Escalante: Utah's River of Arches

A Pack Trip Through Little-known Canyons of the Western United States Reveals Spectacular Formations Carved by Frost, Wind, and Water

By W. Robert Moore

National Geographic Magazine Staff

With Illustrations from Photographs by the Author

BRILLIANT sandstone cliffs wheeled past the window of our banking plane like a color movie film that had suddenly jumped its sprockets. The scene straightened again and our vision settled on a wide arched window in a sheer cliff. Again and again we repeated the performance and each time saw another arch or natural bridge.

Skillfully Harlon W. Bement, Director of the Utah State Aeronautics Commission, maneuvered his small plane over the red landscape so we could look into the deep, twisting canyons of the lower Escalante River in southern Utah. We were only a few miles north of the junction of the Escalante with the sweeping Colorado (map, page 401).*

During our flight over the river and its side canyons—Coyote, Willow, Soda, and Davis Gulches—we saw eight natural arches and bridges hewn by frost, water, and wind in the flaming Navajo sandstone.

Flying alone earlier in the year, Bement had spotted one of the arches. Later he had gone back to explore the area more carefully and had located the others.

"No one in Salt Lake City quite believed me when I told about the arches," he said. "Only Burnett Hendryx and a few persons in Escalante seemed to know anything about them. That's why I wrote to the National Geographic Society."

Plane Flight Inspires Canyon Trek

Now Hendryx, who manages the Cameron Hotel in Panguitch, Utah, Dr. Arthur Crawford, of the Utah Geological and Mineralogical Survey, University of Utah, and I were flying with Bement to photograph these formations from the air. Later we would make a pack trip to examine them at close range.

It is understandable that few persons other than the cattlemen who have pastured herds along the Escalante know anything about the river or its natural arches. The canyons are accessible only on horseback or afoot. The nearest town is Escalante, 45 miles away.

To picture the Escalante River from the air, loosely interlock your fingers and look at the backs of your hands. Like the curving line made by your joined fingers, the stream twists and turns snakelike through the eroded Navajo sandstone (page 402).

The river threads a harsh land, a wilderness of eroded slickrock and patches of sandy desert where little more than scrub brush and prickly pear thrive. It is one of the emptiest places in all Utah. Among the few trees are cottonwoods, alders, and scrub oaks in canyon bottoms.

Desert Trip Begins in Rain

"You can expect perfect weather in September—clear blue skies with perhaps a few Kodachrome clouds," Burnett Hendryx had said when we arranged our pack trip into the Escalante.

Yet on the mid-September morning when we drove east from Panguitch, the wipers on our jeep station wagon strove vainly to brush away the rain.

"It won't last long," Burnett said reassuringly. "It seldom does."

But rain blurred the landscape as we passed the fantastically eroded cliffs of Bryce Canyon National Park. It continued to rain while we ate lunch in Escalante, and skies still dripped as we headed south.

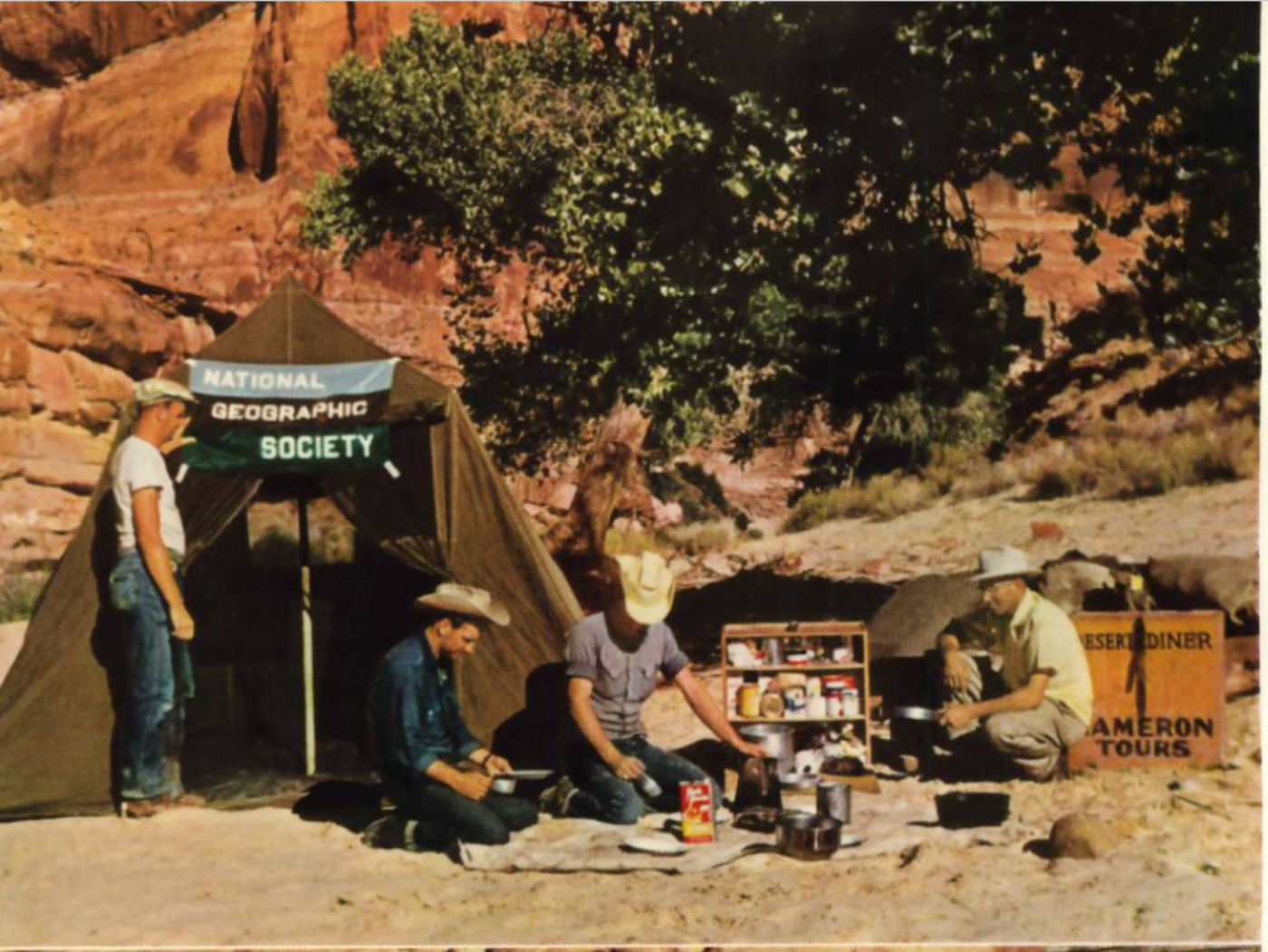
"Too bad we made a mistake and thought this was sunny September," my son Bob commented.

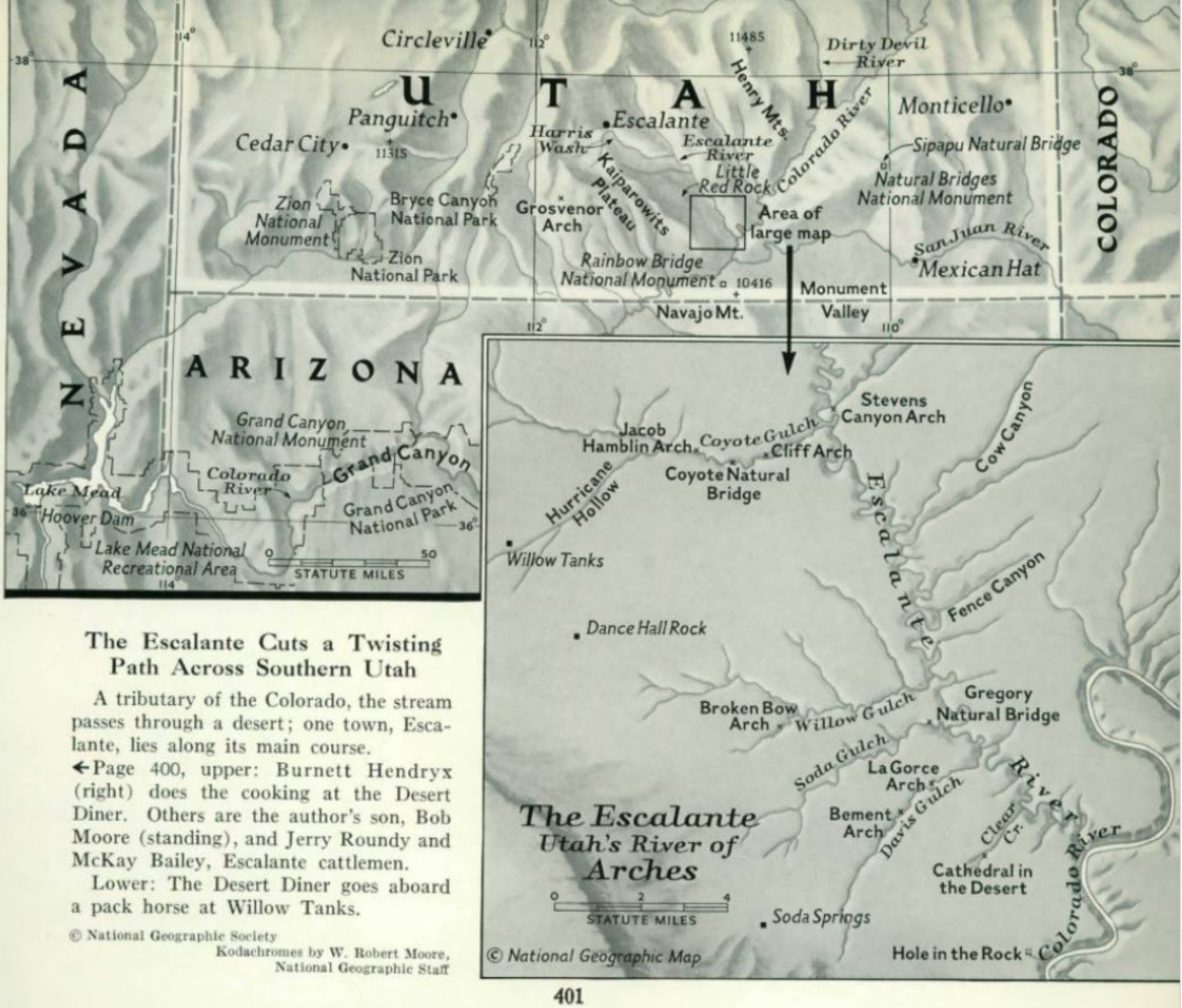
A few miles on, three feet of muddy water surged through Harris Wash, which normally is only a gravelly streak across the desert. We looked discouraged, but Burnett smiled.

"It will clear," he said.

I cocked an eye at the scudding clouds and thought of flash floods and hidden quicksands in the narrow canyons.

* See "First Motor Sortie into Escalante Land," by Jack Breed, National Geographic Magazine, September, 1949.


NATIONAL
GEOGRAPHIC
SOCIETY
DINER
TOURS



The Escalante Cuts a Twisting Path Across Southern Utah

A tributary of the Colorado, the stream passes through a desert; one town, Escalante, lies along its main course.

←Page 400, upper: Burnett Hendryx (right) does the cooking at the Desert Diner. Others are the author's son, Bob Moore (standing), and Jerry Roundy and McKay Bailey, Escalante cattlemen.

Lower: The Desert Diner goes aboard a pack horse at Willow Tanks.

Kodachromes by W. Robert Moore, National Geographic Staff

Half an hour later the rain stopped, the sun peeked through a rift in the clouds, and the stream level started dropping fast. We crossed in a splay of water and mud and rode on to Willow Tanks, 46 miles southeast of Escalante, with a double rainbow arching the sky.

Near Willow Tanks lies Dance Hall Rock, an outcrop of red sandstone eroded into an amphitheater. Here, in the winter of 1879, a band of about 250 Mormon pioneers halted briefly on their dramatic desert trek across southeastern Utah to the San Juan Valley.*

Here they danced. But at the rim of the Colorado, 15 miles southeast, the pioneers spent wearisome weeks in the snow blasting a slit in the cliff, still known as Hole in the Rock, through which to let down their wagons and horses. Seeing the hole now, one wonders how the trekkers made the precipitous descent to the Colorado, for the rock chute appears more like a goat path than a wagon passage.

Willow Tanks, like Dance Hall Rock, is a red splotch in the desert. Here an outcrop forms nearly a full circle of walls around a narrow depression. Cattleman Rex Whittaker of Circleville, who holds range rights here, has fenced the hollow into a corral. A spring, piped into tanks, affords a supply of water. Here, too, is a rude cabin, built against the cliff side.

