



# THE NATIONAL GEOGRAPHIC MAGAZINE



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## Desert River Through Navajo Land

BY ALFRED M. BAILEY

*With Illustrations from Photographs by the Author and Fred G. Brandenburg*

**C**LOUDLESS skies greeted us as we stood on the shores of the San Juan, ready to start our 200-mile journey down the swift river.

Originally, eleven of us had planned to make the trip in three boats. But as we dropped down the winding trail along the cliffs of the river, a dusty automobile drove up and its occupants, a young couple, hailed us. They were honeymooners, they announced, and they wanted to go along.

Here was a problem. None of us was superstitious, but adding two would give us a party of thirteen!

The newcomers were strangers, and we soon inferred that this was the bride's first venture west of Philadelphia. However, the groom was well acquainted with the West and vowed he could handle a boat.

We considered the matter gravely. Shooting the San Juan's rapids is a glorious lark, safe enough when ordinary precautions are observed, but the river is a willful one, swift to punish those who approach it with too little respect. One wrong move can turn fun into disaster.

### 13 Aboard Four Plywood Boats

But young love prevailed, and Norman D. Nevills, the leader of our expedition, ordered another boat hauled down to the shore. It was shoved overboard and christened the *Honeymoon Special*. We never had cause to regret our decision.

So off we went—thirteen persons in four of the sturdy plywood boats which Nevills, an explorer and self-styled "river rat," designed especially for bucking the turbulent waters.

Our starting point was Mexican Hat, which appears only on large-scale maps of Utah and consists of the Nevills's home and lodge plus a few oil wells. The tiny settlement takes its name from an eroded rock formation resembling a gigantic inverted sombrero balanced atop a tall column (page 154).

An early explorer in this region said that this monument rested upon such a fragile neck that it would soon tumble to the desert floor. A hundred years have passed since he made that prediction—and the hat is still there.

Assisting Nevills were other "white water" veterans—Wayne McConkie, a biology teacher from Moab, Utah,\* who told me he learned more of Nature on his vacation journeys down the river than from his textbooks, and Don Bondurant, a civil engineer who was on leave from his War Department job.

In Nevills's boat, the *Music Temple*, were Marjorie and Francis Farquhar and Randall Henderson, editor of *Desert Magazine*. With Bondurant in the *San Juan* were Maj. Weldon F. Heald and the Reverend Harold Baxter Liebler, an Episcopal missionary who, through his years of work among the Navajos, has become known as "Father" Liebler, or the "Padre of the San Juan."

McConkie's companions in the *Hidden Passage* were Fred Brandenburg, my associate at the Colorado Museum of Natural History in Denver; my daughter Pat and myself. The newlyweds, Frank and Marjorie Cooke, aboard the *Honeymoon Special*, made up the rest of the party.

\* See "Utah's Arches of Stone," by Jack Breed, in this issue of the NATIONAL GEOGRAPHIC MAGAZINE, page 173.





#### Rocks, Sky, and Water Frame a Breakfast Nook on the Colorado

Norman D. Nevills, explorer and "white water" veteran (center), turns out flapjacks for hungry fellow campers. Frank Cooke (left) photographs the scene in Glen Canyon near the mouth of the San Juan (pages 155 and 158). After breakfast the party explored Hidden Passage, a long, narrow side canyon, its entrance marked by the dark shadow (upper left).

Our boats were shoved off, one by one, and quickly caught by the swift current (page 159). The *Honeymoon Special* all but vanished in a great trough and the bride got a thorough dousing in the first hundred yards of the journey. It was a small matter, but a hint of things to come. Waves frequently broke over the bows and wet all of us. But we thoroughly enjoyed the experience for most of the journey down the San Juan and Colorado to Lees Ferry, Arizona (map, page 153).

Since my job was making pictures of the expedition, I stayed ashore to photograph the others as the current swept them around a bend. Then, with Doris Nevills as guide, Farquhar and I traveled overland to await the arrival of the boats in the famous Goosenecks (Plate III).

Here, looking down, we saw the San Juan threading its way between the terraced walls of a canyon 1,500 feet deep. Formation of the Goosenecks began some millions of years ago when the San Juan meandered across the landscape and then was trapped as the plateau began to rise.

#### Goosenecks a Scenic Spectacle

Today the river makes five majestic bends between these towering walls, twisting back on itself so that it journeys 25 miles to cover an airline distance of five, on its way to join with the Colorado in seeking the sea.

Known to geologists as a magnificent example of "entrenched meander," the Goosenecks present a truly remarkable spectacle in a land of scenic splendors.



A Boat Almost Vanishes in a Miniature Ocean of Sand Waves

Movement of sediment on the bottom is believed to cause these hazardous riffles, encountered in relatively placid stretches of the San Juan. The narrowest boater struggles to keep his boat broadside to the current, riding with the boaters. His passengers, bobbing up and down as if riding a wave, watch a slow crawl downstream.

When the boats appeared far below us, they seemed more glistening white tops as they moved dreamily with the current.

Also visible from our lofty vantage point was a strange rippling pattern on the river's surface. This was caused by the famous "sand waves" of the San Juan, waves that roll and break just like those of the ocean.

Several explanations have been advanced for the sand waves; the one most widely accepted is that they are caused by the movement of a great deal of sediment on the bottom.

While the others of the party beached their craft and waited on the shore, Farquhar and I dropped down the steep walls on the old Hunter Trail which follows along the ledges by a series of switchbacks. We reached the

river early after a couple of hours of travel.

Once you start on this trip, you are committed to it, for the river flows between steep cliffs. You can climb out in many places, but after you get out there is no place to go. There are no trails leading along the canyon of the San Juan.

With all thirteen of us slowed our boats, we were off again, drifting easily between gray cliffs so steep that it would be impossible to climb them. In places where the canyon narrowed, the current ran swiftly—and the fun began.

There is a special technique in "white water" seamanship, and Government Rangers gave our novices their first real test. As we swept into them, I remembered that they got their name because two survey boats of an

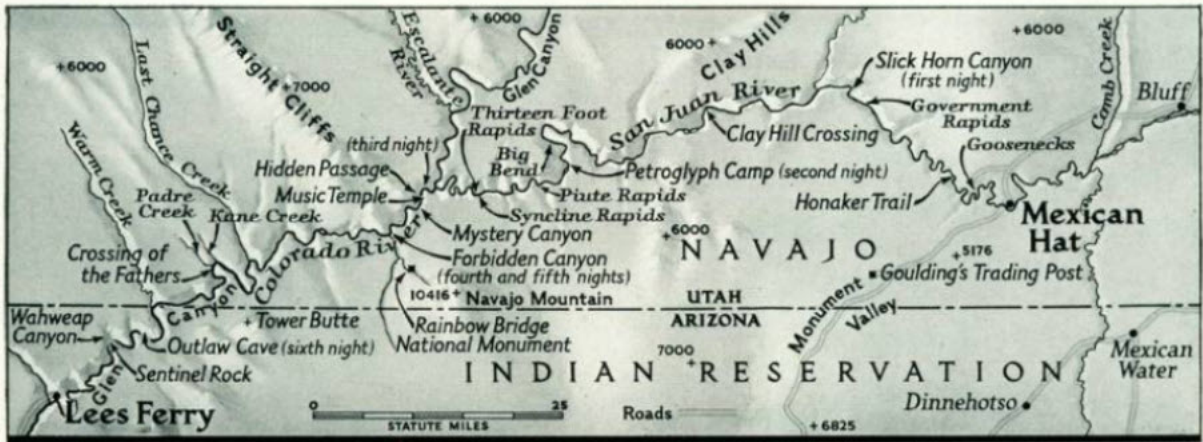




**Near Journey's End, Two Voyagers Try the Lumberjack's Art on a Drifting Log**

Steep sandstone cliffs, crowned by craggy battlements, form a backdrop for this bit of sport on a quiet stretch of the Colorado. Near here the party camped in Outlaw Cave, former hiding place of horse thieves, and read the names of early explorers inscribed on its walls. Next day, after a visit to Wahweap Canyon, the author and companions landed at Lees Ferry, Arizona (page 164).





Drawn by Theodora Price and Irvin E. Allen

### Barren Wasteland Trod by Few White Men Borders the Serpentine San Juan

From Mexican Hat, Utah, to Lees Ferry, Arizona, the author's party drifted 200 miles to cover an airline distance of less than 100. West of Thirteen Foot Rapids the San Juan merges with the Colorado in Glen Canyon. The voyagers left their boats beside prehistoric ruins in Forbidden Canyon and hiked overland to visit isolated Rainbow Bridge and explore numerous side canyons (Plate VI and pages 162-3).

early exploration party were wrecked here.

