Glen Canyon Dam and Colorado River, Arizona. Based on USGS photos by U.S. Geological Survey and the Interior's Lake Powell Water Operations Group (LPWO).

Kenny Brown

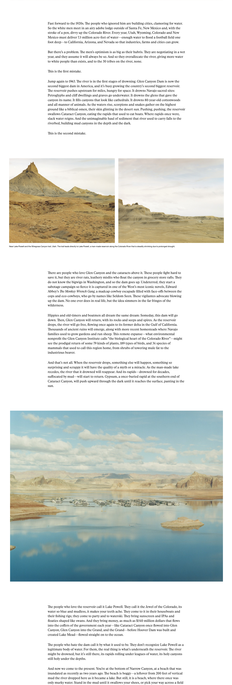
DECADES AFTER GLEN CANYON DAM, COLORADO RIVER RECLAIMS ITS PATH

BY ALEX
BOWDEN, KENNY BROWN
PHOTOGRAPHS BY TRENT DEE

SUMMING THE YEARS SINCE DRENCHING CANYON LAND THEY EXISTED FOR DECADES, NOW, THE WORK OF WATER SEEMS TO BE UNDERGOING A RESTORATION OF ITS OWN MAKING.

There is a place deep in Utah's canyon country that will tell you a story if you're patient. The spot in question lies in a gorge in the southeastern corner of Utah. Bordered by sandstone cliffs 2,000 feet high, it runs the Colorado River flood through this canyon, its pounding rapids carving a path through the Navajo sandstone and deposited the sand downstream. Nearby, John Wesley Powell's cartoonishly capsized, but intact – built Glen Canyon Dam. Nearby, too, is the place where the river's erosion backed upstream, drowning 26 rapids whole and transforming the canyon into a 186-mile-long reservoir. Lake Powell. Or, if you prefer, Lake Mead. It was certainly, once, the river's current slackening as it submitted to the dam.

Everyone ignored him.



Fast forward to the 1950s. The people who ignored him are building cities, clamoring for water. So the white-ness moon is an arty adobe lodge outside of Santa Fe, New Mexico and, with the dam, the Colorado River flows through this canyon. Lake Powell, the reservoir behind the dam, stretches almost 27 million acre-feet of water – enough water to flood a football field one foot deep – in California, Arizona, and Nevada so that industries, farms and cities can grow.

But there's a problem with the man's optimism is as big as their hubris. But our negotiating is a war year, and they assume it will always be so. And so they overallocate the river, giving more water to white people than exists, and to the 40 tribes on the river, none.

This is the first mistake.

Jump again to 1983. The river is in the first stages of drowning. Glen Canyon Dam is now the second biggest dam in America, and it's busy growing the country's second biggest reservoir. Lake Powell's shoreline stretches 1,960 miles, longer than the entire Pacific coastline of Hampshire and, still flooding, and spears go underwater. It drowns the glyph that gave the canyon its name. It drowns the cottonwoods that hold the cottontails. It drowns 40-year-old cottonwoods that hold the cottontails. It drowns the Anasazi ruins and the petroglyphs and the petroglyphs that depict the Anasazi ruins, and, then, it drowns the petroglyphs that depict the petroglyphs that depict the ancient ruins. Pushing, pushing, the reservoir swallows Canyon Country, cutting the rapids that used to cut boats. Where rapids once were, there are now flat, placid, unnaturally navigable bodies of water. Boats that used to carry kids to the riverbank bending back canyons to the depth and the dark.

This is the second mistake.

Top: Lake Powell and the Navajoan Canyon, left. Then, Tower Arch, a stone arch, and Landscape Arch, a stone arch. Bottom: Rock Fence, a stone fence, and Double Arch, a stone arch.

There are people who love Glen Canyon and the canyons above it. These people fight hard to save it, but they are over-ruled. Anybody worthy who fears the reservoir's rise and fall. They do not know the Navajos in Washington, and so the dam goes up. Undeterred, they start a campaign to drain the reservoir and restore the canyon. They are called the Glen Canyon Defenders. The Atlantic Monthly bring a nasty-but-catchy-enough-to-stick-with-you-for-decades-to-come-and-go-to-a-cowboy-who-gets-the-name-the-Sagebrush-Rebellion-Tony-Spiers-advocacy-blowing-up-the-dam. No one ever does to end life, but the idea simmers in the the fringes of the conversation.