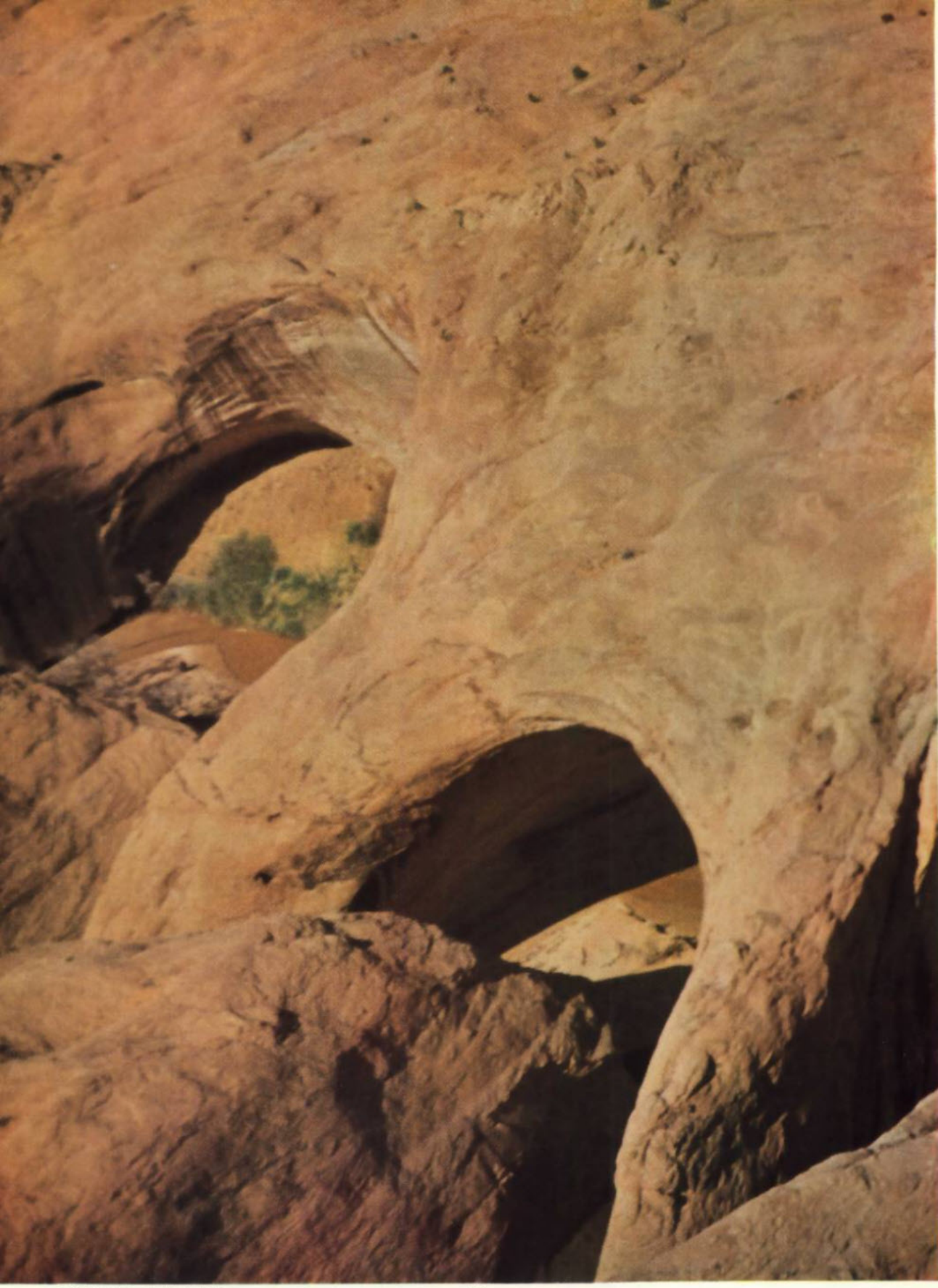
"All the comforts of home," Bob commented, as he surveyed the rusty kitchen range and a sagging iron cot in the cabin.

"If She's A-smoking . . ."

Burnett had arranged for our two wranglers, McKay Bailey and Jerry Roundy of Escalante, to meet us at Willow Tanks with saddle horses and pack animals. We were still unloading the jeep when they arrived. With them came Brownie, an energetic, tail-wagging cattle dog, who immediately adopted me as a friend.

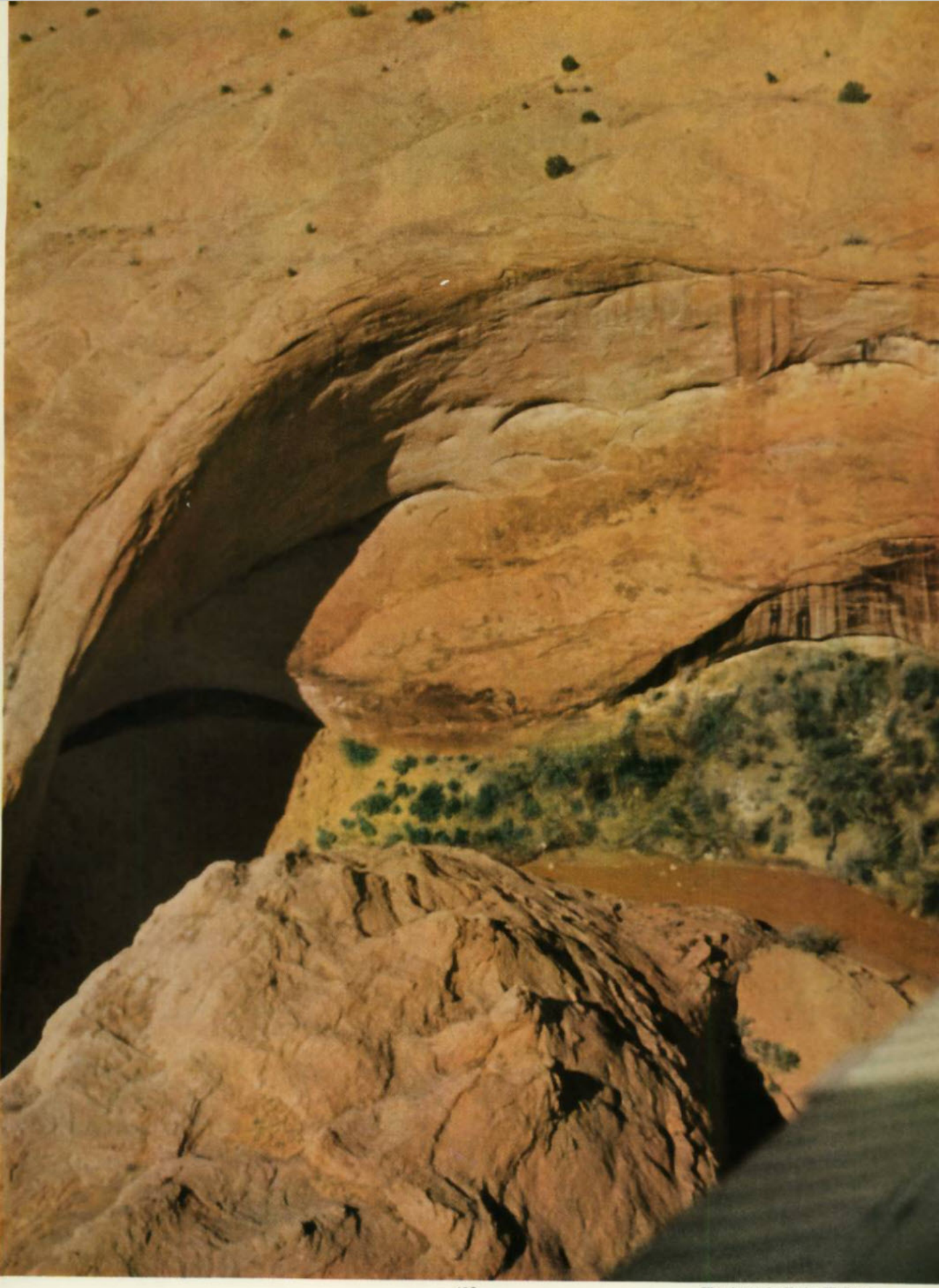
"What a ride!" Jerry complained, tenderly

* See "Desert River Through Navajo Land," by Alfred M. Bailey, and "Utah's Arches of Stone," by Jack Breed, NATIONAL GEOGRAPHIC MAGAZINE, August, 1947.



Canyon Spurs Stretch Across Coyote Gulch Like the Paws of a Mighty Sphinx

Endless looping of this tributary of the Escalante left these interlocking tines of rock. So sharp are the kinks that the river can travel half a mile yet be only 50 yards from where it started.



403

Ektachrome by Harlon W. Bement

Slickrock—Bare and Eroded Sandstone—Offers Slim Hospitality to Struggling Vegetation

Scraggly cottonwood, scrub oak, tamarisk, and scanty patches of grass grow in the deep, rocky trenches. Jacob Hamblin Arch, concealed in this air view, pierces the long arm of rock at center (page 410).

stomping to unlimber his lame legs when he swung off his horse. I agreed. They had come more than 40 miles in one day, much of the trip in the rain.

"It's just that this is the first time I've been on a horse since I went into the Navy," he explained. "It's a little rough shifting from the deck of an aircraft carrier to the deck of a horse."

"You haven't lived until you've eaten my cooking," Burnett said as he worked over the kettles on the smoking stove. "And after you have..." The clank of pots drowned out the rest of his statement.

Despite his slogan—"If she's a-smoking, she's a-cooking; if she's black she's done"—Burnett turned out excellent meals (page 400). Our only worry was overeating.

All that night at Willow, thunder crashed over the near-by Kaiparowits Plateau, and lightning flared. More rain came down. But next morning the sun rose bright.

We loaded our gear on the pack horses. My photographic equipment went into the pack bags of Cook, a reliable old mule. Burnett was proud of the cases he had designed to carry all the food on one horse. The Desert Diner, he had labeled his handiwork. Later we dubbed it the Dandy Sandy Diner.

Canyon Alcoves Magnify Sounds

Striking east across the desert, we rode into Hurricane Hollow, a depression which deepens into a twisting sheer-walled canyon leading into Coyote Gulch.

I tried to identify some of the scraggy desert growth along the way.

"Is this horse brush?" I asked McKay, indicating a dark-green bush.

"No, that's not even good rabbit brush," was his answer. Among cowboys, I learned, vegetation is classed as horse brush or rabbit brush, depending upon whether or not the stock will eat it.

As we rode, Brownie romped far and wide, chasing chipmunks and lizards and sending jack rabbits bounding. Our path dropped deeper and deeper into the red sandstone. At the junction of Hurricane with Coyote Gulch the canyon walls towered more than 200 feet above our heads. Coyote's winding trench, too, became progressively deeper. At many of its sharp bends the stream has hewn broad alcoves, their roofs reaching far out over the canyon. Some are remarkable sounding boards; our voices seemed magnified, and stones clattering under the horses' hoofs sounded like small avalanches.

A short distance downstream we rounded a sharp bend and abruptly faced the first of the canyon arches. It looked to us as if a giant had thrust a fist through the rock wall to provide a peephole through which he might view the canyon beyond.

Actually the arch is formed by a long tongue of rock about which the stream has made a sharp loop. Erosion has undercut both sides of this tongue, forming deeply set alcoves. In the thinnest part of this rock wall a hole has broken through.

Arch Named for Mormon Scout

The window of the arch is dwarfed by the massive bulk of rock overhead. Yet it is no small hole. Burnett and my son Bob scrambled up the high pile of talus that lies at its base and measured its width. It is nearly 170 feet across. Its height, measured by range finder and by plotting elevation angles, is more than 90 feet.

Though the arch is officially unnamed, the few persons who have seen it have called it Jacob Hamblin Arch, after an early Mormon scout. Hamblin himself probably never saw it, but it is appropriate that some such landmark should bear his name (pages 403 and 410).

Often spoken of as the "Mormon Leatherstocking," Hamblin was a pioneer route finder through southeastern Utah who spent years as a missionary to the Indians. In 1871 he led a party for Maj. John Wesley Powell's second survey expedition down the Colorado. On this trip Hamblin is credited by some with having traversed part of the Escalante River chasm. Whether in this canyon or another, quicksand and fallen rocks stopped him from following the stream all the way to its outlet.

