

Gregory Natural Bridge resurfaces as long-term drought hammers Lake Powell

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By Sean Golightly for The Arizona Daily Star

Glen Canyon is revealing itself.



David Brower, the first executive director of the Sierra Club and a three-time Nobel Peace Prize nominee, once said flooding Glen Canyon would be "America's most regretted environmental mistake." But almost 60 years after the fact, the full extent of that "mistake" remains mysterious.

Archaeologists and naturalists hastened to detail the canyon's contents even as the Glen Canyon Dam was under construction. By the time the waters of Lake Powell began to rise in 1963, their photos and notebooks

salvaged accounts of petroglyphs, natural bridges and extensive, pristine ecosystems in the Glen Canyon area. But their work was far from complete. They documented just enough to guess at the grand total of what would be drowned under Lake Powell. William Lipe, one of the leading archaeologists of this effort, reflected that “there was an awareness that a lot was being lost.”

Now, [long-term drought](#) has brought [water levels in Lake Powell to historic lows](#). As the shores recede, they unveil Glen Canyon’s lost wonders, allowing the consequences to resurface.

Gregory Natural Bridge is one such wonder. The 137-foot arch of Navajo sandstone spans Fiftymile Canyon and was fully submerged under Lake Powell when the reservoir filled in 1969. Last summer there were rumors that the lowering waters would soon reveal the arch, making it visible for the first time since [the river trips of Katie Lee](#).

In January, Flagstaff photographer and outdoor guide Eric Retterbush set out to investigate these rumors. He and fellow photographer Eric Hanson recruited two other friends to join them. They mapped a round-trip canyoneering route that would take them down one canyon and out another, past the location of Gregory Natural Bridge.

They began their expedition camped on the ridge above their point of entry.

“Our first night was absolutely miserable,” Retterbush said. The forecast for the overnight temperature was 27 degrees Fahrenheit, but he estimated that the mercury dipped lower than expected.

“When we got up, our five-gallon water carrier was frozen,” he said. “We were absolutely just struggling through the whole night. And knowing that we were going to be in a wet canyon the next day, we were pretty scared at that point.”

In the morning they descended into Willow Gulch and soon were met with a deep water slot canyon. The team inflated their rafts and began to ferry through the water, canyon walls too narrow for the use of oars.

“We were just grabbing the walls to scoot through,” Retterbush said.

On the other side of this deep water, they entered an area they had not expected, a no man’s land undescribed in any of the research they had

conducted.

“We didn't see any other footprints of anybody back there whatsoever,” Retterbush said. “There weren't even ravens around. There was no life, no bugs. No nothing.”

In this unvisited corridor, Retterbush and the crew found a natural amphitheater where they wanted to make camp, but it was almost too peaceful to get comfortable.

“This place was absolutely pristine,” Retterbush said. “It was just perfect sand up there. We felt bad putting our stuff down.”

They examined the ground closely, looking for signs of algae, cyanobacteria and fungi that make up cryptobiotic soil crust. Finding none, they decided their presence would do no harm and set up camp. But before they did, they traced out parcels for their tents, desiring to leave the ground mostly untouched, feeling it deserved the reverence of a sand painting made in meditation, a work of art.

The feeling that these canyons had been wholly untouched in something of a modern illusion, Retterbush said. Divots in the sandstone called Moki steps tell of the Ancestral Puebloans and other Indigenous peoples of the Southwest that frequented the canyon. They carved Moki steps to act as hand and foot holds so they could climb in and out of the steep canyon walls.

“They're kind of these ancient climbing routes,” he said, routes that continue to provide passage for those who navigate the canyons in modernity.

Still, even the Moki steps were not enough to shake the feeling that remote nature had embraced them only a day into their travel. Inaccessible to cattle and a difficult reach for bighorn sheep, the canyon fluoresced green with native grasses that terraced the sandy banks in warm microclimates. The temperatures swayed wildly over small losses and gains of elevation. Down by the water it was a full 15 degrees cooler than their camp, Retterbush said. Frost and snow stayed frozen in the shadows.

The next morning, the team rose early to make use of the cold. The miles ahead were laden with sediment -- and consequently, quicksand.

“And I wanted that stuff to be frozen,” Retterbush said.