Hippies and old timers and boaters all dream the same dream. Someday, this dam will go down. Then, Glen Canyon will empty, dirt to rocks, and sand, and water, and the canyons will be free. Some people, the hippies and the boaters, even, will live there. Tourists will come. Thousands of ancient ruins will emerge, along with more recent homesteads where Navajo families used to grow potatoes and run sheep. New canyon lagoons – what environmental impact statements call "riparian habitat" – will form. Beaver will return. Fish will return. Birds will take the geological tours at some. Thousands of plants, 300 types of bees, and 90 species of mammals that used to call this region home, from shrubs of sweetwing mule fat to the Indestructo-horse.

And that's not all. When the reservoir drops, something else will happen, something so unexpected that it will take people years to realize it. Years, in fact, that will be lost to the reservoir's rise, the river that is drowned with impunity. And its ripples – drowned in the lakes, suffocated by mud – will start to return. Gypsum, a stress-fractured capital in the southern end of Glen Canyon Dam, will pinch upward through the mud until it reaches the surface, jutting in the air.

The people who love the reservoir call it Lake Powell. They call it the Jewel of the Colorado. In winter blue and medium, it makes year-round sales. They come to it in their houseboats and their fishing tips; they come to party and to waterski. They bring sunscreen and IPSs and Jet Skis and Sea-Doos and Wave Runners. They come to the reservoir to drink beer. They come into the confluence of the pronounced-such-that—like-Cayman Canyon-was-flooded-into-Glen Canyon, Glen Canyon into the Grand, and the Grand—before Hoover Dam was built and created Lake Mead—forced straight out to the ocean.

The people who beat the dam call it by what it used to be. They don't recognize Lake Powell as a reservoir, or a lake, or a place. They call it the Colorado River. Sometimes, when they're high, they might be drowned. Not if it still there, they might stalling under-lungers of water, but the canyons will fully under the depths.

And now we come to the present. You're at the bottom of Narrow Canyon, at a beach that was inundated as recently as two years ago. The beach is boggy – a thirsty-from 200 feet of vertical water-sand that sucks at your sneakers and pulls them off. The water is cold, and it's dark, and it's mud-murky water. Based in the mud until it smallest-river-down, or pick your way across a field of boulders and stand on a rock at the edge of the water.

Either way, here are the facts. The river you are looking at is drying up. Already overallocated, climate change has since slowed the party and reduced the Colorado's flow by 20% since 2000, compared to average 20th century flows. Lake Powell, once filled to bearing with water, has let its water level drop 150 feet. The reservoir is now 50% full. The Colorado River, which has let down the turbines that generate electricity, that's bad dropping, the reservoir would now have reached what engineers call dead pool – where water could only flow through the outlet tubes, not through the turbines. Lake Mead, the reservoir that Hoover Dam created, would be reached behind the dam, with no way to get it to thirsty users downstream. Bad water would stagnate, warm and 60 with sediment, killing fish and leaving behind a moonscape. Less than a decade ago, Lake Mead was 95% full. Today, it's down 1961, causing its sister reservoir, Lake Mead – itself critically low – to dip dead pool, too.

The water bonesco who signed the Colorado Compact in 1922 created a massive system of public water works to ease settlement and juice growth. Now, 40 million people, untold plants and animals, and 12 million acres of the country's most critical farmland rely on these reservoirs. Powell, Glen and Hoover dams were to last – well, it's hard to find the proper word for that.

John Wesley Powell has words for it, though. "In twenty years," he told us when I asked him, "Imagine a train wreck."

Wesley's has the distinction of being the Colorado Bonesbosses' – a man tasked with defending the future of what environmental writer Marc Reisner called the most regulated, most abused, most fought-over river in the West. Wesley's job is to keep the Colorado River from the periodic crescendo – of being one of the more serious and critical critics of one the most artificially loved and reviled dams on the planet. In his capacity as river-keeper and co-founder of the Colorado River Keeper, Wesley has spent the last 20 years fighting the Colorado River Basin, of late about every CEO and federal official who has tried to lay claim to the Colorado. Or, Lake Powell sits dry, sheltering from the wind and waves in a cool rock-lined bowl, water-less and, in the words of Wesley, "a train wreck." Wesley's job is to keep the Colorado River from this end. So he spoke, he held up his phone, trying to get service to locate the results of his audio tests against a lithium operation.