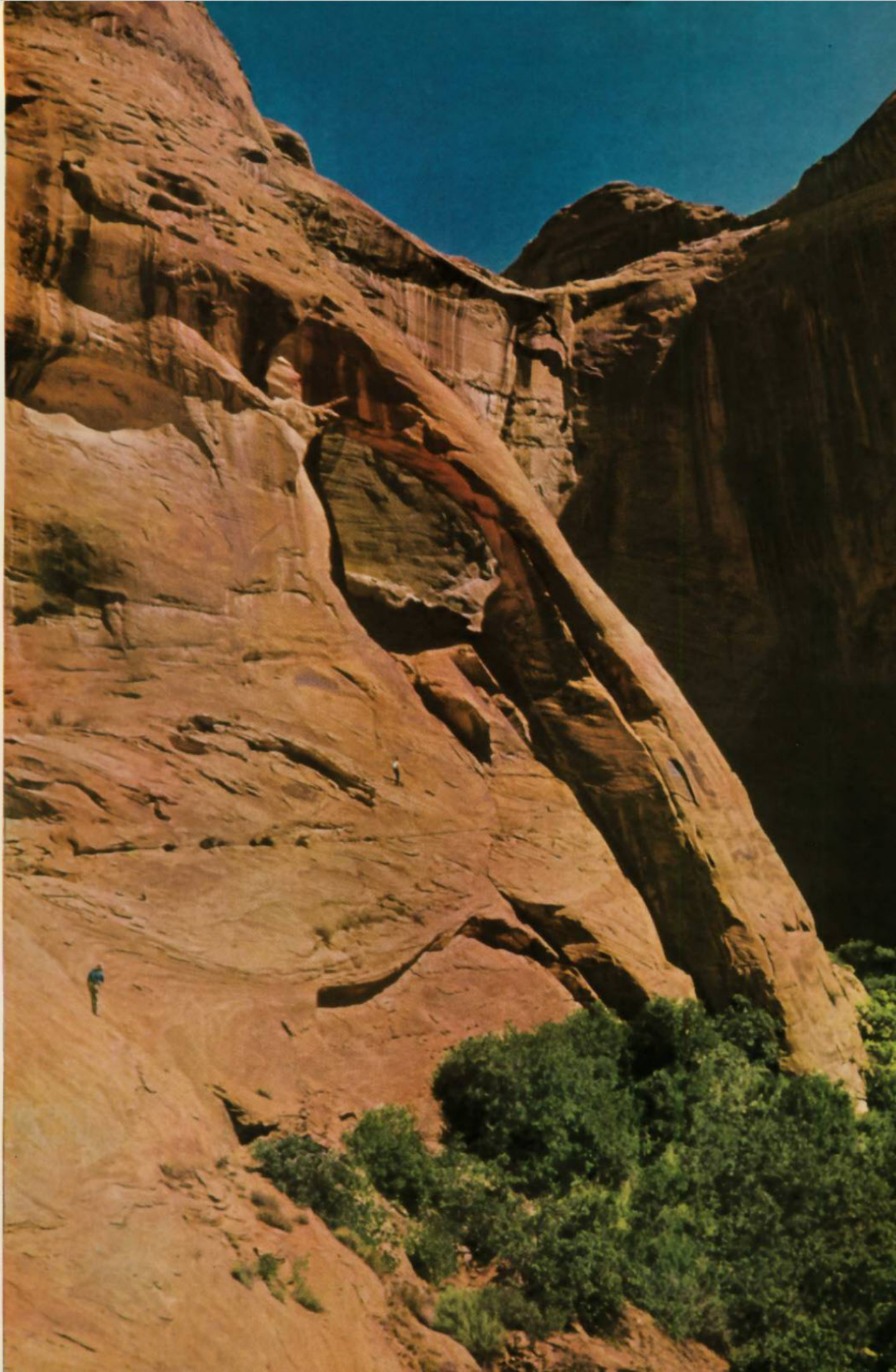
At one of the kinks in the Coyote, a short distance downstream from Jacob Hamblin Arch, we saw what remained of the pedestal

Page 405

Cliff Arch Hangs Like a Jug Handle → Against the Wall of Coyote Gulch

Smallest of the eight Escalante arches that have been measured, this opening is approximately 40 feet wide by 45 feet high. The arch ring varies from 15 to 35 feet in thickness. Here two members of the party explore the steep cliff face for a way to reach the opening; lacking a rope, they had to give up only 30 feet below their goal.

Kodachrome by W. Robert Moore, National Geographic Staff



and the broken arm of a once mighty arch that had collapsed. As time is measured in geological formations, it had fallen only recently, for the broken edges were little eroded. Numerous large rocks that once formed its span lay strewn over the talus slopes and on the canyon floor.

Farther along we came to the second archway, a natural bridge spanning the stream. A spur of sandstone shaped like an Indian club lies athwart the river bed. Under this the Coyote has dug a passage 68 feet wide and 38 feet high, a tiny opening compared with the thickness of the rock itself.

Though small as Escalante arches go, this bridge is interesting in its own way. Nature appears to have been undecided just how to fashion it. Around the opening is an arching band of rock more resistant to erosion than the upper parts of the wall, giving it the appearance of a huge culvert thrust through the spur.

We camped for the night on a sandy flat just around the bend from Coyote Natural Bridge. Spoiled by city life for camping under the open sky, I lay awake in my sleeping bag listening to the clank of the bell on our lead mule and the snorting of the hobbled horses grazing among the bushes. The sounds seemed louder than the many noises of a city. A full moon shone like a searchlight in my eyes.

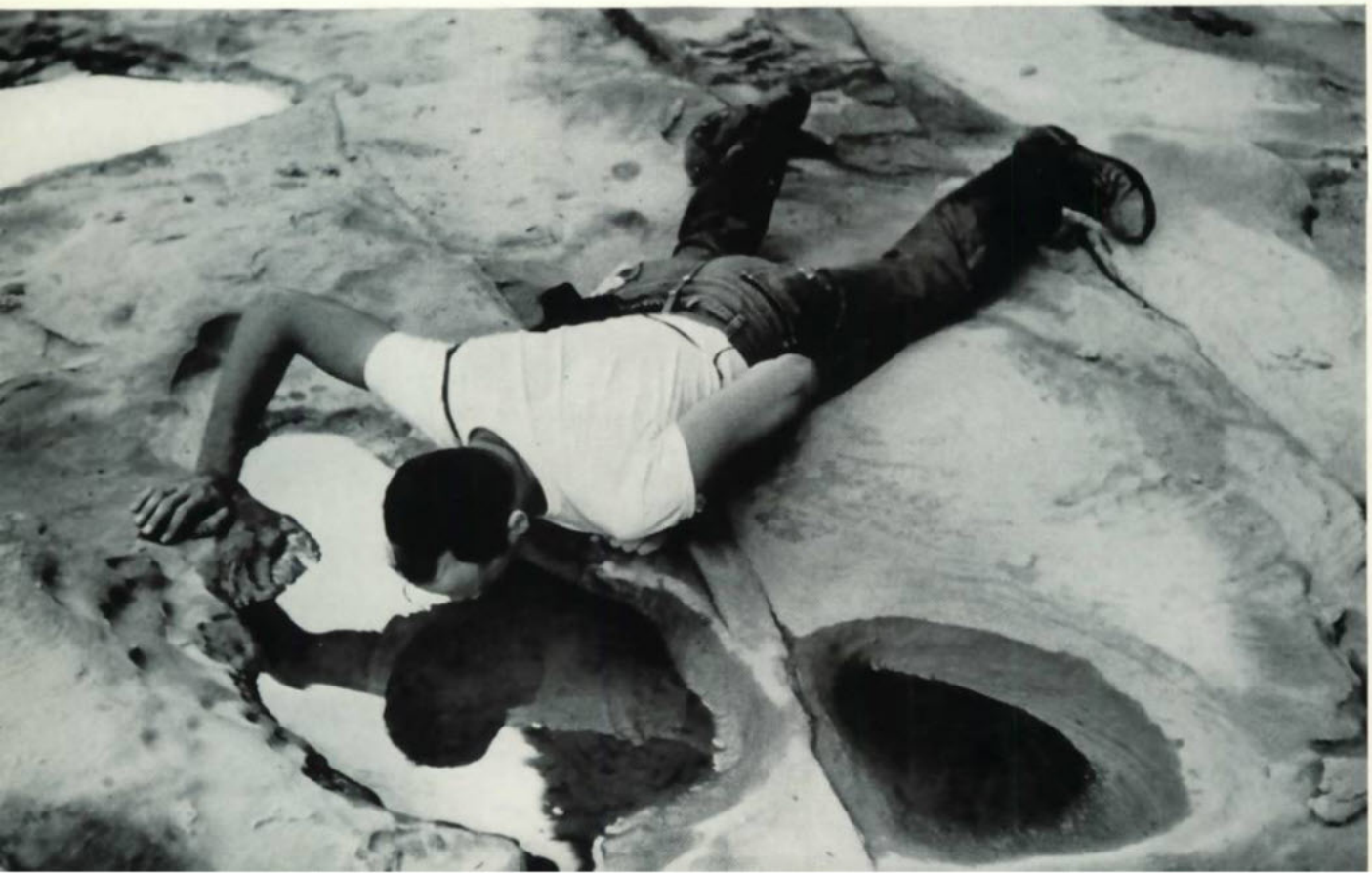
Next morning, just below Coyote Natural

406

↑ **A Long-forgotten Indian Painted These Bold Symbols in Davis Gulch**

The artist used the wall of a deeply cut alcove as his canvas, thus preserving his pictographs from destruction by wind and water. On similar high ledges Indians built stone and adobe granaries.

↓ The Escalante River always runs mud-red; not even the horses would drink from it. The party sought side streams, springs, and rain-water pools like these for its water supply. Sandstone surfaces throughout the area are humped and pitted from uneven erosion.



Bridge, we had our first experience with quicksand. Jerry was riding ahead, leading the pack horse carrying the Desert Diner. He crossed the stream with little difficulty, but the pack horse suddenly sank nearly to his belly in the watery sand. The beast lunged furiously, stumbled, fell, and rolled over. There was a clatter of dishes and cans.

Jerry grabbed the lead rope as the frightened horse scrambled to his feet and tried to bolt with one of the cases of food dangling by his hoofs. Thereafter we drank cocoa laced with flour and ate pan biscuits flecked with coffee.

Stiff Climb to Reach Escalante

Coyote's third arch hangs like a jug handle high on a cliff wall (page 405). On either side the cliff drops away so sharply that only an expert rock climber could reach the opening without the aid of a rope.

Bob quickly found out its hazards. Edging along the sloping wall, he was forced to stop 30 feet below his objective, though he actually reached a spot directly underneath the ceiling of the arch.

The arch ring itself varies from 15 to 35 feet in thickness and encloses an opening about 40 feet wide by 45 feet high. We named it Cliff Arch because of the unusual manner in which the bandlike buttress clings against the canyon wall.

Near the outlet of Coyote Gulch into the main canyon of the Escalante, quicksands barred our way. Leading our horses, we had to climb a steep sand slope to reach a high rock shelf.

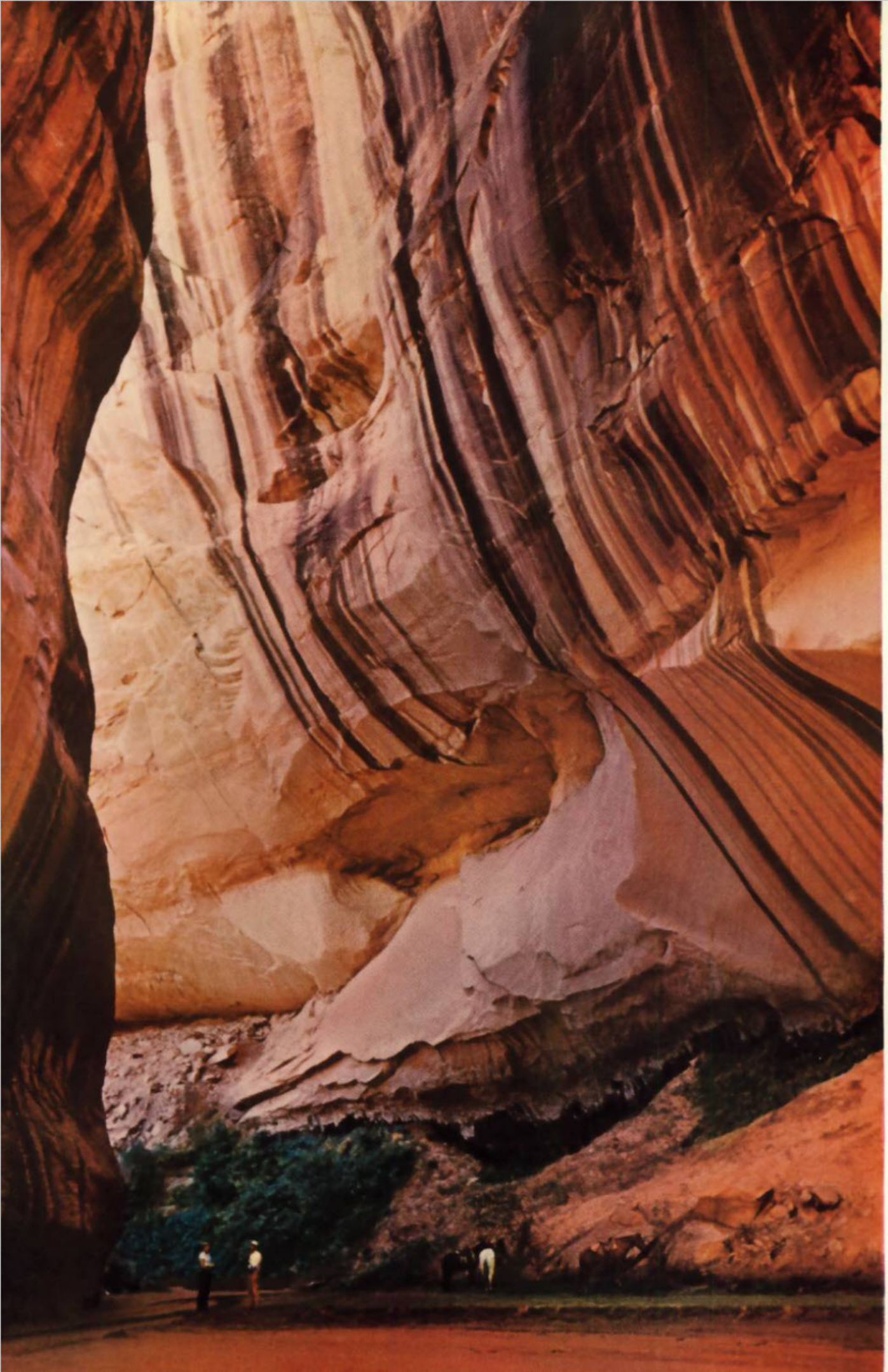
And what a climb! The sand was soft and slid beneath every footstep. It was almost like treading in a bin of flour. To add to my difficulties, my horse often hung back or suddenly lunged against me.