Entering the rapids, Nevills and his boatmen always keep the bow upstream. Thus the boatman faces downstream and can keep an eye peeled for half-submerged boulders. By pulling adroitly on one oar or the other, he can keep his craft out of trouble (Plate IV).

#### Shooting the Rapids

Shooting the rapids is an exhilarating experience, especially for neophytes. The boat bobs, bucks, and plunges like an unbroken colt as, guided by the sweating oarsman, it weaves between the rocks. Over the stern—actually the downstream end of the boat—come sheets of water to be bailed out when a quieter stretch is reached. Clothes become soaked, but dry quickly under the desert sun. Swimming suits and canvas sneakers are the favorite costume for travel.

There is scant vegetation along the walls of the canyon, and very little in the way of animal life. A few violet-green swallows and white-throated swifts sailed against the blue, and during the first afternoon we saw four bighorn sheep near the water's edge.

As we approached, the bighorns quickly climbed the rock-strewn slope to the base of the cliff, leaping nimbly from boulder to boulder. When we came abreast of them, they stopped and one fine ram stood in sunlight, silhouetted against the black background for a moment. Then all four turned and disappeared around a jutting promontory.

Our first day's run was 40 miles to Slick Horn Canyon, where we camped (pages 156, 157). It was the site of an old mining operation, one of several encountered en route, where hardy folk had scratched unsuccessfully

for gold and silver in paying quantities.

When we awoke it was Sunday. The first glimmer of gold bathed the top of the opposite canyon wall, and long before the glow descended to the swift water of the river McConkie had sounded the call to Sabbath services by beating a frying pan.

Padre Liebler was ready with his vestments and conducted an Episcopal service in as beautiful a cathedral as has ever been used as a place of worship. Age-worn rock of a low ledge served as an altar, and the quiet waters of a crystal pool reflected the morning light as the sun climbed higher.

After a good breakfast we shoved off and traveled for miles between high walls which dropped straight to the water. Gradually the gray rocks changed to the vermilion Wingate and Navajo sandstone formations; the cliffs lowered, and the river widened at the historic Clay Hill Crossing where side canyons gave approach to the shallow waters.\*

#### Where Piutes Farmed

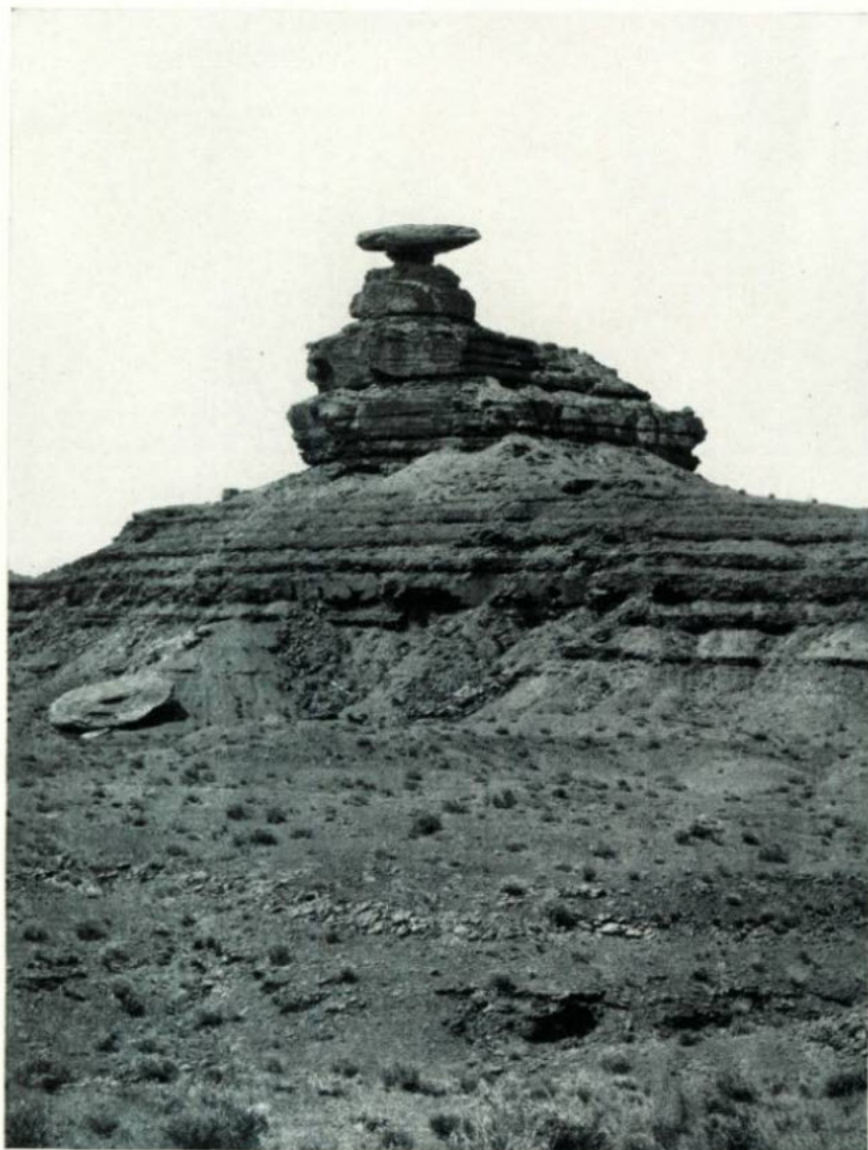
It was on the level lands of this fording place that the Piute Indians farmed in the old days, laboriously irrigating their fields of corn with water from the muddy San Juan.

We had a rather difficult time in the wide reaches of the river, for the water was so shallow that boats were constantly being grounded and it was necessary to go overboard to shove them along. A great deal of good-natured name calling ensued whenever a fortunate boat caught a deep channel and rapidly passed another caught on a bar.

One of the fine views during the afternoon

\* See "Beyond the Clay Hills," by Neil M. Judd, NATIONAL GEOGRAPHIC MAGAZINE, March, 1924.





R. P. Fligel

### An Upside-down Stone Sombrero Crowns Lofty Mexican Hat

Near this Utah landmark the author's party started down the San Juan. The hat, 62 feet wide across the brim, balances atop a red-shale mound nearly 400 feet high. A century ago an explorer predicted it would soon fall to the desert floor (page 149).

was of a tall butte, a red mass against the dark-blue sky, with a foreground of willow and green cane.

The trip down the San Juan is a constant delight because of the ever-changing vistas through a region where no one is seen along the shores. It is a world apart, with three or four people to a boat, all dawdling at ease, the boatmen merely keeping the stern downstream, pulling occasionally to miss a boulder and the rest of the time helping the passengers solve the problems of the world.

#### Sand Waves Cause Trouble

The current carries the boat along at its own pace, now fast through rapids and again

slowly over the calm stretches.

On the second day's run, big sand waves were constantly building up, breaking, and often filling our boats with water. With rapids to run, sand waves breaking at unexpected moments, and swift currents throwing us into the boulders, it was natural that people should go overboard occasionally.

Our experiences were not different from those of others, for practically everyone took an unexpected plunge sometime during the trip. The second afternoon the *Honeymoon Special* hung precariously on a rock, with the current threatening to capsize it, while the newlyweds climbed for the high side and tried to rescue movie cameras from threatened disaster.

Our camp the second night was at the Big Bend, 88 miles from Mexican Hat. Because of pictures on the rocks, drawn by some primitive artist generations ago, we called this the Petroglyph Camp.

Pat and I threw our bags down alongside

one great boulder which had been decorated with curious figures, and we wondered how many hundreds of people through the ages had taken shelter in the same place.

The third day's run down the San Juan is through some swift water, hardly comparable to the Grand Canyon of the Colorado, but nevertheless through jagged channels which necessitate careful piloting.

Navajo Mountain, the great landmark in that part of the world, thrusts its head 10,416 feet toward the sky,\* and we were able to get occasional glimpses as we traveled along the

\* See "Encircling Navajo Mountain with a Pack Train," by Charles L. Bernheimer, NATIONAL GEOGRAPHIC MAGAZINE, February, 1923.



beautiful straight-walled red canyon.

Piute, Syncline, and Thirteen Foot Rapids were run in quick succession, without incident other than the filling of the boats with water.

Slow-motion pictures made from the bank show the boats disappearing from sight and enthusiastic passengers enjoying the thrill of their lives as they emerged from the flying spray.

In the late evening we reached the junction of the San Juan and Colorado Rivers. While the others waited, our boat traveled ahead that we might climb the mountain on the far shore of the Colorado to photograph the others as they emerged from the shadows into Glen Canyon (page 158).