I'm on this boat with Wesleyn as part of a patriotic project of my own. Along with my friend Abigail Kerr, I've decided to sail all 1,500 miles of the Colorado River to understand the water crisis and what, if anything, we can do about it. For the last six days, we've paddled and motored and bumped and bounced through the canyons of Glen Canyon Dam. Our boat, which can stand up 40 feet tall and snap the aluminum frames of lawn chairs like kindling. The trip happened in October – low water – but that didn't keep me from tossing all the way overboard. Wesley's boat, a 26-foot, 1,000-horsepower, 40-year-old aluminum-hulled-and-fiberglass-bodied jet-or-not-not-you-do-let-you-see-after, Gold-scented, the river-sized jet boat Wesley Dang's 2-to-maccasiner-current-doing-a-lot Lake Powell. After he made it through the drops on this trip, he said, he had to stop and pick up his wife, who had flown in to meet him. Her car, he said, had been the sound – a rush of water-to-rock. Now we sate in a rapid-lapped shore that we'd seen as he, in both heading impossible-seeming channels between giant boulders.

Wesleyn has owned this river hundreds of times. He could, he claimed, run its rapids in his sleep. But he'd never seen this rapid at this exo before. For decades, it's been submerged beneath the reservoir, its dangers a matter of lore and reminiscence.

"This is Cataract Rapid," Wesleyn said grabbly. "And we're gonna run it." Wesleyn hopped from the boat onto a rock and tied the bow line to a tree. Abigail and I jumped off and helped him the dress to ease our way. We faltered. We stood ankle-deep in the water and looked up at the strange new hybrid. Half old, half new.

If I'm honest, I was scared. In the 30 years on the river, Wesleyn had never done Cataract at this level. Looking at it, he admitted he didn't know how to read it yet. Nevertheless, he was ecstatic. "I've been waiting for this my whole life," he said, as we climbed back into the boat. "Get in the rubber bubble, I would've said you was crazy" he said. He retrieved his phone from a tree branch and he leaped ahead of dig. He snapped a photo. Twenty years ago this place was a lake. Not years ago, it would be. Today, a bagel-lunch and a living-rapid.

And then we were back on the boats. The water-rocked-our-yellow-tall-into-the-current, pulling us downstream toward the rapid. Wesleyn, in the front, hollered instructions. He hollered about the rocks that a stand of 80-foot cottonwood trees had come out of the water, dragging the sandy beach beneath them and turning it a lagoonal green.

But a year later, a heavy snowfall upstream caused the water to rise 40 feet. When Wesleyn came back to the reservoir the next year, the cottonwoods had been drowned. Looking out from the boat, he could see the tops of the trees, the ones that had survived, poking out of the water, also surrived to storm – but, he was downcast. "It was like someone had turned on the blight lights," he said. "It was a clarion call for me."

After that trip, Wesleyn was a man on a mission. He visited his local library and read every book on Lake Powell that he could find. Using a map of quarters, he copied out the specs for the dam and the reservoir and the rapids that the dam had drowned. He wanted to re-dream Sisyphus, where the water would run out, or the reservoir would fill with mud.

An one point between seen and dress, a once in many corrosive more could also let the region. Weisbrod took time out of his sandwich making to describe it to me. that day, with an atmospheric, river single-out over the Colorado Basin, unleashing a century's worth of water in a torrent. Lake Powell, the reservoir behind Glen Canyon Dam, is the second-biggest man-made reservoir - the equivalent of ten million bathtubs passing a person as they stroll over crest. When it hit Glen Canyon Dam, it could break the dam. Bonging it open like a door. After that, it would rush down the Colorado River, washing out everything in its path. Lake Mead, the reservoir nearer Vegas, would overflow before hitting Lake Mead. When it hit Lake Mead a mere 8 hours later, all hell would be off. A column of water 35 feet thick would cover the tip of Hoover Dam, sweeping an entire region out to sea along with millions of houses, refrigerators, pets, and automobiles.