To Brownie, the dog, it was play. He raced up and down the slope as if to lend encouragement. I needed it. By the time I reached the shelf my feet seemed ponderously heavy and I gasped for breath. But the spectacular view from a jutting cliff made me forget fatigue.

Below us lay the narrow gash of the Coyote's confluence with a sweeping curve of broader Escalante Canyon, through which flowed the silt-red river. Beyond, a little more than half a mile away, reared a high transverse cliff wall through which the majestic opening of Stevens Canyon Arch breaks like a gigantic picture window (pages 422 and 424).

Through the ages the elements have chipped and flaked that red sandstone wall; it has become a thin slab standing some 800 feet above a sharp bend in the Escalante. On the opposite side from which we saw it the walls sheer away to the mouth of Stevens Canyon.

Burnett had seen the arch before and said it might be possible to get a horse up into the opening. When we explored Escalante Canyon to find a place to mount the wall, he abandoned the idea. He and Bob, however, managed to pick a circuitous way up



the fractures and talus slopes and measure the width of the arch.

Brownie went along, enjoying the adventure. He bounded easily up the cliffs; later I photographed him, a tiny dot in the vast opening of the arch, while Burnett and Bob gingerly climbed the rocks on hands and knees. Brownie was first down to the canyon again, tail-wagging his triumph.

Returning, Bob admitted he had never been more frightened in his life than when he stood on a sharp incline of rock in the opening with his back against the knife-edge vertical wall.

Stevens Arch Is Escalante's Largest

The bold skyline opening at Stevens Canyon is the largest of the Escalante arches. As accurately as Burnett and Bob could measure, it stretches 225 feet across by nearly 160 feet high. The arch ring of red sandstone above it is about 125 feet thick, making the total arch height some 285 feet above the floor of the aperture. In both size and position it rivals any of the known Western arches except peerless Rainbow (map, page 401). Sipapu Bridge, though having a wider span, is not so high.

We stopped for the night on a tamarisk-covered sand flat a short way downstream. Though we encountered few insects on most of the trip, this Escalante camp buzzed with mosquitoes and gnats. I covered my face against them and the moonlight.

"It isn't the mosquitoes, but that big street lamp that bothers me," Bob said.

The next morning we started early in order to reach Soda Gulch; it would be our longest day's ride.

Threading along the main river, we forded the stream so many times that I soon lost count of the crossings. Because of the rains three days before, the river ran well above its usual autumn level.

"A few years ago we had a flood here," McKay said. "A 12-foot wall of water came rolling down the canyon!"

The Escalante River always runs mud-red. Now it was muddier than usual. Not even the horses would drink from it. We sought side streams, rain-water pools, and springs for our water supply (page 406).

It is a spectacular route, this kinking path down the Escalante. In places we had to travel a quarter-mile or more to get around bends where the river has turned back on itself and left intervening walls no more than a few score yards in thickness. Ages hence, these walls may crumble and break through to form new arches.

Elsewhere we passed sheer cliffs as vertical, it seemed, as if hewn to a plumb line. In many places the black lustrous gloss of desert varnish streaked and patterned the cliff faces (opposite). Above us rose pillars, towers, and huge monoliths that the river has left isolated by cutting off sharp bends and shifting its course.

Herds Pasture in Wilderness Canyons

Before reaching Fence Canyon, Bob spied a small arch in the cliffs of a side ravine. From a distance its window appeared to be only 20 or 30 feet across. Access to it was cluttered by brush and a chaos of boulders, so we left it for later visitors.

Despite the difficulty of getting into the Escalante, cattlemen for years have driven small herds into the canyon to pasture on its grass- and bush-covered sand flats and side ravines.

Earlier in the season McKay had brought in 50 head of cattle. We found part of the herd in Fence Canyon. The grazing there was thin, so McKay and Jerry went to round them up and drive them farther downstream.

Mindful of his duty, Brownie went along. All was well at first, but suddenly one of the half-wild beasts, a cow with a calf, turned on Brownie and charged. Trapped in a tangle of bushes, he could not escape. She caught him with one of her horns, and McKay had to end the dog's life with a pistol shot. To me, some of the lightheartedness of the trek vanished with the echoes that reverberated in the canyon depths.

Downstream, past the mouth of Willow

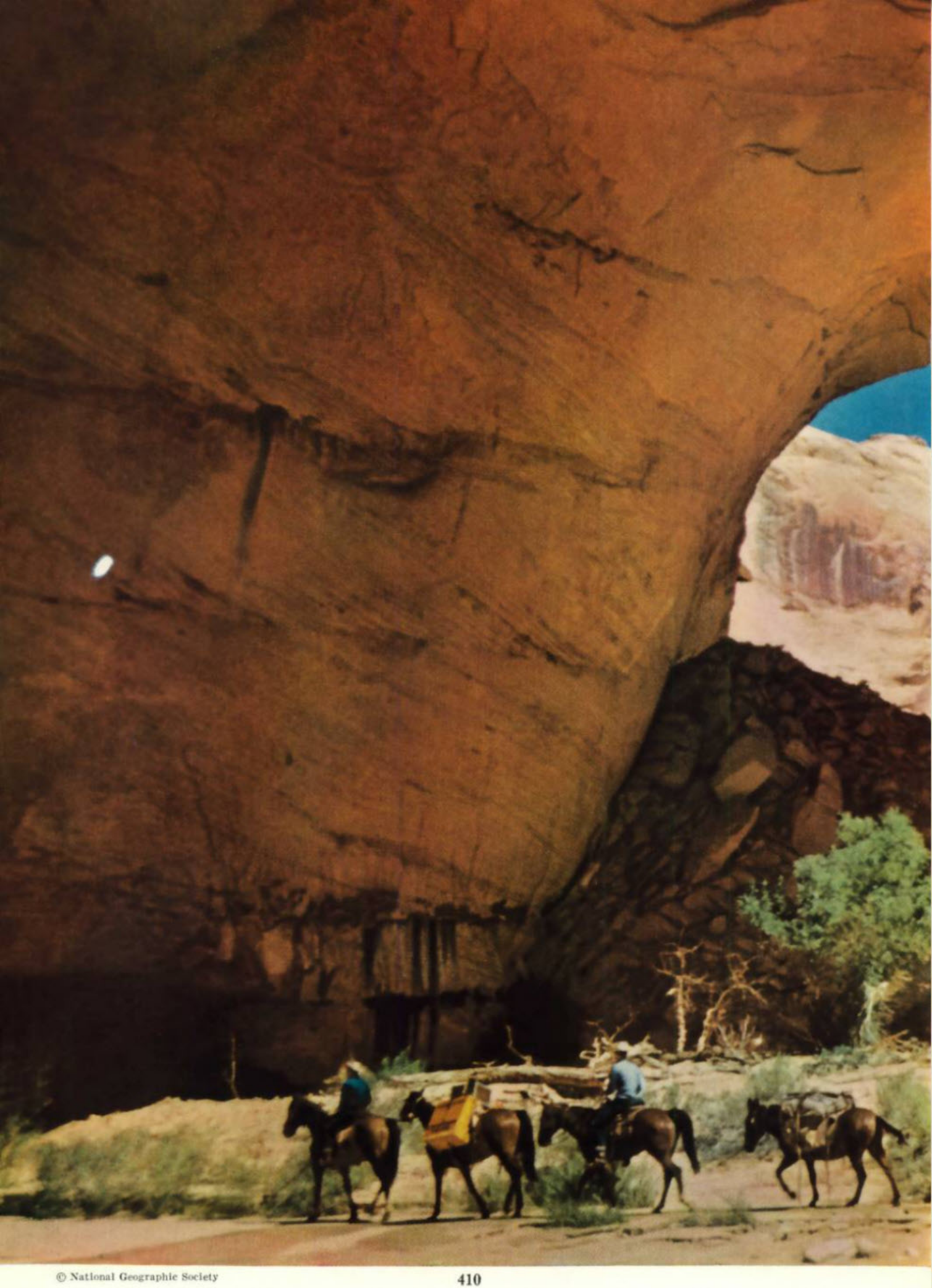
Page 408

← Vaulted Walls Above Clear Creek Form "Cathedral in the Desert"

Rock sides of this box canyon converge overhead, almost shutting off the sky to create a cavernlike room. Off the picture at right, Clear Creek canyon ends in a horseshoe curve. There the creek cascades in a tiny stream down the wall face, with a murmur like a vesper hymn.

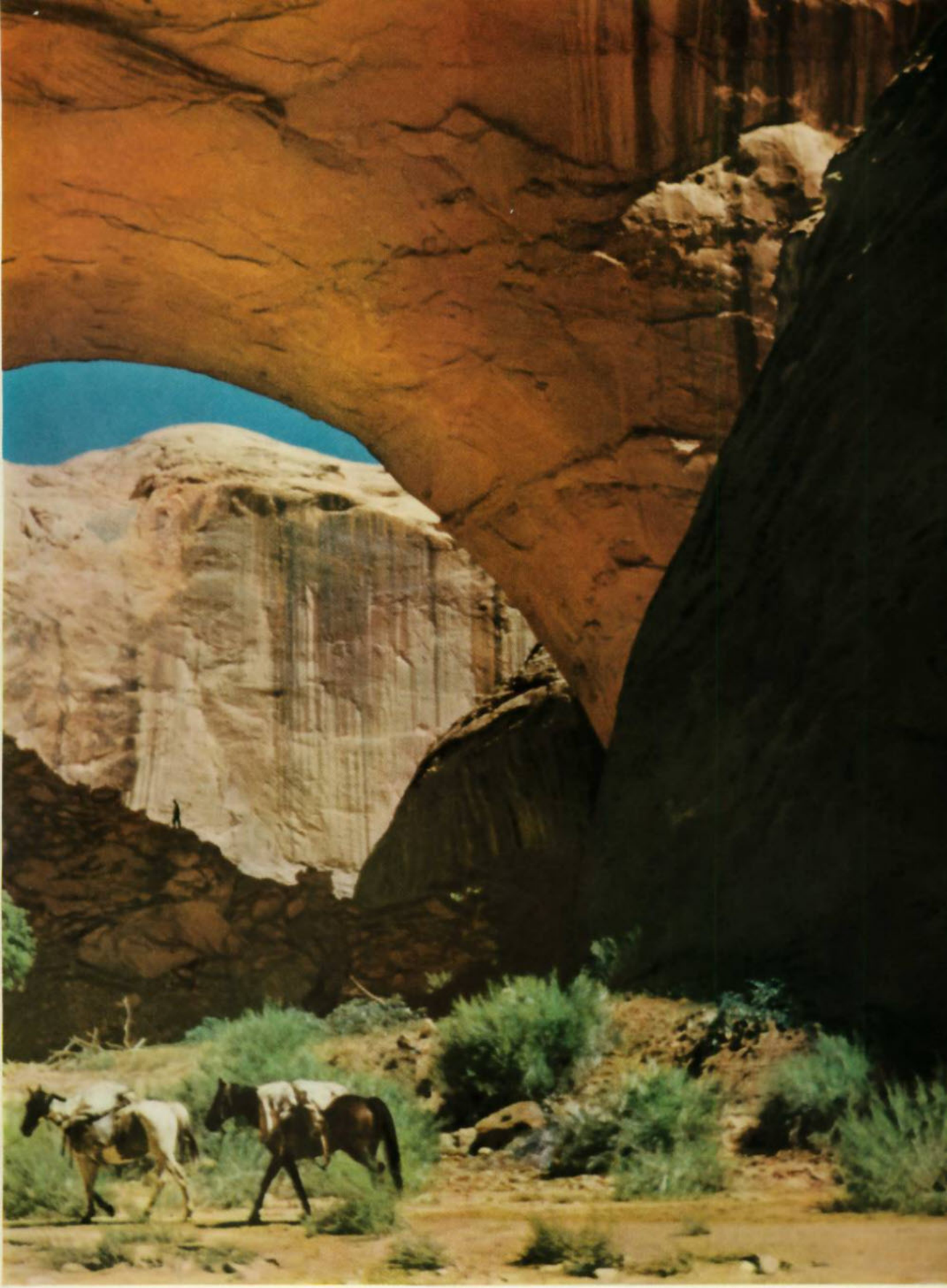
Desert varnish, a lustrous patina of iron and manganese oxides, streaks and stains the walls. The floor is carpeted with moss and large patches of quicksand; the author sank to his calves while making this photograph.