#### A Quiet Stretch of the Colorado

It is an isolated region which has been visited by only a few. There are no signs of habitations—just cliffs and narrow shores grown with willows and tamarisk, and rounded, wind-blown rocks of red sandstone which have been incised by the winds of untold centuries.

We had now entered the peaceful stretch of the Colorado,\* where it runs swiftly for 80 miles through the last half of beautiful Glen Canyon, named by John Wesley Powell on his first expedition, because of little amphitheatres and wooded caves which broke the overhanging walls.

The sand waves and rapids of the San Juan were behind us, but still ahead were scenic and historic places—Music Temple, Rainbow Bridge National Monument, and the Crossing of the Fathers—so far from the beaten path that only a privileged few have visited them.

Our evening camp was on a bar a short



No Laughing Boy Is Joe Navajo, Junior

Before tackling the San Juan, the author visited the Navajos of Monument Valley. Here he found mothers still strapping their babies to cradleboards like those of Basket Maker times. A hoodlike arrangement shields the youngster's eyes from the sun (Plate I).

distance below the meeting place of the two rivers, and I was out of my bag before sunrise the following morning to photograph the golden glow descending from the summits of the hills beyond. The camp slowly came to life, and while McConkie fried ham, bacon, and eggs, Nevills started throwing flapjacks with reckless abandon. It is surprising how much food can be disposed of by people having a good time (page 150).

The fourth day was given over to the leisurely exploration of side canyons. Hidden Passage, a narrow valley lined with straight

\* See "Surveying the Grand Canyon of the Colorado," by Lewis R. Freeman, NATIONAL GEOGRAPHIC MAGAZINE, May, 1924.



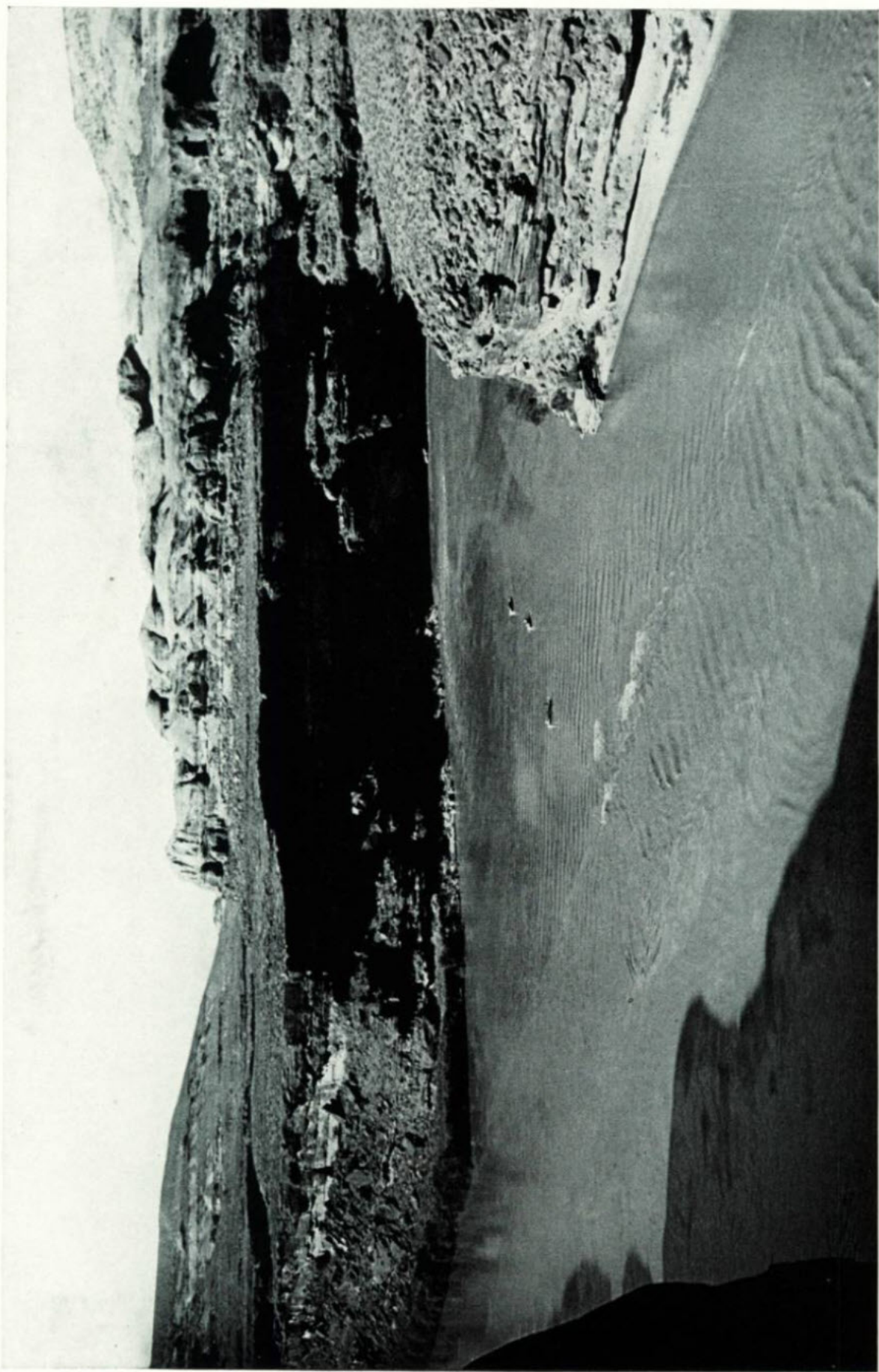
*Honeyman Special Drifts Warily Down upon Boaking Rocks Below Slick Horn Canyon*





The Party Camped on a Gold Miner's Site, Held Sunday Services in a Rock-walled Cathedral