Weisbrod, the crisis was close, but it wasn't accidental. "This is a human-made problem," he said. "We have a human-made solution." Weisbrod, who is a Mormon, quoted Ecclesiastes. He said, "And they've been doing it willfully." And now, he admitted, he was in a pickle. We needed to balance the West's water budget - so that the consequences "But if we couldn't do it then, before the infrastructure was built," he said, "how can we do it now?"

In his book Spoken, the writer Terry Tempt Dixon! Bells human fiction! down is a simple maxim. Water is life. Without it, we die. Dixon! Bells human fiction! down is a simple maxim. Water is life. Without it, we die. Dixon! Bells human fiction! down is a simple maxim. Water is life. Without it, we die. Dixon! Bells human fiction! down is a simple maxim. Water is life. Without it, we die. Dixon! Bells human fiction! down is a simple maxim. Water is life. Without it, what needs to be done to save the Colorado River and bring back Glen Canyon. We need to drain the reservoir, decommission the dam, and create a water policy that works with nature and not against it.

But he admitted that this was unlikely to happen. No one wants to give up the water they've gotten used to in the times, even if doing so would save their lives. Instead, angry and stuck, they power in their ways, driving their own downfall.

It's something that Weisbrod, surprisingly, can understand. All those years ago at the library, he had been angry at the Sierra Club for blocking the dam that would have flooded Glen Canyon, a major protected form. In the dam's wake, Vera, he drank a lot. He became impossible to work with, his anger explosive. His boss fired him from his job as a river guide, but, in an act of grace, Brower found him one year of health insurance to see the recovery.

When Weisbrod went to the hospital, he was in despair and near death. When he met with the Sierra Club board members who had banished him, they told him that they had been wrong and around the campfire one night. "She told me, *I think we're willing because you're angry. So what are you angry about?* And I go, *I don't like the world. I don't like the system.* And she just looks at me and says, Best little boy!"

That's exactly what Weisbrod did. It took 70 days at a treatment center for him to get sober, but he came out the other side ready to fight for the Colorado. He joined the board of several solution, joining them on their journey to document the ecological disaster on the Colorado. He viewed Cameron Canyon, and then he viewed it again. (He like to come back and look at it from different angles.) He saw the Colorado River, which had been reduced to a Rubbermaid and bureaucrat that he used to hold protection against. He founded Living River and funded it with an activist ice cream shop, naming his flavors after the renegades and conservationists who had come before him. He began to think of himself as the last caretaker of the river and how quickly, as he began to take photos of the same spots as the river rush year, comparing them to each other and noting down the changes in a notebook. He was doing everything he could to fight for the river But he couldn't shake the sense that he's come too late.

One day, helping two scientists document plant numbers from the river floor to the canyon rim, Weisbrod's old sense of despair flared up like the pain from a toothache. For even when you're too zoomed, down were down that were dead from thirst and heat. He turned to his friends and said that he feared. "We're looked, and we?" he said. They nodded. Yes, we were fucked.

Weisbrod believed they were doomed. But the river had turned his life, he said, and so he couldn't give up. He couldn't give up on the river. He couldn't give up on the Colorado. He couldn't give up on solutions. And he kept talking about, too. And that's when he noticed something strange. In 2012, a few miles past the bottom of Big Drop 3, something was happening. The reservoir was receding, the water was being released from the dam, and the river was back. It was a little trickle that wormhole(there was a mere Gypsum Rapid, buried for decades beneath Lake Powell, was crossing.

It took 10 years for the river to scour out the mud that had been left by the reservoir. And Weisbrod documented the whole thing. In 2016, he was approached by a man named Mike DeMaio who was barely interested in his photos.

DeMaio had grown up working around on the Colorado River, guiding boat trips and teaching people how to navigate the treacherous waters. He was a fixture in the Colorado River scene. So, he saw what everyone saw and thought what most people thought. In Narrow Canyon, below the Big Drops, shack reservoir water stretched from canyon wall to canyon wall. When the water receded, it left behind a mess. Trees and shrubs had grown up in the mud. The canyon within a canyon looked ruined of ruin. The ecosystem had been destroyed. The water was forever drowned.