Kodachrome by W. Robert Moore, National Geographic Staff



Like a Picture Window, Jacob Hamblin Arch Frames a Bend in Coyote Gulch

Pack horses follow the sharply twisting stream, which hollowed this deep alcove. Sometimes rain turns the slender creek into a romping, abrasive torrent. The window measures some 170 feet across by 90 feet high.



411

Kodachrome by Burnett A. Hendryx

Dwarfed to Ant Size, a Man Labors Up a Steep Mound of Rubble

Jacob Hamblin, after whom the arch was named, served as scout and Mormon missionary in southeastern Utah. In 1871 he led a party for Maj. John Wesley Powell's second survey expedition down the Colorado.

Gulch, Soda Gulch appears as a narrow slit in the west wall of Escalante gorge. Only a few hundred yards upstream in its tortuous canyon stands Gregory Natural Bridge; its massive arm of sandstone, dwarfed by surrounding cliffs, spans the slender stream (page 417).

We measured the height of the bridge itself and found it to be 180 feet above stream level. The aperture is some 75 feet high and has a span of 177 feet.

Bridge Named for Noted Scholar

Though cattleman Allen Cameron, Burnett's father-in-law, had camped under the arch in 1918, its discovery was not announced until 1940, when Norman D. Nevills, of Mexican Hat, named it and placed a register at one end of the arch. I was the fiftieth person to sign it; some signatures had been repeated several times.

The bridge bears the name of the late Dr. Herbert E. Gregory, former Yale professor, Government geologist, and for 17 years director of the Bernice Bishop Museum in Honolulu. Dr. Gregory wrote on such far-ranging subjects as the Navajo country, North American geology, and the geography of Europe. He was also author of a comprehensive article on Australia in the NATIONAL GEOGRAPHIC MAGAZINE.*

Shortly before reaching a camp site where Soda Gulch and the Escalante join, our pack mule, Cook, fell afoul of quicksand. Riding behind him, I saw his hind legs suddenly sink. His pack bags, carrying my gear, dropped half out of sight in the water. My cameras were in watertight cases; not so my clothes. When Cook finally scrambled to solid footing, the bags dripped like a fountain.

In camp I hung one soggy bag and part of its contents on a stump a few feet from the campfire. Bob fed the fire better than he had planned. A few moments later I turned around to find bag, towels, and stump a bright pillar of flame.

Clear Creek, beyond Davis Gulch, deserves its name, for the water flowing in its trench is champagne-clear. The canyon path, however, is cluttered by growths of tamarisk, rough scrub oak, and cottonwood.

Though shortest of the Escalante's main tributaries, Clear Creek canyon is one of its most dramatic. As we rounded a bend, the walls seemed suddenly to fold together high above our heads. We found ourselves in a cavernous cul-de-sac, the canyon's end.

The grotto is open to the sky only through a narrow slit that ages ago was the stream's

* See "Lonely Australia: The Unique Continent," December, 1916.

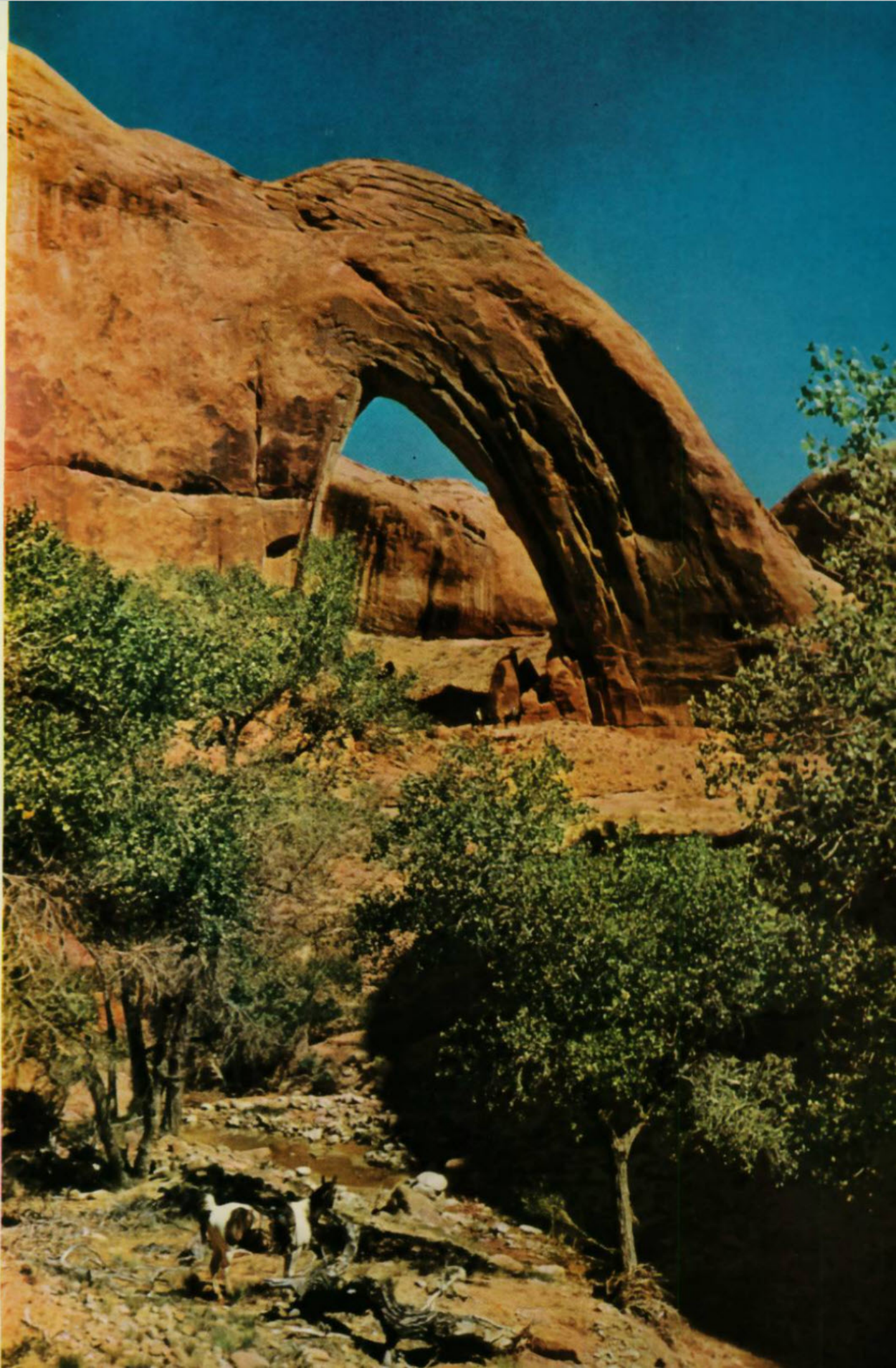
Broken Bow Projects → Like a Flying Buttress in Willow Gulch

Page 413: The formation takes its name from an Indian weapon found near by, not from its shape. The stream that gouged the deep canyon seems puny now as it meanders far below the 94-by-100 foot opening (page 416).

← The Author Picks a Rough Bed for Measuring Broken Bow

Mr. Moore sights through a range finder, one of the instruments he carried for determining distances. Where direct measurement was impossible, the party also used level and transit to calculate the dimensions of formations. Distances estimated by eye were usually far in error.

Kodachrome by W. Robert Moore, National Geographic Staff, and (left) Robert B. Moore



groove. The water that enters it now cascades down an almost vertical slit in the rock to a pool on the cavern floor. Part of the outflow into the creek apparently stems from a spring at the bottom of the pool.

Mrs. Howd Veater, whose brother-in-law formerly held range rights in the canyons, suggested a name for this chasm—"Cathedral in the Desert." It is as large as a good-sized cathedral, and streaks of stain give its walls the appearance of being draped with long slender pennons (page 408).

Before we got back to our camp near Davis Gulch a brisk wind had risen, blowing a sand blast along the canyon. Grit stung our faces and put an edge on our teeth. By dark, however, the wind dropped, and we ate dinner with only a minimum dusting of sand.

Paint Streaks Mark "Highway"

To speed up the meal, McKay and Bob volunteered to bake biscuits over the coals while Burnett prepared the rest of the dinner. A few moments later our biscuitmakers chorused, "If they're a-smoking, they're a-cooking; if they're black they're done." They were charcoal black on the bottom!

Within both Davis Gulch and Willow Gulch, whose outlets we had passed, lie other arches. But to reach them we had to climb out of Escalante Canyon, cross the desert, and descend again into the gulches.

There are relatively few exits from the Escalante. One is near Davis, but it is not easy. First we had to follow a zigzag path up a sand slope, a trail so steep that the pack horses refused time and again to start up it. Above this, the path mounts a narrow, sharply tilted ledge of slickrock in which cowboys have blasted and chipped a few crude footholds (page 420).

Even when we had negotiated that precipitous incline, there were sand slopes and slickrock so steep that we had to climb afoot, leading our horses.

Over part of the desert, too, the trail was no boulevard. But it is a highway, or at least Burnett called it that. As proof he pointed to a bright aluminum house trailer parked at the base of a rocky hillock.

The trailer was brought here as shelter for a U. S. Geological Survey employee while he made an extended study of the water heights and sediment carried in the Escalante.

"To get that trailer here, the Government built the cheapest highway in history," Burnett said, with a twinkle in his eye. "Seven miles with a gallon of paint!"

We followed part of the "highway." On the slickrock short streaks of white paint marked the path over which men had managed to drive jeeps and drag the trailer.

"The trail into Davis is easy to find," McKay's father had told us. "Just keep a lookout for a pile of rocks."

We found rocks everywhere. We rode across acres of rocky land and got lost among ledges and cliffs. Finally we found a tiny mound of small stones. They marked no apparent path, but McKay knew where to go and led us to the verge of Davis Gulch.

"This spot is tricky," he said, dismounting. "We had a horse do a two-and-a-half gainer off the cliff here, and once a pack mule landed in the cottonwood trees below. So take it easy."

We half walked, half slid into the canyon. By the foot of the cliff, poles enclose a small corral. Near here, a few years ago, a wild bull turned back an exploring party. Later he was killed; his hide still hangs on the corral fence.

Davis Gulch also holds a mystery. In 1934 Everett Ruess, a young poet-artist, vanished into the Escalante canyons. Early in the next year his two half-starved pack burros were found at this corral. These animals, and a few enigmatic inscriptions, "Nemo 1934," on the cliff walls, are all that have ever been found.