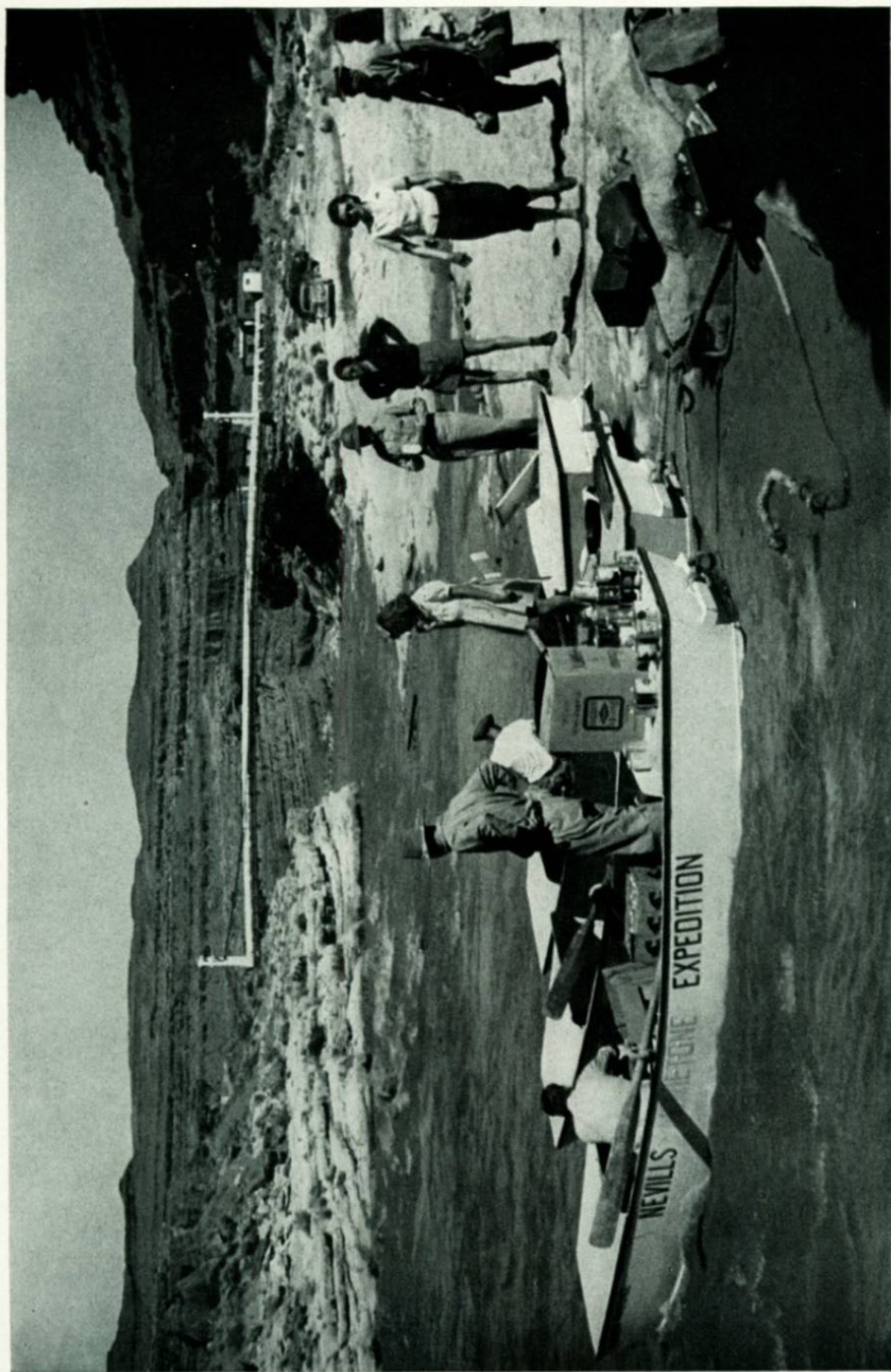




Near the Arizona Border, Two Rivers Meet in a Wasteland of Timeworn Sandstone

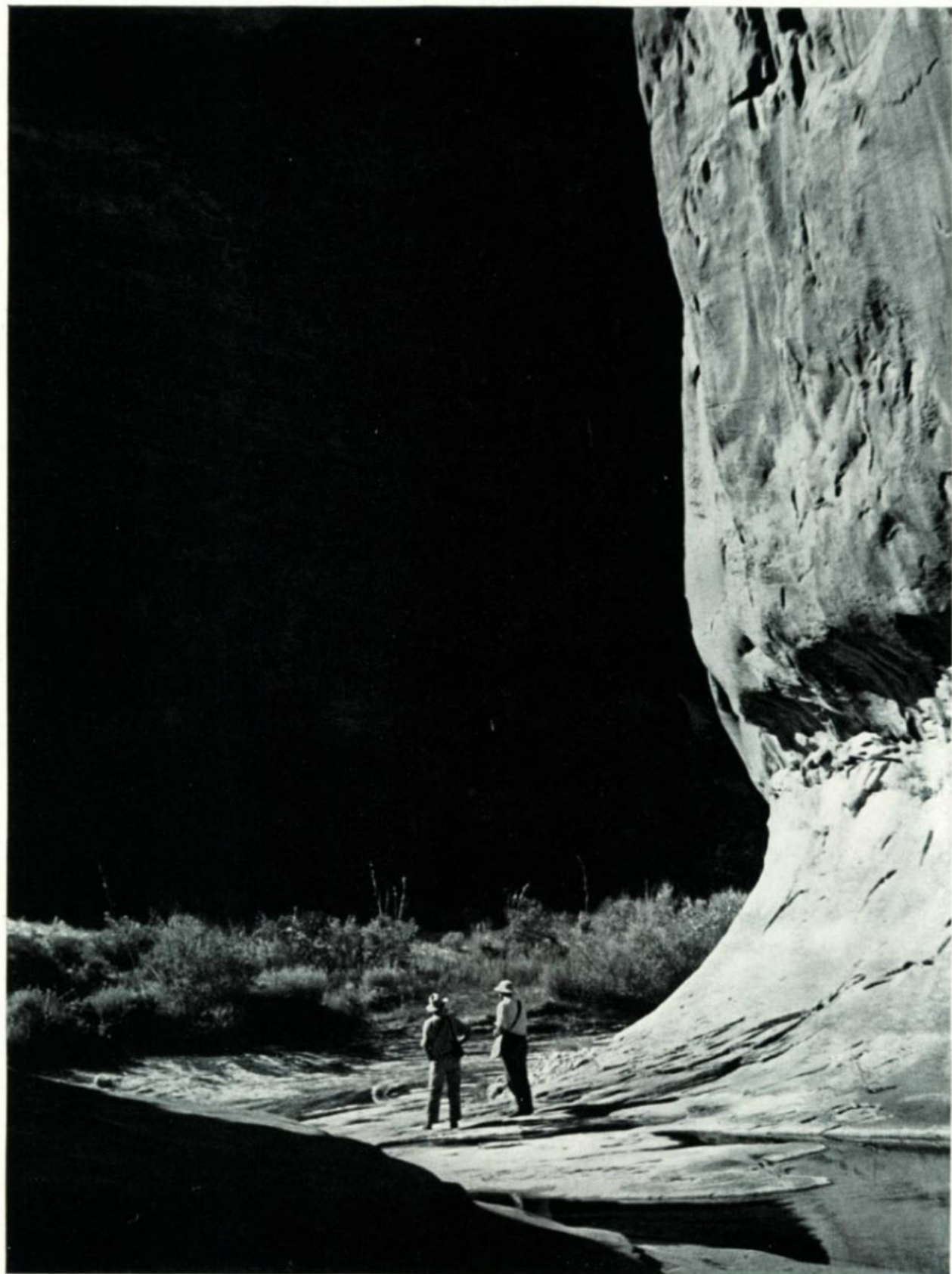
Merging currents of the San Juan (right) and Colorado Rivers form a herringbone pattern. Here the Bailey party's boats enter Glen Canyon, named by explorer John Wesley Powell (page 155). At one point the two streams are only five miles apart, but the winding San Juan travels 34 miles before joining its sister.





**White Water Ahead! Into Specially Constructed Boats Goes Equipment for 200 Miles of Adventure**

Cans of food were numbered with paint, for labels would be washed off at the first rapids. Perishable articles were packed in watertight containers. The Bailey party began its journey here near the San Juan bridge, at Mexican Hat, Utah.



**Shadows Blacken the Towering Walls of Rainbow Bridge Canyon**

Dwarfed by overhanging cliffs, the author and friends hiked through this gorge to see the Navajos' sacred stone arch, discovered in 1909 and visited since then by many famous persons (Plate VI and page 163). Canyon walls rise sheer from 6 to 1,200 feet, broken by many caverns several hundred feet deep.





They Clamber Over Slickrock "Where Salts and Herons Trod"

To reach the Crossing of the Fathers on the Colorado, the voyagers made a roundabout trip over rocks so hot they raised blisters on fingertips. This labyrinthine region was much known by Padre Silvestre Villar de Escobedo and his assistants, 18th-century explorers who cut steps which are still visible (page 134).

walls, ran back for miles and offered adventure in the way of steep slopes to be waded. A beautiful little waterfall was bordered with ferns, and where light filtered into a head of the canyon tall yuccas were in bloom.

#### Where "Old Steady" Sang

Across the river was Music Temple, where Powell camped on his trip of exploration on August 1 and 2, 1849. The explorer aptly named the narrow passageway because Old Steady, his cook, sang nostalgic songs there.

Powell, later to become a founder of the National Geographic Society, said in his notes:

"When 'Old Steady' sings as a song at night, we are pleased to find that this hollow in the rock is filled with sweet sounds. It was doubtless made for an academy of music by its

stern-born architect; so we named it Music Temple."

No light entered the canyon for color photography, but it was a delight to wander where early adventurers had trod. On the walls we found the names of William H. Dunn, of the first Powell expedition—who with two other men was killed by Indians when he left the party a day before the journey through the canyon was completed—and of Powell himself and others of the 1871-2 expedition.

Two miles below was Mystery Canyon, so named locally because of steps carved by Indians into the cliffs, a faint trail which leads upward, but so worn by time that no one has been able to reach the ledge above.

Neville hopes to return with adequate tools that he may solve the mystery of what lies beyond. Pools of clear water mirrored sky



#### When Tired of Drifting, One Can Always Get Out and Swim

Pat Bailey (left) and Marjorie Farquhar cool off with a plunge in the muddy Colorado near the Crossing of the Fathers. In the boat, Norman Nevills handles the oars, with Francis Farquhar (left), of the Sierra Mountain Club, and Randall Henderson, editor of *Desert Magazine*, as passengers.

and grass and walls so perfectly that it was difficult to tell where reflection ended and reality began (Plate VII).

Our boats worked through the narrow passageway for several hundred yards, and then we hiked to a great domed room with gently sloping banks grown with ferns and columbines, and with a dark swimming pool that offered an irresistible lure.

A short distance beyond Mystery Canyon, on the opposite side of the river, was another narrow passageway with vast curving amphitheaters cut from the solid rock by rushing water carrying rounded boulders as grinding agents.

The stream bed was filled with the worn stones, which no doubt had been carried many miles by the floods that occasionally rush down the narrow channels. At the entrance was an overhanging rock in deep shade, where an Indian artist of long ago had depicted animals of the region.

Then as twilight descended on the desert river, we made Forbidden Canyon, another overhanging cliff with narrow shelves. We spread our bags alongside prehistoric ruins that were still further reminders of the people who had lived in this remote area and passed on, probably leaving the world about as they found it—no better, or no worse, for their having spent their brief span of years.