Normally, the sticky clay of quicksand can suck the boots off a hiker and hold them waist deep if they’re not careful. But in gelid climes, quicksand freezes and becomes like crème brûlée, Retterbush said.



Boaters drift in the calm waters near Gregory Natural Bridge. Eric Hanson

“It’s got a crusty layer,” he said. “And if you scurry, you can get across.”

As they continued to descend into the canyon, the team soon came across artifacts left from the receding water — skeletal cottonwoods that would have been underwater only a few years prior, now left standing dead, frozen in the moment that the lake rose to meet them. Eventually they met the lake edge. A bathtub ring from the high water marked the canyon high above their head.

Again they inflated their rafts and paddled through the widening canyon to the place where Gregory Natural Bridge was said to be rising above the

water. The closer they got, the more Retterbush felt anxious, concerned that their travel would be for naught, that snowmelt would have inched the water up, kept the arch below the lake.

“We came around a corner, and it was more magnificent than I could have imagined,” Retterbush said. “It was honestly one of the most beautiful parts of canyon country I've ever seen.”

A 60-foot section of sandstone bridge had risen from the water, high enough to paddle under. Retterbush and his team piloted their rafts beneath the arch and marveled at its curving underbelly 20 feet overhead.

“I've seen tons and tons of arches over the years guiding in the southwest,” Retterbush said. “But I've never been that close, underneath this monstrosity. It was almost like flying through.”

Water awe

Awash in awe, the team laid back in their boats and drifted through the placid water. Water and sky reflected each other, made one blue body separated by a jagged rotunda of red sandstone. In the calm, Retterbush heard something he had never heard before. He was unable to identify the sound and pointed it out to his companions.

“We thought it was animals,” he said. “It almost sounded like little creatures in the rocks. Little squeaks and pops.” But whenever they would investigate the source of the sound, they found nothing but bare rock and canyon walls.

Eventually they put it together: They were hearing water leak from the exposed rock itself.

“Sandstone soaks up water like a sponge,” Retterbush said. “It was so saturated that the water was just finding its way out, air bubble by air bubble.”

This porosity of sandstone is well documented. It's become one of the leading arguments for “Fill Mead First,” initiatives that claim water could be spared in the current era of drought if Lake Mead was prioritized as the primary reservoir on the Colorado River.

In 2013 the Glen Canyon Institute commissioned a study to analyze water

lost to ground seepage through the sandstone of Glen Canyon. The conducting hydrologist estimated that 300,000 acre feet of water, an amount equivalent to entire water allotment for the state of Nevada, could be spared if water was stored in Lake Mead rather than in the porous sandstone of Glen Canyon. Subsequent studies have re-estimated these measurements to be closer to 50,000 acres, and while the exact number remains elusive, hydrologists agree that water from Lake Powell soaks into the surrounding sandstone and remains locked away for decades or longer.

For Retterbush, the opportunity to experience this phenomenon with his own senses was a humbling stroke of good fortune, one that could have easily been undone if the conditions had been anything less than perfect. "If there was wind, we wouldn't have heard it," he said.

It was also served as a dire reminder. The wonders of Glen Canyon, places like the Gregory Natural Bridge, will not wait forever under the waters of Lake Powell.

"When they become waterlogged these arches become very brittle," Retterbush said. "Being underwater for so long will ruin the integrity of one of these arches, these nice natural areas. It's going to accelerate erosion."

From the Gregory Natural Bridge, Retterbush and his team spent another day meandering up through more waterways, slot canyons and Moki steps to reconnect with the ridge where their journey began. It was an adventure, Retterbush reflected, but it's more than that.

"I like to teach respect rather than conquer," he said.



A cottonwood drowned by the waters of Lake Powell. Eric Retterbush

There was another arch Retterbush found during the trip — a small, delicate iron band about 3 feet across.

“It took hundreds of years for this rusty little thing to erode away,” he said. “And it could all be gone with one step.”

Or one misstep, one mistake, like the flooding of a canyon. The paradox of our natural wonders is that no matter how grand they seem, how impossibly small they make us feel, even sandstone is sensitive to human action.

In all likelihood, Lake Powell will continue to recede. The water will continue to fall and reveal the wonders that were drowned by previous generations. The full extent of our "mistake" will come into clearer focus, and as people like Retterbush rediscover what was lost, we will have to decide what might be gained by a different route forward.

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