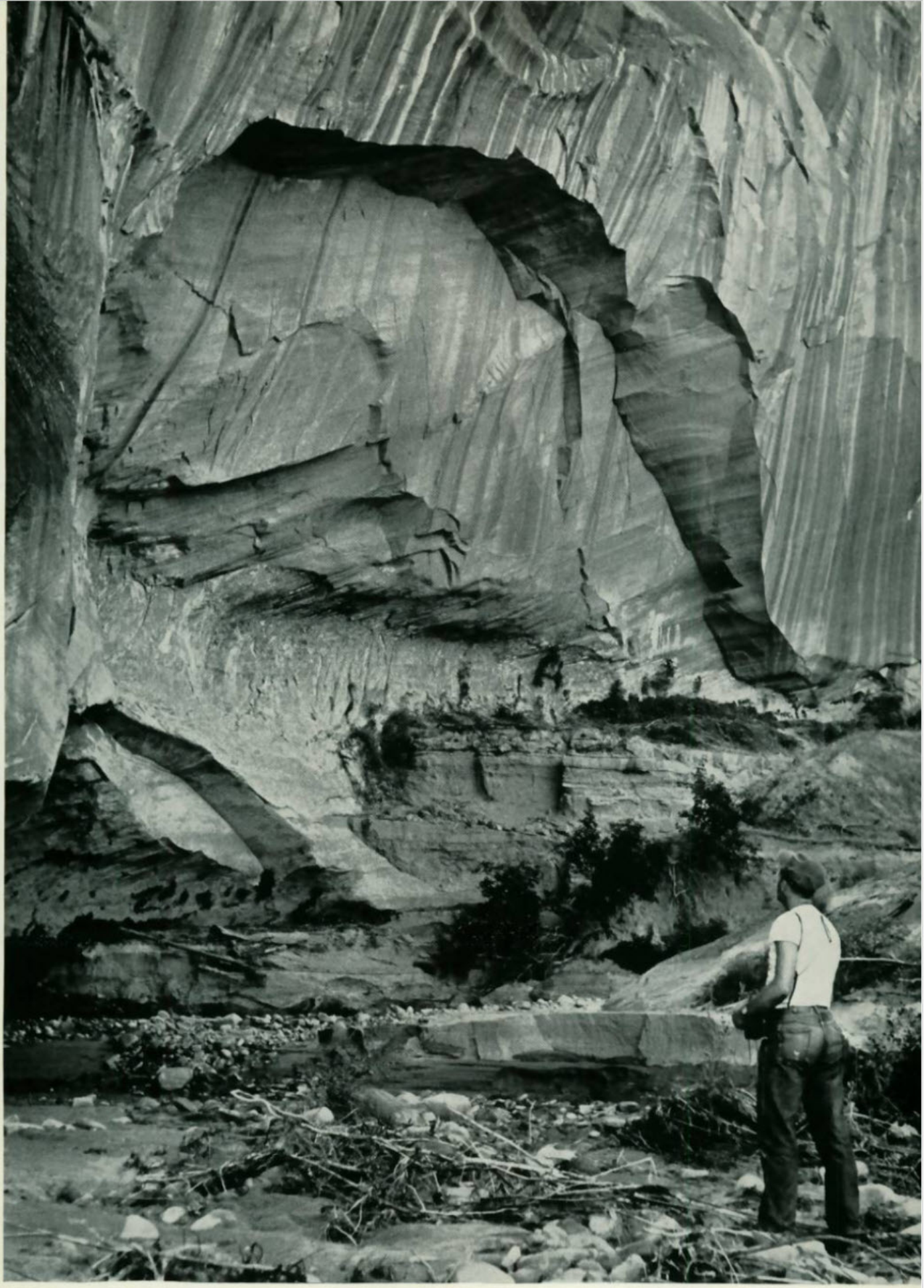
Canyons Once Occupied by Indians

Mounting a sand slope deep in the canyon, we came upon an alcove whose walls once served as canvas for a primitive Indian artist. After centuries, the long row of pictographs he painted in white on the red sandstone remains almost completely intact (page 406).

In similar alcoves we found remnants of rude houses. Indians once stored food in these structures of stone and mud.

Strewn about one cluster of houses lay stone mortars, or metates, used by the ancient Indians to grind corn. We also found a mano, or oval stone, with which they did the grinding.

Studying aerial photographs, we decided we had entered Davis Gulch between its two arches. Neither McKay nor Jerry had seen them, nor had Burnett, except from the air. We started downstream, but found so many beaver dams and other obstacles barring the



415

Chiseling with Water, Frost, and Wind, Nature Starts Sculpturing a New Arch

This Soda Gulch wall reveals how some arches form. Scouring streams undercut the walls and leave them thin; water seepage helps dislodge rock slabs until a hole breaks through.

path that we could ride no farther. After camping and eating lunch, Burnett, Bob, and I went on afoot while McKay and Jerry napped in the shadow of a cliff.

Here, in lower Davis, the river has been a bold sculptor. It has twisted in a sharp loop, leaving an intervening rock wall several hundred yards long. Both sides are deeply undercut by wide alcoves, and a window has broken through the center. The window itself is more than 100 feet wide and more than 75 feet high, yet it is small compared with the width and height of the colossal beam of rock above it.

Earlier, when Harlon Bement had flown us over the Escalante region, he also had circled Butler Valley, southeast of Bryce Canyon National Park, to show us Grosvenor Arch. It had been named in 1948 by Jack Breed and his companions for Dr. Gilbert Grosvenor, then President of the National Geographic Society and Editor of its Magazine, and now, since his retirement, Chairman of The Society's Board of Trustees.

"One of the Escalante arches should bear the name of The Society's new President, because of his many years in geographic work and his personal interest in this trip," Burnett had suggested.

So to us this hitherto unnamed arch in lower Davis canyon became La Gorce Arch for Dr. John Oliver La Gorce, now Editor of the NATIONAL GEOGRAPHIC MAGAZINE (pages 418, 419).

Arch Shaped Like an Elephant's Trunk

Near a bend below La Gorce Arch we gained one of the most memorable views of the entire trip. On our left, as we looked back, towered an almost vertical wall, its streaked sides soaring hundreds of feet above us. On our right rose the curved ceiling of a gigantic alcove hewn into the wall of the narrow canyon. Where we stood, the chasm was in shadow, but beyond the arch opening the afternoon sunshine struck the rock, making it glow like living flame. The reflected light flooded the alcove and canyon walls, suffusing them with a golden red.

Next morning we rode past beaver dams and through the brush to Davis's upper arch, an elephantine trunk of rock extending from the left cliff face. We found the opening to be 100 feet across by 80 feet high, with the trunklike arch ring between 100 and 200 feet thick. Atop this sandstone trunk rears a large rock knob, like the decorative boss worn by an Indian elephant on parade.

"Why not Bement Arch?" I suggested.

Certainly no person has been more enthusiastic in bringing the arches to outside attention. And few persons have keener interest than he in the scenic attractions of his State. Harlon Bement has flown up and down over Utah time and time again, exploring its little-known canyons, searching its desert areas, and photographing its weird rock formations. So Bement Arch it became.

Willow Gulch, with its Broken Bow Arch, lies north of Davis and Soda Gulches. Accessible from the desert road out of Escalante, it will probably attract more visitors than any of the other formations.

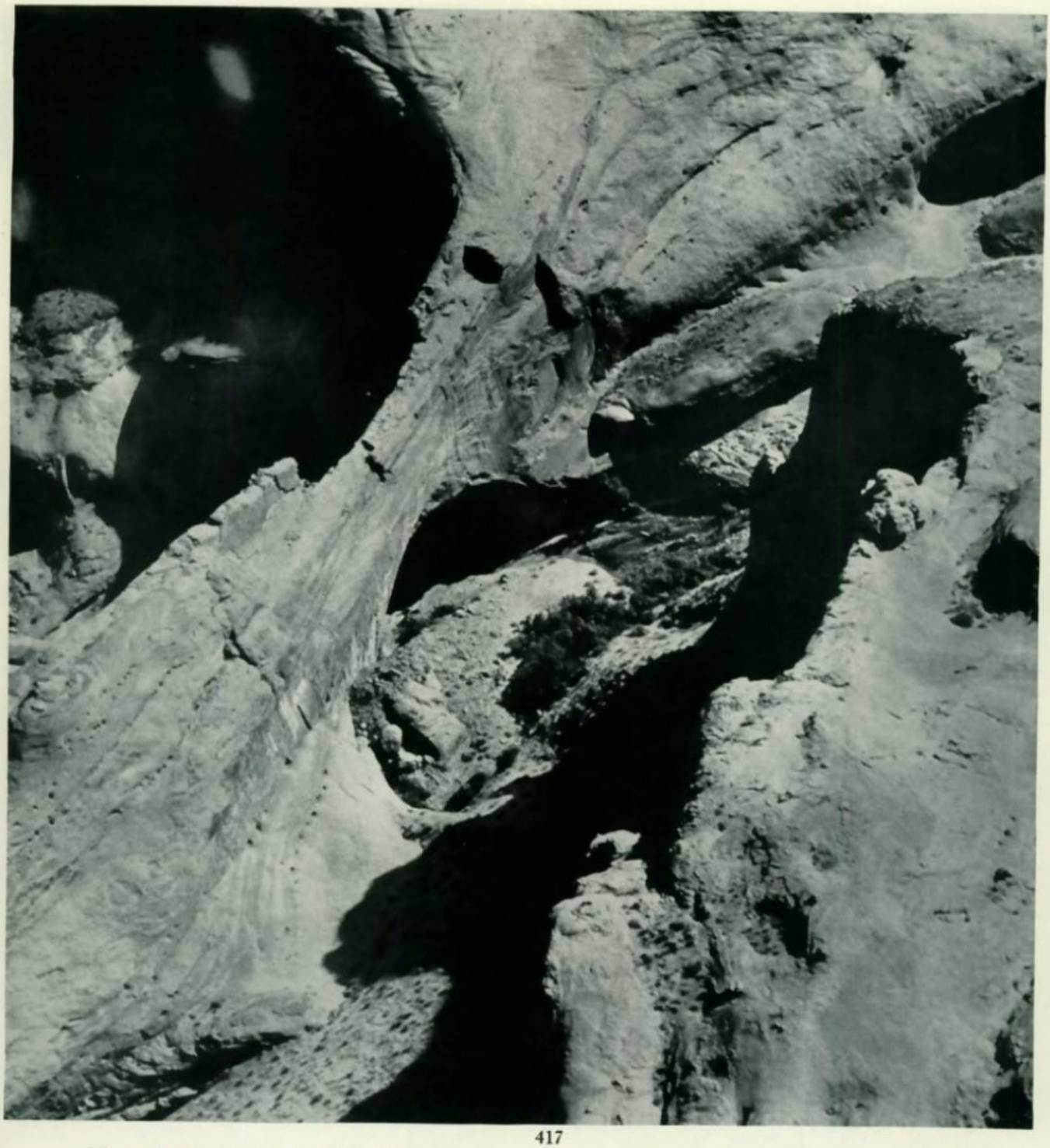
We found the ride into Willow less difficult than had been our other canyon treks. Gail Bailey, McKay's father, rode with us to see if he could take his cattle from the Escalante through this route.

416

Broken Bow Arch occupies a striking position in a broadened section of the canyon. Some distance before reaching it we topped a sandy hillock and could see the formation looming boldly above the stream bed (p. 413).

Like Bement Arch, Broken Bow projects conspicuously from the left wall of the canyon. The arch gains its name from a broken Indian bow found near its base; oddly enough, its shape reminds one of a bow bent nearly double.

Scrambling across the boulders strewing the floor of the arch, Burnett and McKay stretched the steel tape across the opening. Its width was 94 feet. The range finder recorded its height as almost exactly 100 feet.



417

Near the Outlet of Its Winding Canyon, Soda Gulch Stream Hewed This Natural Bridge

A few cattlemen had known the bridge for years, but not until 1940 was it named for Dr. Herbert E. Gregory, noted geologist. The rock span, overshadowed by surrounding cliffs, rears 180 feet. Its opening astride the stream measures 177 feet across by about 75 feet high (page 412).