The winding stream leading through the canyon for a short distance was full of catfish, and we caught a fine string, so that a bacon and fish breakfast fortified us for the 12-mile hike ahead.

#### To Rainbow Natural Bridge

Forbidden Canyon is the starting point for the overland trek to one of the scenic wonders of our great American desert—the Rainbow Bridge, made known to the world by Prof. Byron Cummings and his guide, John Wetherill, the trader to the Navajos, back in 1909.



Another party under leadership of W. B. Douglass, of the United States General Land Office, also visited the bridge at the same time. Nashja-begay, a Piute who had already seen the bridge, guided the white men the last half-day of the trip.\*

We started early, loaded down with lunch and cameras, and wound along in single file through the deep shadows cast by steep walls.

It was over four miles along the rocky floor of the canyon, which widened in places so there were dense stands of scrubby vegetation with flowering spikes of yucca thrust skyward, to the tributary which leads to the bridge. There in the shadows was the name of Ellsworth L. Kolb, famous in the annals of river exploration, with an arrow to indicate the direction to the bridge, another mile and a half beyond.

And what a journey it was! Massive overhanging cliffs black against patches of sunlight; glistening pools of crystal-clear water which constantly beckoned; the fluttering of ash-throated flycatchers against the blue as they sailed from one scraggly limb to another; and the echoing calls of the canyon wrens. It was cool along the canyon floor; so the 6-mile hike was just one more enjoyable experience (page 160).

The Rainbow Bridge is well hidden below towering walls; so when we rounded an abrupt bend we were not prepared for the breath-taking beauty of this span of wind-smoothed rock arching more than 300 feet above the creek bed (Plate VI).

Here was one of the isolated monuments of our country, for it can be visited only by hiking from the shores of the Colorado River or by a long overland pack-train trip. Before us at last was *Nonnezoshi*, the great "hole in the rock," or "arch" of the Navajos, or *Barohoini*, the "rainbow" of the Piutes. It is the largest known natural bridge in the country, unless one visited by Norman Nevills in a remote wilderness proves to be larger.

#### A Marvel of the Southwest

Rainbow is of reddish-brown sandstone, laid down in the Jurassic period when dinosaurs roamed over the western States, and was formed by a meandering stream cutting on both sides until an opening was made, allowing the stream to straighten its course. Through the centuries the walls have been worn and polished by winds and rains, and today we have one of the geological marvels of our Southwest.

\* See, in the NATIONAL GEOGRAPHIC MAGAZINE, "Great Rainbow Natural Bridge of Southern Utah," by Joseph E. Pogue, November, 1911.

Since then, many notable people have journeyed to view the great arch, and we enjoyed running through the pages of the ledger in its weatherproof box.

Some twenty-one years before our visit. Stephen S. Johnson, using the Navajo name for the bridge, had inscribed:

#### NONNEZOSHIE

Nonnezoshie, arch of nature,  
Carved from hills of reddish sandstone,  
Worshipped by the wandering Indian,

As a God to fear yet reverence,  
Placed by Him who carved the Universe,  
In a spot of fearful grandeur,  
Far from human habitation. . . .

Grandest sight that eye may rest on,  
Waits us at our journey's ending,  
When we see your monster key-stone,  
Bathed in gold of desert sunshine.  
Nonnezoshie, born of Utah.

And some unknown, no doubt greatly impressed, had written:

Sublime, invention ever young  
Of vast conception and flowering tongue  
To God, the eternal theme.

Then B. M. G. added the following:

A handstand—cartwheel—yell on top—  
It seems at something none will stop  
To do the deeds they'll never falter  
Those same would jig upon an altar  
If you would do a handstand—cartwheel—yeller be  
Do it somewhere else than Nonnezoshie.

And someone, a cynic, I fear, objected to something on the opposite page:

A good example of the attitude of many of the thin chested—anemic—blank's cousins who should be shoe clerks instead of government men in a country as wonderful as this—and by the way—one they never will understand.

We ate our lunch in the shade of small trees at an ever-running spring, and then Marjorie Farquhar, Major Heald, and Randall Henderson climbed the arch. A rope was needed to get from the canyon wall to the bridge, and then the climb was fairly easy.

The return six miles down the canyon with evening shadows massing black was pleasant. The young women had counted the crystal pools and had estimated they could swim a third of the way back to camp, but their enthusiasm wore off after the tenth or eleventh plunge. Nevills, faster on his feet than the rest, was first in camp and had supper under way by the time we straggled in.

The sixth day of the journey was between upright walls of red stone through some of the most beautiful desert country of America. Violent winds have swept the "slickrock" clear of soil, so that there are vast expanses of polished rock blistering in the sun.



This is the region made famous by Padre Silvestre Vélez de Escalante and his associates because of their journey in 1776. For days they followed along the overhanging cliffs on the north side of the canyon, hoping to find a way to get to the river and a ford across to the opposite bank.

Finally, after many hardships, they discovered a route from the barren plateau over slickrock to the creek bed below. Many of the landmarks are so well named that one has no difficulty in recognizing them, particularly Tower Butte, which is an isolated red formation thrust against the ever-blue skies.

Desiring to visit the Crossing of the Fathers, we landed at Kane Creek about one mile above Padre Creek. It was necessary to travel by a roundabout route over slickrocks so hot that they raised blisters on Major Heald's fingertips when he attempted to scale some difficult slopes (page 161).

There is an ancient trail dimly visible across the parched rocks, a pathway probably polished through the centuries by moccasins of natives. The route was along the ridges skirting high over Padre Creek and finally winding down toward the trickle of water below.

#### Hardships of an Early Explorer

Padre Liebler, Frank Cooke, and I, loaded with cameras, scrambled down the dimly marked course, for we desired to photograph the steps cut in the hard rock over which Escalante had descended to the creek below.

Escalante inscribed in his *Journal*, November 7, 1776: "To lead the animals down by their bridles to the canyon, it was necessary to hew steps with an ax in a rock for a distance of three yards or a little less. The animals would go down the rest of the way but without pack or rider."

The parallel grooves are still visible after nearly 175 years of weathering. Padre Liebler descended in Escalante's footsteps, "where Saints and heroes trod," and we ground off a bit of color film that we might have a record of this historic spot which has been viewed by only a handful of people.

Later, as we passed Padre Creek on our way down the river, we saw the plaque erected in memory of the courageous churchmen, and we photographed the fording place.

Escalante states that after they reached the river, "we went down along it for a distance of two gunshots, now through water, now along

the shore, until we reached the widest part of the stream where the ford seemed to be." It was a colorful place, little changed by time.

We crossed from Utah into Arizona at Warm Creek, and on the overhanging wall, during a period of low water, Norman Nevills and Barry Goldwater, some years previously, had marked the State line. They had added, "Arizona Welcomes You."

#### A Haven for Horse Thieves

Our last night's camping place was in Outlaw Cave, so named because it was a former hiding place for horse thieves. As we spread our blankets in the sands that evening and contemplated the stars, Nevills came over and said to Pat, "You know, the last trip down, I killed the biggest rattler I've seen in the canyon, right where your bag is!"

On the wall of the cave are the names of river explorers, including Nate Galloway, who was one of the first to use the technique of going into the rapids sternfirst. Galloway was a trapper who made two trips down the Colorado from Wyoming in 1895 and 1896 and one in 1909 from Utah.

The seventh and last day of the trip was over quiet waters lined with the usual red walls thrust toward the cloud-flecked blue. We could see a difference in the vegetation, for many agaves—century plants—with their tall flowering spikes were visible wherever the cliffs broke away (Plate VIII). A great log piled on a rock intrigued Nevills; it was shoved off, and different members of the party enjoyed a ride until it was finally stranded.

We ran behind Sentinel Rock into Wahweap Canyon, where there was drinking water, and then continued on to Lees Ferry, named for the ill-starred John Doyle Lee, who was executed for his part in the Mountain Meadow Massacre of 1857.

And so ended our journey along the border of Navajo Land. It came so abruptly we were not prepared, for we had been traveling for days without seeing anyone but the members of our own group.

We had rounded a bend, and there before us was civilization as represented by a welcoming party awaiting our arrival. Our trip was over, except for a short visit among the Navajos in Monument Valley, and in retrospect we have the memories of some of the most beautiful desert scenery in this grand land of ours.

