crunched up the slopes of Blue Valley and prayed that the rains would leave us alone. This stretch of Mancos formation is one of the worst places in the United States for a vehicle in a storm. In pioneer days, wagons crossing it in wet weather had to stop every 100 feet to have the mud hacked from the wheels.

Passing up the narrow entry to Capitol Reef National Monument, with canyon walls towering 1,000 feet above us, we encountered signs warning us to "Get out fast in case of cloudburst!" A good bit of advice, we thought. But how?

Our luck held good, however. No rains assaulted us, and in 30 minutes we emerged from the gorge in front of the comfortable house of the superintendent, Charlie Kelly. From his windows we could look up at the red cliffs and white domes of the reef itself.

Said Kelly, "There's one last place you've got to visit before you head home. And that's Cathedral Valley."



742

### Roadside Warnings Stop Ben Cornwall near Hite, Utah

These signs are posted on the route from Natural Bridges to Hite. Sand, engulfing wheels, may stall motorists. Flash floods, built by cloudbursts in mountains, can destroy cars. Here the road descends into White Canyon. Bags hanging from the station wagon carry reserve water for the hot, dusty trip.

I thought we had done enough for one trip. But any new place intrigues me, and Charlie, with his steadily puffing corncob pipe, can be persuasive. Soon we were all bundled back into the station wagon and driving northwest for Fremont, Utah.

Here we paused to pick up a guide, Perry Jackson, and his jeep. Turning off the main road, we began to work our way along the base of the Thousand Lake Mountain. For 27 miles we inched the car over boulders, down stream beds, across dunes, and through treacherous stretches of soft sand.

### Cathedrals in Color

Soon on the horizon appeared a panorama of great, bulky monoliths, hundreds of feet high and startlingly colored (pages 708-9 and 734). Isolated from the surrounding cliffs and mountains, each butte stood alone on its dissected gray base, dominating its own "cathedral close."

Setting up camp in an abandoned range rider's shack, we started, despite threatening weather, a photographic attack on this strange landscape. It was not simple. The terrain was anything but accommodating. But the more we saw of Cathedral Valley, the more we agreed with Charlie Kelly that this was the way to end our long journey through the Four Corners Country.

Those who come after us will have it easier.

New roads are being built, and more will follow. But with such advances will come new dangers, too—the risk of tourists' careless "pot hunting" and vandalism, the risk of commercial exploitation of Nature's perishable offerings.

### Scenic Treasures Need Protection

Some geologists and naturalists feel that a sensible precaution would be to make National Monuments of areas like the Valley of the Goblins, the Needles, Monument Canyon, and Cathedral Valley.

This would first require acquisition by the Government of those scenic treasures not already in the public domain. Then a presidential proclamation could put them under the protection of the National Park Service, which now watches over some 23,700,000 acres in the public interest.

Such control would make it possible not only to surround these scenic spots with certain legal safeguards against wanton damage, but also to provide them with ranger service, with access trails, and with every feasible means of lessening further accidentally initiated erosion—such as reckless climbing among the Goblins can set in motion.

That day, we trust, will come. The Four Corners Country represents a geologic heritage which, once squandered, can never be replaced.