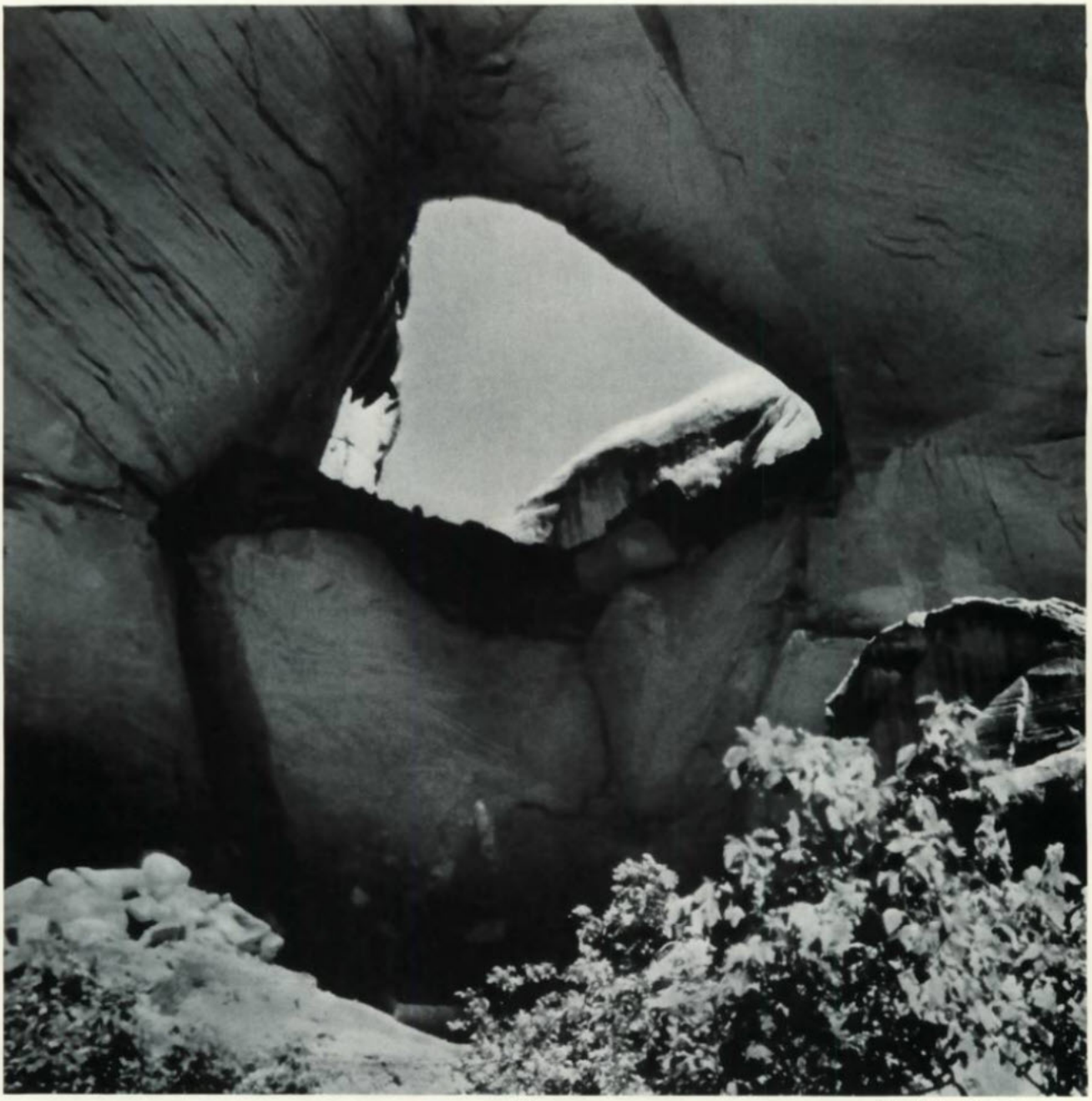
The arch ring above is roughly 70 feet in thickness, thus making the total arch height approximately 170 feet.

Downstream from Broken Bow the gorge narrows in places to only a few feet. In one of these narrows lay a huge boulder, blocking the passage so cattle could not get through. McKay had brought along some dynamite to blast it out of the way. He and Jerry set the charge—20 sticks.

"There's enough there to blow out the walls of the canyon," McKay's father insisted.

We retreated around two bends of the canyon to await the blast. The explosion came like a sharp blow, and a shower of stones on the canyon walls echoed like the popping of machine-gun fire. The boulder was a barrier no longer.

We explored the narrow stream bed for some distance, seeking possible quicksand beds



418

Burnett A. Hendryx

↑La Gorce Arch, Named for The Society's President, Highlights a Bend in Davis Gulch

This window, 100 feet wide by some 75 feet high, punctures a tremendous arm of rock deeply undercut into large alcoves on both sides. Dr. John Oliver La Gorce, Editor of the National Geographic Magazine, took a keen personal interest in the survey of these little-known formations. Grosvenor Arch, named in 1948 for Dr. Gilbert Grosvenor, then President of The Society, stands only 50 miles to the west; its double span towers 152 feet (page 416).

→ Page 419: Late afternoon sunlight sets aflame the canyon walls framing La Gorce Arch. From this downstream side an intervening mound of talus, fallen from the overhanging rock ceiling, conceals the lower part of the window. The rock beam above is so massive that it dwarfs the size of the opening.

Kodachrome by Robert B. Moore

that might trap the cattle, but found no serious hazards.

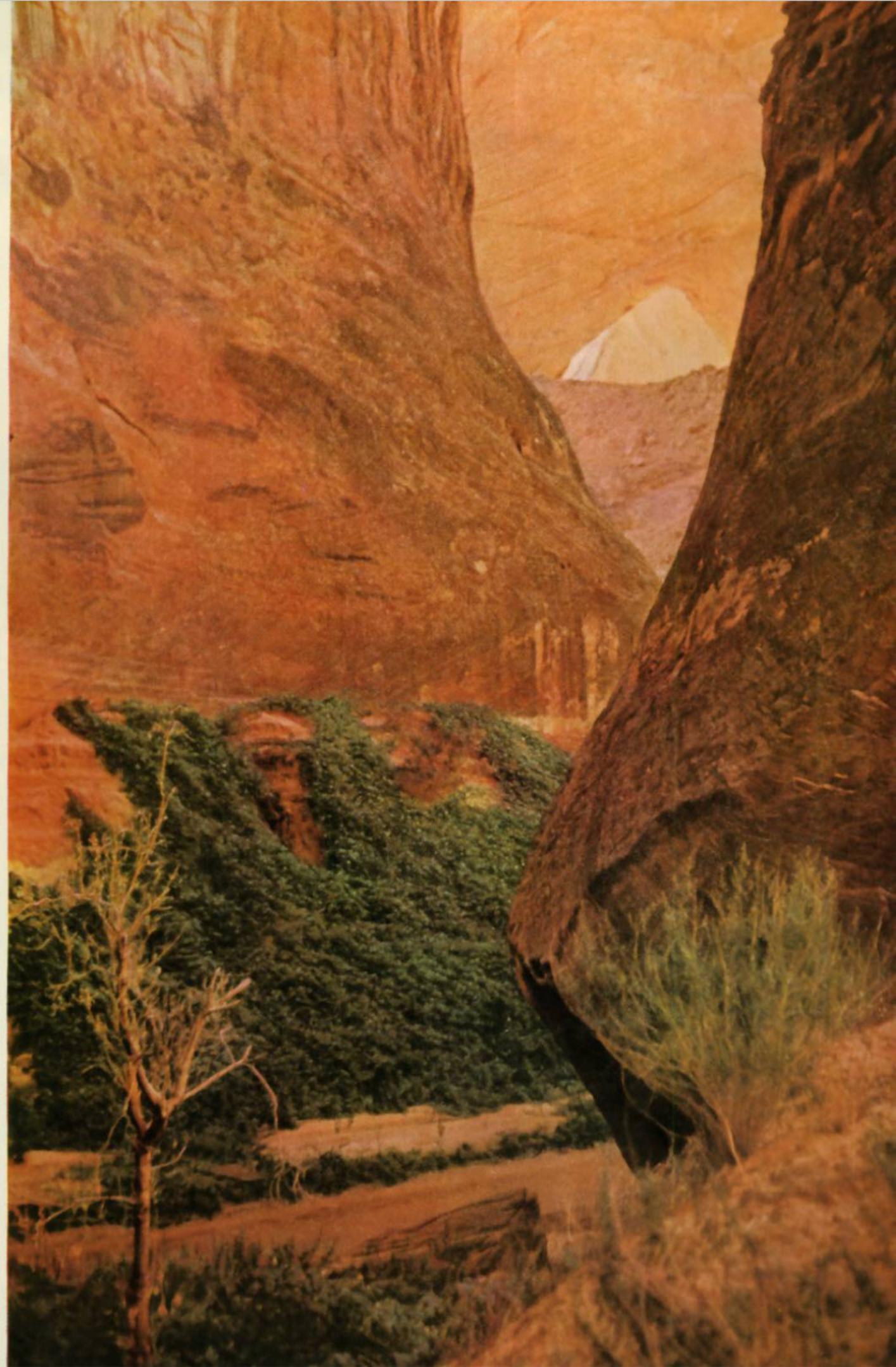
Returning again to Broken Bow, I halted to make one last photograph of the arch before leaving the canyon.

"It's good to be among the very few who have seen all 10 arches in the Escalante," Burnett remarked.

"Ten arches?" I said innocently.

"Yes, the eight natural ones, plus Moore's two fallen arches—the ones you've complained about during the climbs!"

The aches I had experienced on the trip, I admitted, would soon be forgotten, but not the awesome canyons and spectacular formations we had seen—the arches, bridges, and skyscraper pinnacles sculptured through the ages in Escalante's glowing sandstone.



Horses Clamber Up a Tortuous Trail from the Escalante

Only two or three side gulches and this precipitous path near Davis Gulch afford access by horse to the main canyon.

Leaving the river at Davis Gulch, the party first had to ascend a zigzag path up a high sand slope, then climb this narrow, tilting slickrock ridge. Frequently the men had to dismount and lead their horses, for the animals refused time and again to attempt the hazardous trail.

The passage (left) where the pack mule enters has been dynamited open. Cowboys have chipped and blasted footholds on the ridge.

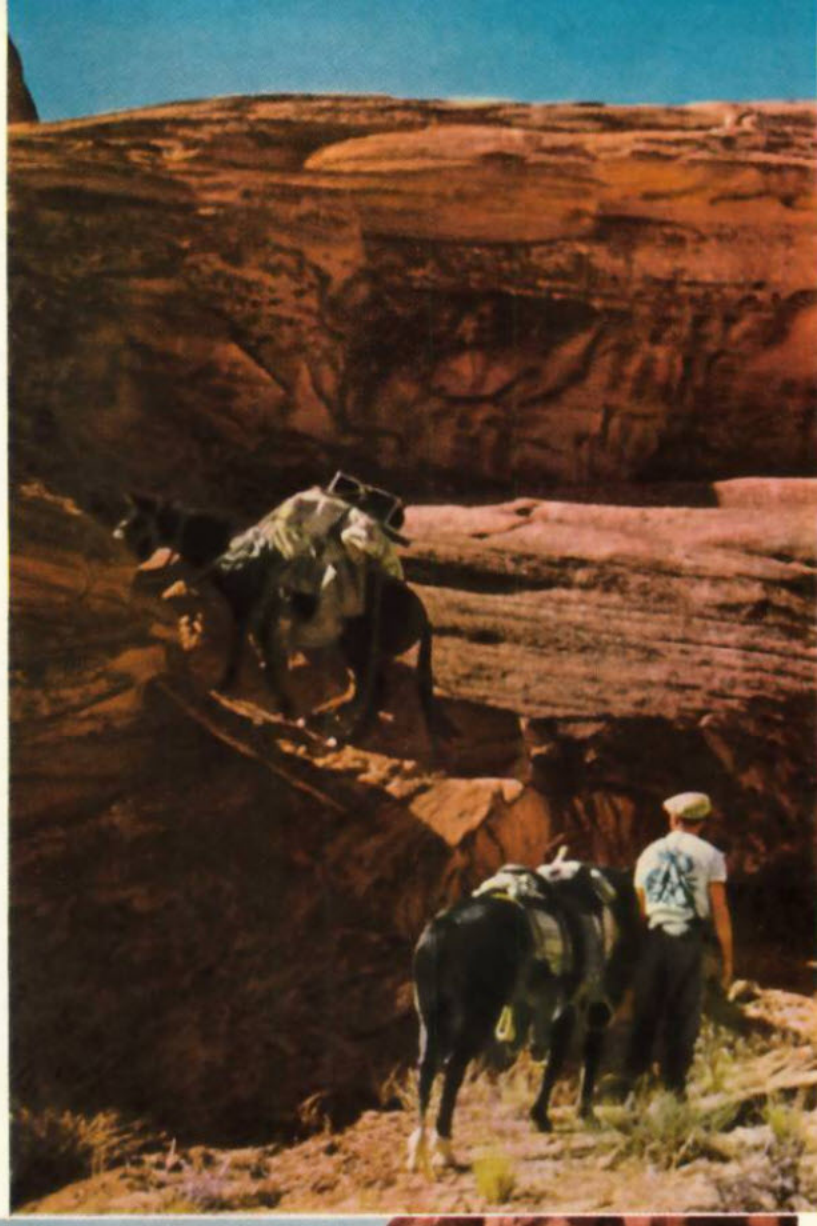
↓Author Sees Escalante by Air Before Making His Pack Trip