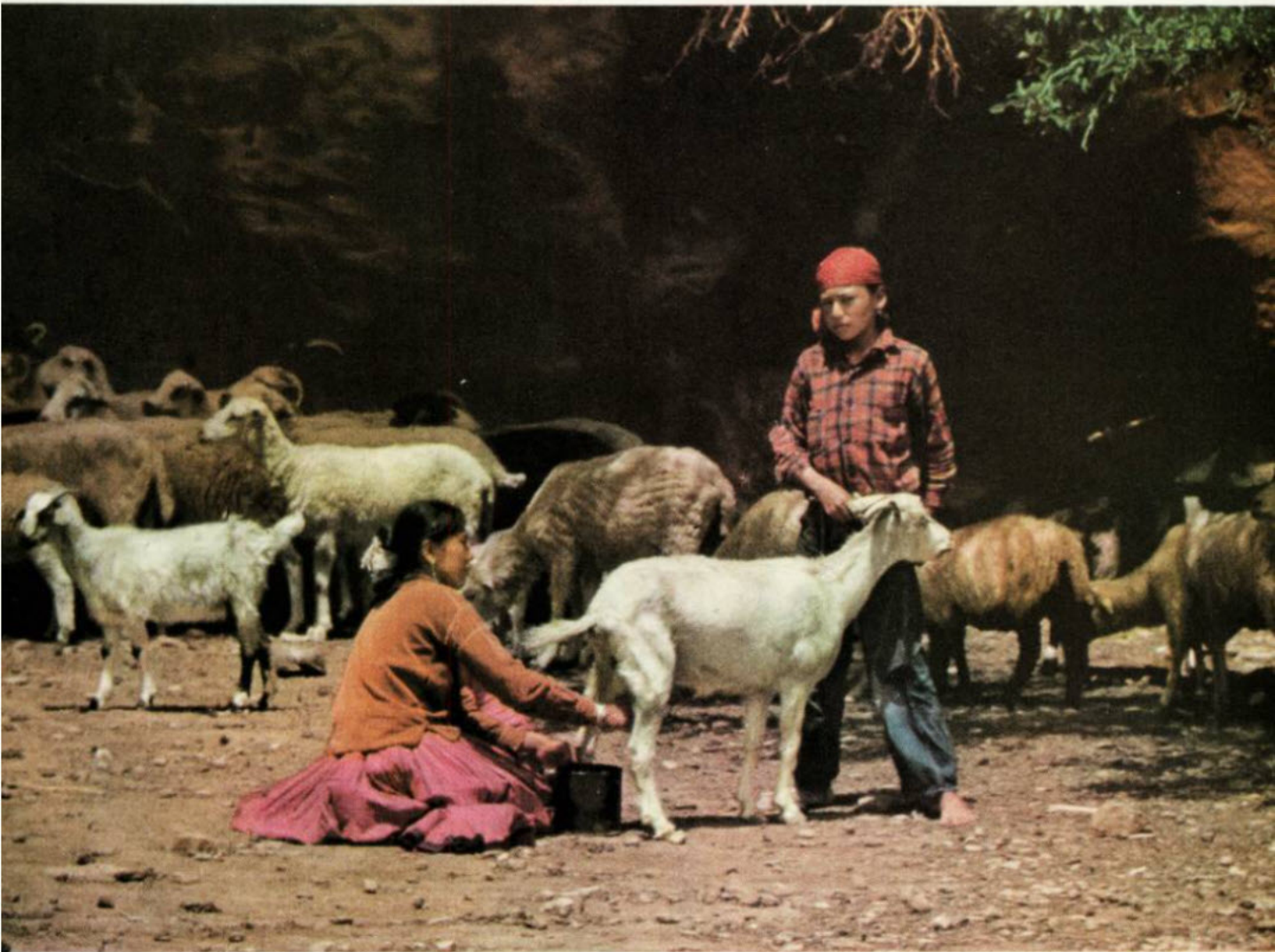
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#### INDEX FOR JANUARY-JUNE, 1947, VOLUME READY

Index for Volume XCI (January-June, 1947) of the NATIONAL GEOGRAPHIC MAGAZINE will be mailed upon request to members who bind their copies as works of reference.



## Desert River Through Navajo Land



### Hold Still, Nanny! Milking a Balky Navajo Goat Is a Fore-and-aft Job

While the Indian boy holds a horn to steady the animal, his sister fills her pail, keeping watch for the goat's flicking tail. Navajos of Utah's San Juan River country once were so warlike that Col. Kit Carson had to lead an expedition to quell them. Now they are a peaceable people, depending upon flocks of sheep and goats for livelihood.



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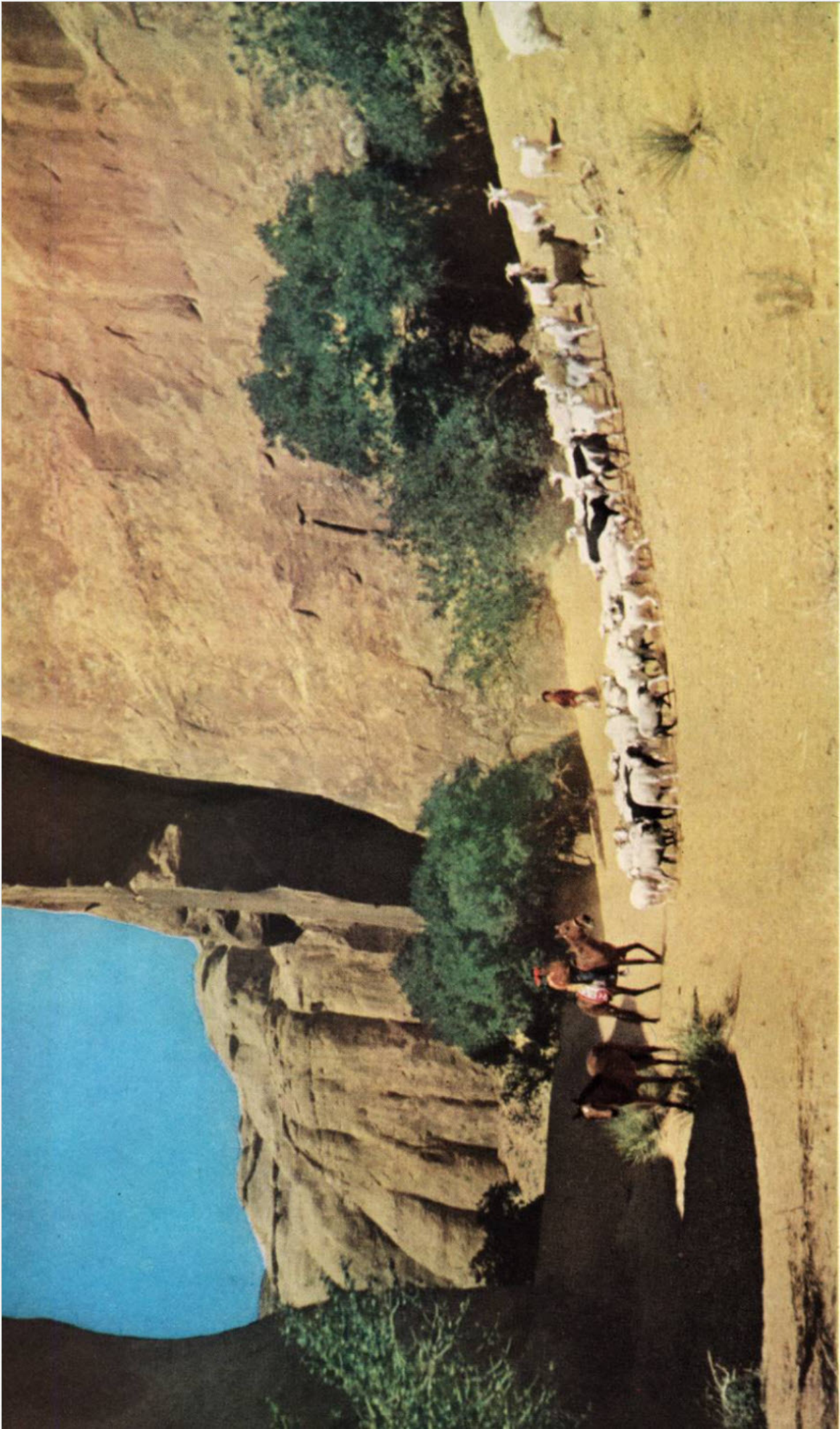


Kodachromes by Alfred M. Bailey and Fred G. Brandenburg

### Two Jobs—Raising Children and Weaving Rugs—Occupy Navajo Women

The girl (left) wears full skirt and silver-adorned velvet jacket, like her mother's. Beside her, a baby is strapped to cradleboard. Borders of Navajo rugs are seldom complete; a thread leads out to let evil spirits escape.

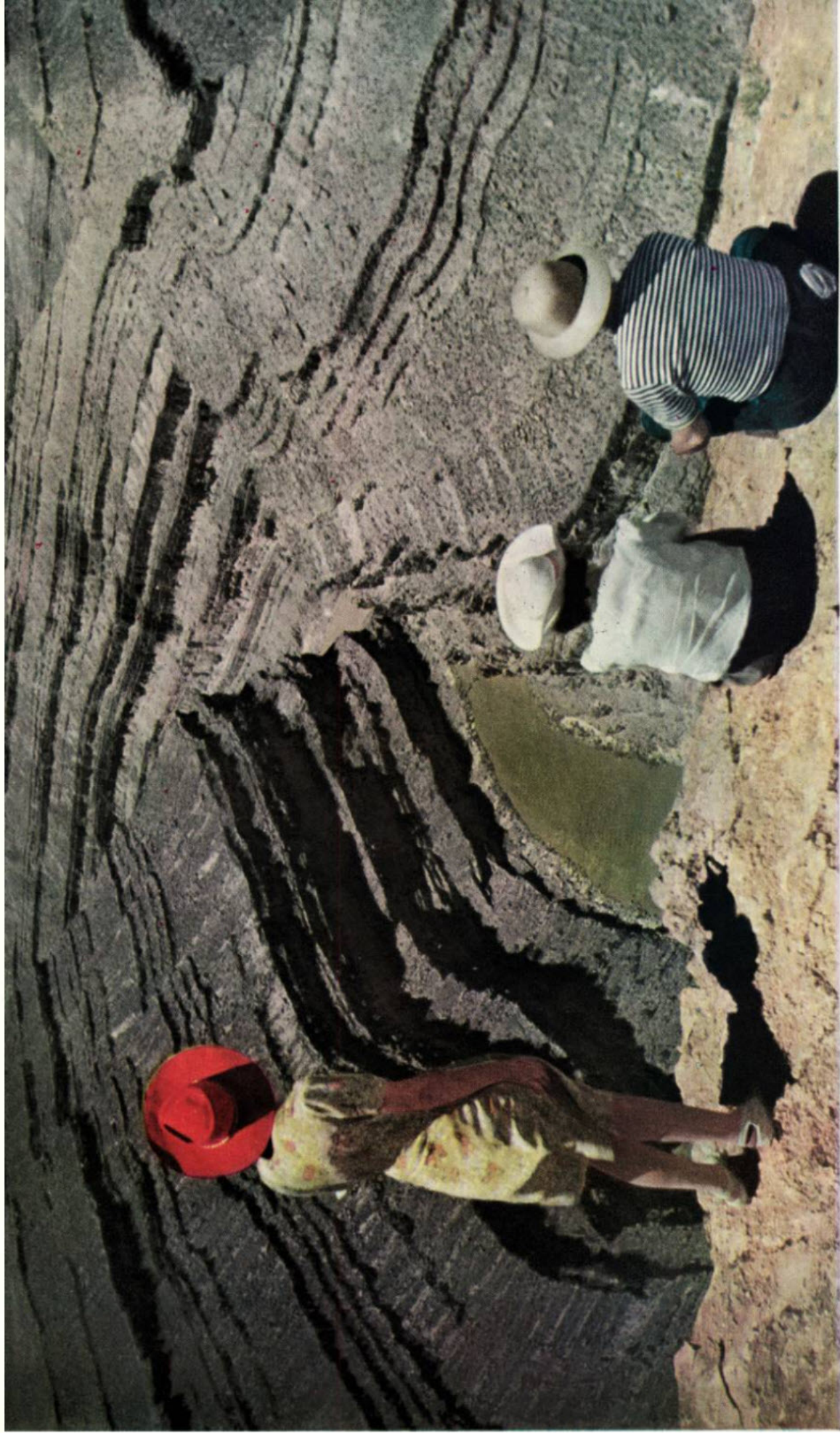




**Between Monument Valley's Towering Walls, Navajo Sheep and Goats Trot Along in Their Endless Quest for Food**

Forage is scarce in this semidesert area of southeastern Utah. To escape the heat, herders and animals often take shelter in caves or in the shade of overhanging cliffs.





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III

Kodachrome by Alfred M. Bailey and Fred G. Brandenburg

Curving Through the Goosenecks, a Canyon 1,500 Feet Deep, the San Juan Flows Six Miles to Cover an Airline Distance of One



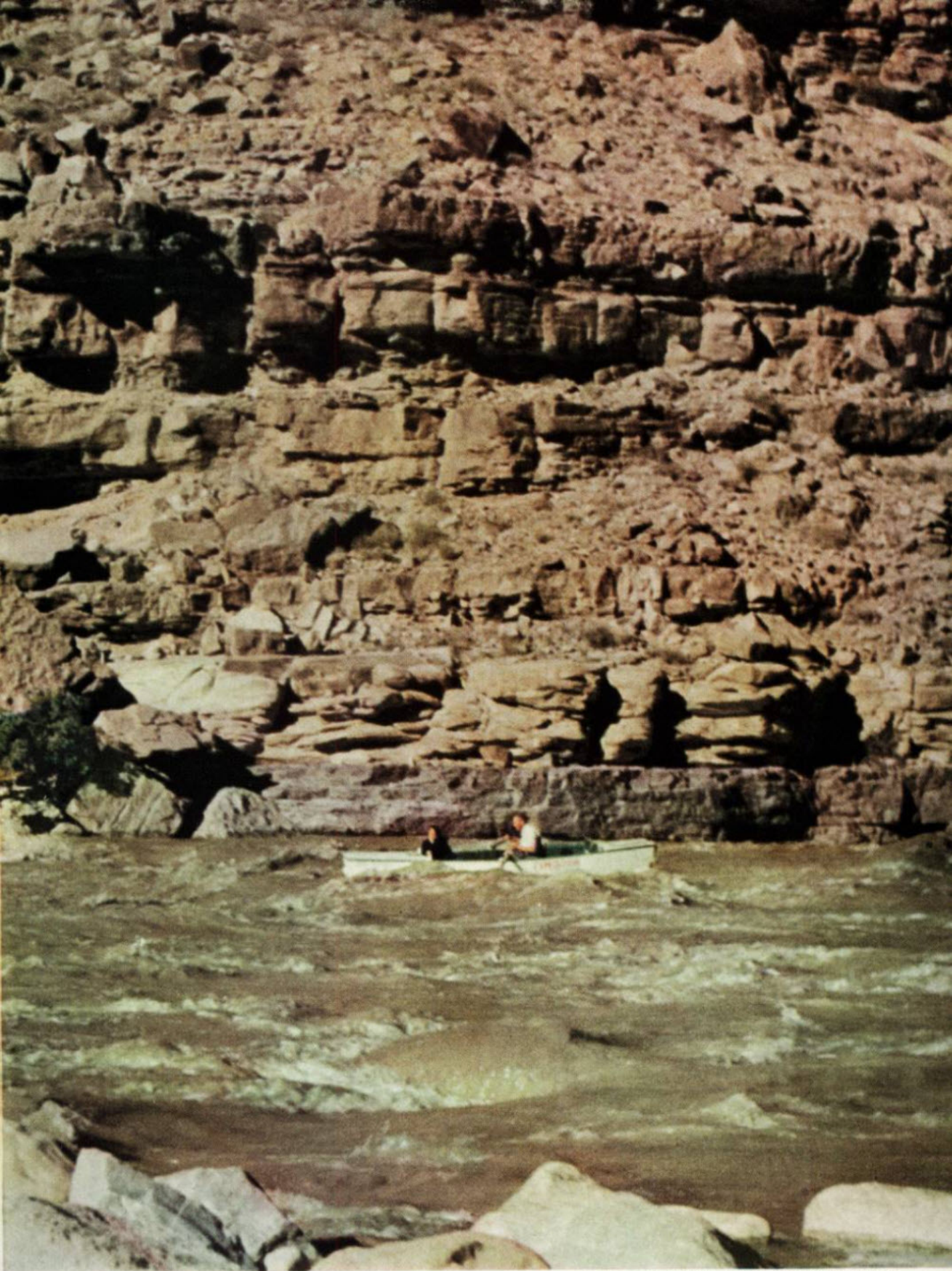


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### Strong Arms Guide a Plunging Boat in Brawling Government Rapids

*Honeymoon Special's* bow vanishes while its stern tops a wave. Approaching the rapids, oarsmen hug the quiet water along the far shore (opposite plate) and then turn quickly into the "white water" to evade rocks. Duckings were frequent in the 200-mile 7-day journey down the San Juan and Colorado.