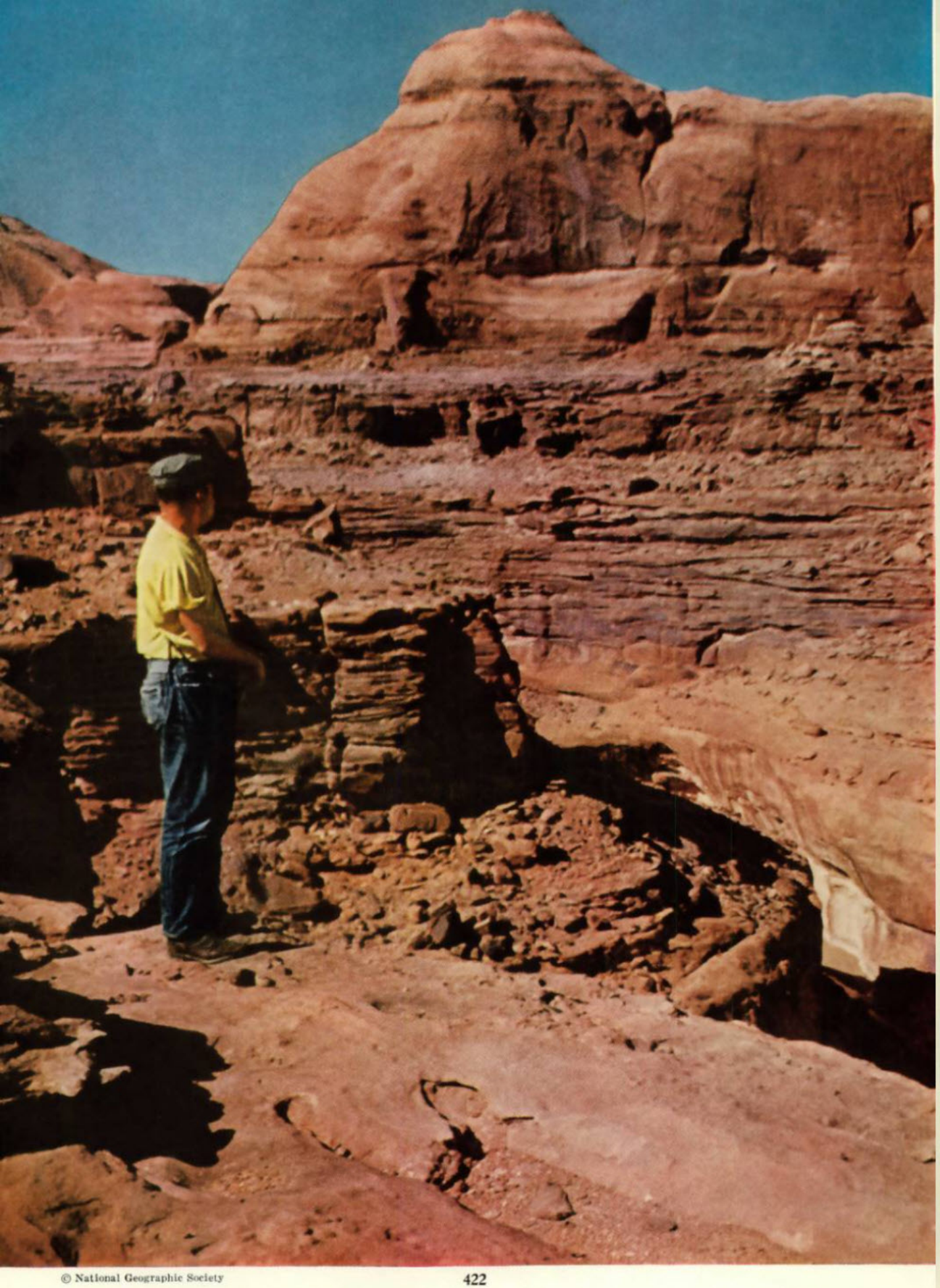
Harlon W. Bement, Director of the Utah State Aeronautics Commission (on wing), first brought the arches to the National Geographic Society's attention. With him are red-shirted Burnett Hendryx and Dr. Arthur Crawford, of the Utah Geological and Mineralogical Survey. The four men flew over the arch country in this Beechcraft Bonanza.

During reconnaissance flights the plane landed for refueling here at Goulding Trading Post, in Monument Valley.

Page 421, below: Cattlemen round up Herefords at Little Red Rock, a natural corral southeast of Escalante. Willow Tanks and Soda Springs camps have similar rock-walled enclosures.

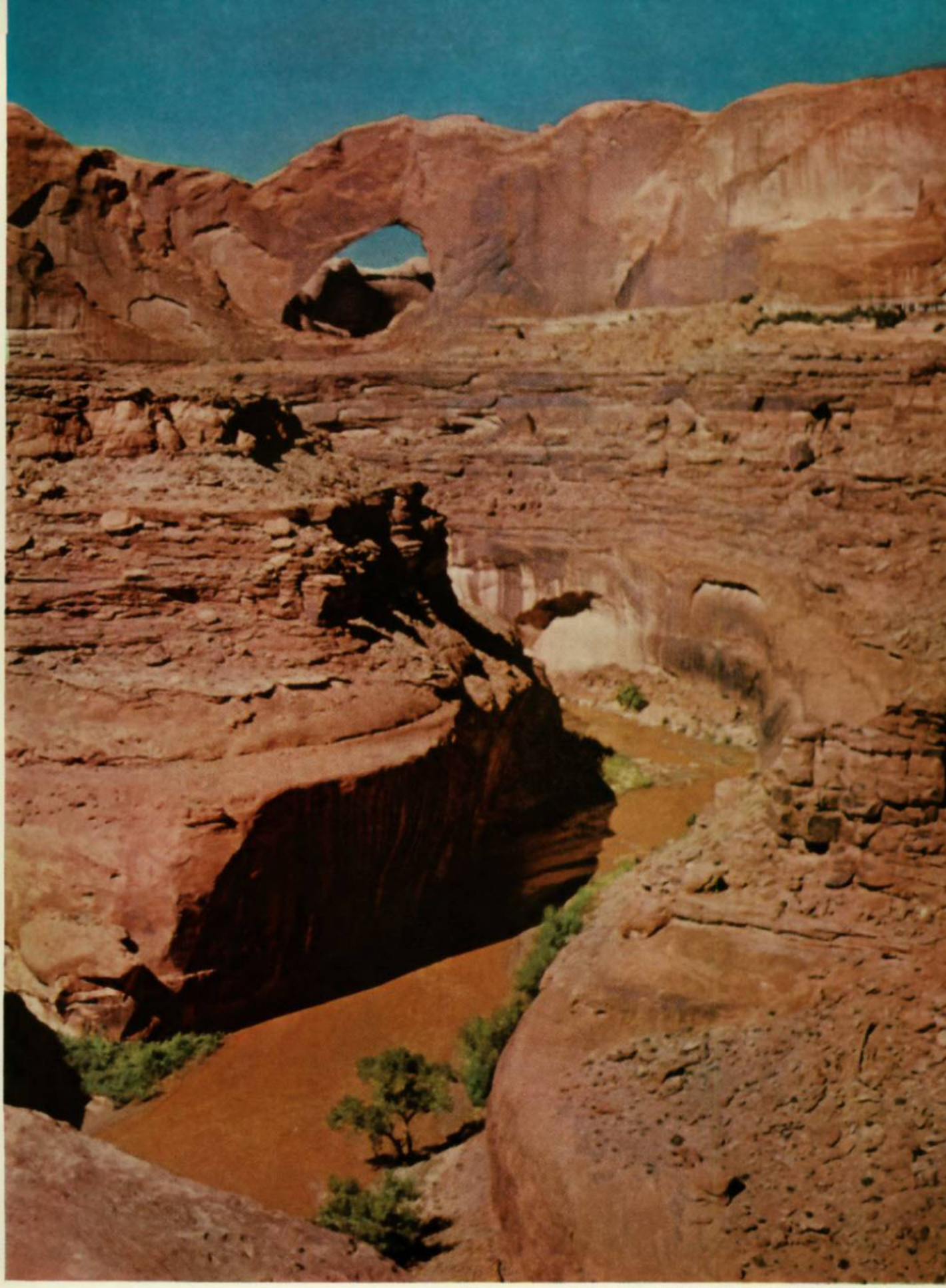
Kodachromes by W. Robert Moore, National Geographic Staff, and J. Kenneth Reid (opposite below)





An Eye-catching View of Escalante's Largest Arch Rewards a Breathless Climb

Quicksands in the Coyote (left) forced the party to detour over this rock shelf to reach the Escalante Canyon (right). The mud-stained river, digging ever deeper, flows 500 feet below the arch half a mile away.



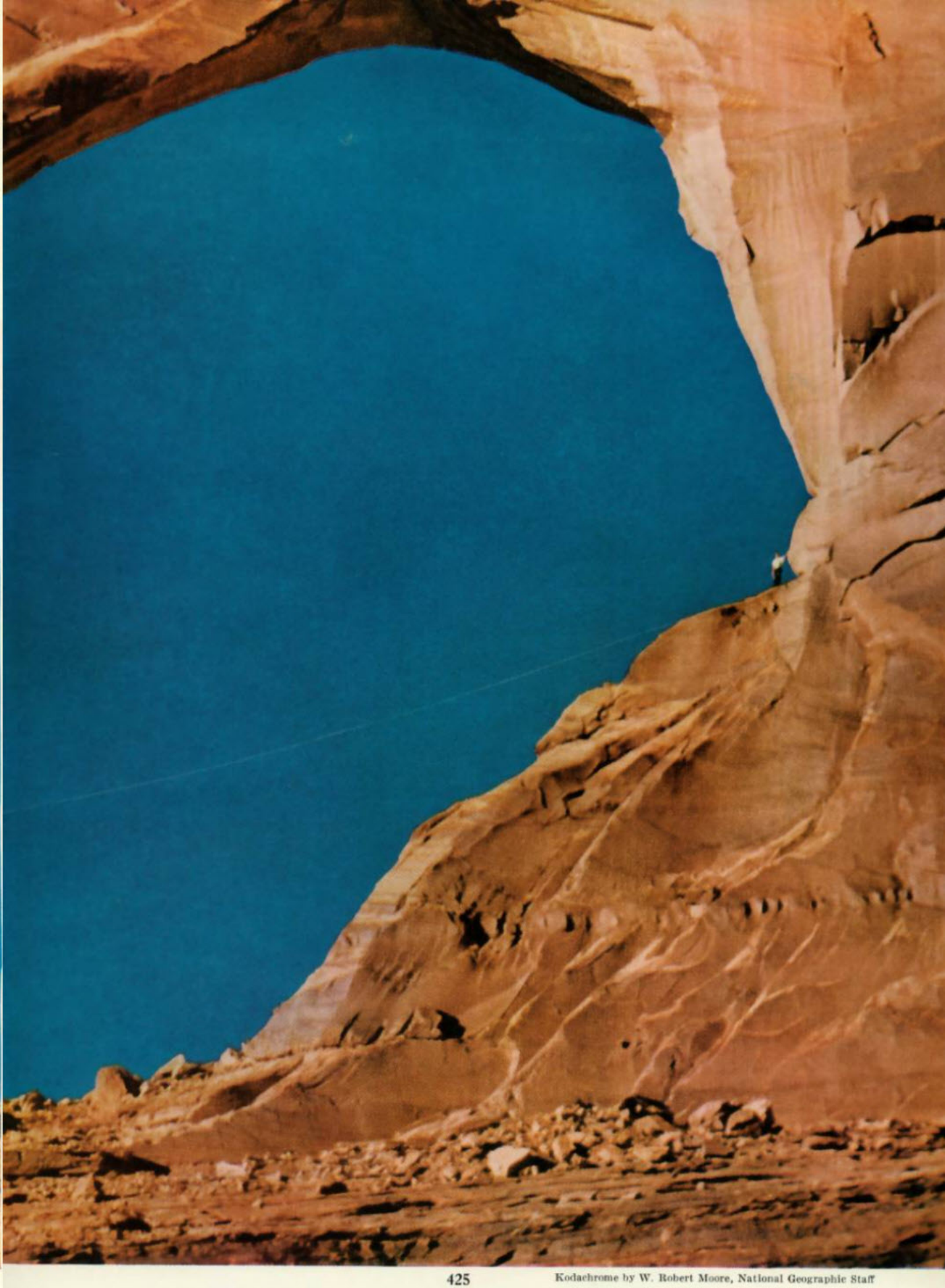
Kodachrome by W. Robert Moore, National Geographic Staff

Stevens Canyon Arch: A Giant's Peephole in a Sandstone Fortress

Except for Rainbow and Sipapu natural bridges, no known arch in the United States surpasses this one in size (page 424). Near the river bed two new alcoves have been undercut in the canyon wall.

Men Appear as Lilliputians in the Yawning Span of Stevens Canyon Arch

By crawling up cliff fractures on hands and knees, Burnett Hendryx and Bob Moore (right) reached the inside of the arch. They hold a line across the opening, which measures about 225 feet wide by 160 feet high.



425 Kodachrome by W. Robert Moore, National Geographic Staff

Cleavage Has Shorn Away the Wall Face as if with a Giant Ax

Strong winds buffet the author's son on his knife-edge perch; walls sheer away on either side to Stevens Canyon and the Escalante, 580 feet below. "I was never more frightened in my life," he later admitted.