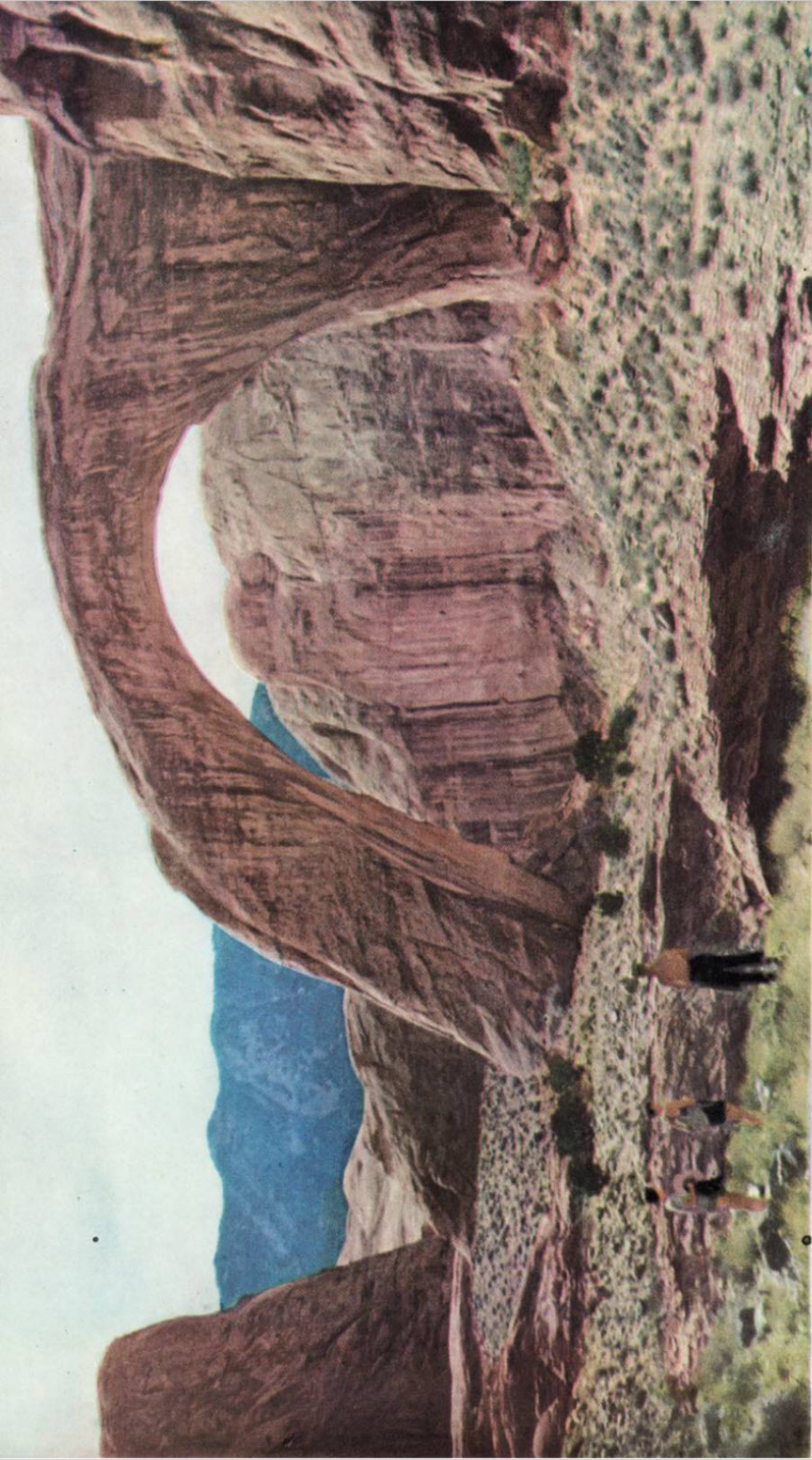


Kodachrome by Alfred M. Bailey and Fred G. Brandenburg

### Only Expert Boatmen Brave the Swift-running San Juan

Here a boat, on even keel, is poised for the dash through the rapids at left. Oarsman holds the bow upstream so that he may watch for submerged rocks and quickly pull the boat to one side or the other. The boat drifts with the current; oars are used to keep it out of trouble. A wrong move turns fun into disaster.





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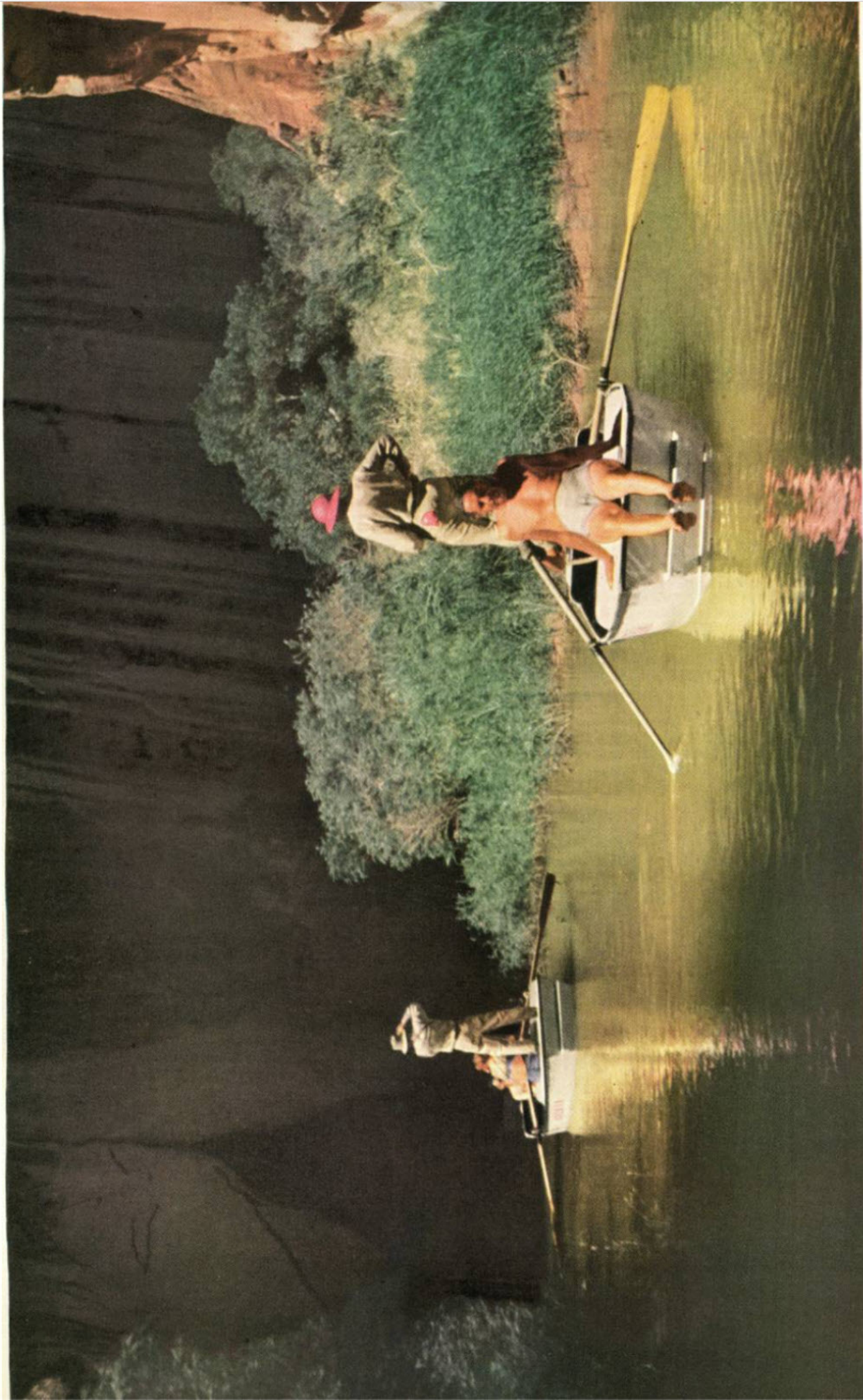
VI

Kodachrome by Alfred M. Bailey and Fred G. Brandenburg

**Deep in the Desert, Rainbow Bridge Rears Its Graceful Arch Skyward Like an Aurora Borealis Turned to Stone**

Over 300 feet high, the Navajos' sacred bridge could shelter the United States Capitol. The author's party left their boats and hiked overland to this Utah wonder.









### The Desert Agave Sends Up Flowers Like Tall, Feathery Javelins

A 15-foot stalk towers over Pat Bailey, the author's daughter. *Agave utahensis* and other relatives of the century plant yield valuable fiber and a juice from which pulque and mescal are made. The Bailey party reached this point on the Colorado River near Lees Ferry seven days after leaving Mexican Hat.



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### Pet Animals Take the Place of Toys for Navajo Youngsters

Riding his pony bareback, the boy (left) helps his elders tend sheep and goats in Monument Valley. A kid makes an ideal playmate. The girl's bracelet and buttons are of hand-wrought silver, as is the boy's belt buckle.