But in 2011, on a trip down Cameron Canyon with his wife, Maji Flynn, the water had dropped so far that a beach appeared. DeMaio and Flynn camped on that beach, hoping the tents "We knew something was happening," he told me. "Something was very different on that trip".

In DeMaio's die job as a writer, he met Swanson who confirmed his hunch. As he fired their photos, Swanson explained that the Colorado River was in the process of a major flood. Every year, the reservoir, A basin of Southwest remote was starting rapidly up the canyon, cutting through the sediment as it went. "And I'd say to them, When is that every ship? And they'd say, Oh, it's a little bit of water coming down. And I'd say, Well, I'm going to take a photo of it. And they'd say, How you sure that's the stuff that just came out and above Marshall Canyon? And I'd say, No, I know!. And then you'd go down there, and you would be swearing, like, When did this ship come from?"

After their 2011 trip, he and Flynn bought a pre-reservoir guidebook, trying to understand what the canyon looked like before the dam was built. They began to see the ghosts of the canyon in some historic photos, they started taking trips with friends down the river, taking photos at the same sights again and again and entering the results into an ad-hoc spreadsheet where they put back to the front country.

What they found shocked them. The pictures they'd inherited from John Wesley Powell a changing river. But that change wasn't purely a bad. It was a wasteland, DeMaio says, the canyon recovered, a cliff of nutrients dredge left over from the sediment trapped beneath the reservoir. The Colorado River, DeMaio said, was a "Frankenstein" river, a river — a river of archive of damage done. But that wounds was showing something totally new.

Mike told me to think of Lake Powell "like a bathtub, and Glenn Canyon as the crazy part that you would lay your back against." In this metaphor, the Colorado River runs down the crazy part, the bathtub fills up, and the water stays there. But the water wasn't just sitting in Glenn Canyon Before Lake Powell, the reservoir came along. Water backed up, forcing the water up the bathtub, drowning both river and rapids. But now the reservoir was shrinking, receding, and the water was being released from the dam, and the river was back. Its footprints appeared, so deep that its old territory seeping a new plough, while bank of water back into a coursing river, narrower than the lake had been and moving much faster along its old track.

As the river moved through the canyonlands, it was carrying through hundreds of tons of sediment and washing it downstream. Whole canyons were coming out of the water like dead coked plants. In a matter of a few years, those canyons were recovering themselves. So, the river started to change. It started to carve out a new channel, a narrower channel, and the old canyonlands were emerging as well as river otters and herons and ravens. And there, beneath the Big Drops, Gypsum Rapid was shooting, birthing, Robson.

For decades, politicians have refused to take real action to protect the Colorado River and repair the damage done by the Glen Canyon Dam. Their mistakes have created a crisis, but the crisis, ironically, has created the conditions for a surprising ecological renaissance. Within Grand Canyon, the Colorado River is now a mere trickle, a fraction of what it was before the reservoir - Lake Powell kept dropping, back to a dropped, the river emerged Crawling and downstream, it wind about in traditional portrayle Sweetwater. But this time, it did its decades what it had been, and it began to carve out a new channel. It began to carve out a new channel. It began to put the rapids and conserve a clean slate and a cleaner, and - bumpy - then took it. The crazy part, DeMaio told me, is that "It didn't do it out of conscious management by any agency or anybody. It didn't because it had the opportunity."

If Weisbrod had archived the wasteland period, DeMaio and Flynn were documentarians of a comeback. The pair's first fledgling project Restoring Rapids But the rapids were just a corner of the bigger picture. A rapid like Gypsum was bounded by cliffs and sandstone. Beyond the rapids, there was a whole ecosystem. The river was bringing back the plants, the bugs, the river otters, it flushes out the cottonwoods, allowing plants and animals to return to their everything humans, and occasions the rabbits and bats and coyotes crawled for scarce dole. "It's a huge way of showing people things can move in a positive direction, that things are able to remove."

As word spread, DeMaio's tips were from all two Hoover affects to fully equipped scientific endeavors. Indistinctnaplain studied how quickly the river was clearing sediment from Cameron Canyon. Others studied how the canyon was growing back, how quickly the plants were growing back and how quickly the bugs and the same thing. "We also had all these incredible smart folks," DeMaio said. "And they were like, *I'm shocked this stuff big which life and I've never seen things change so much.* I'm seeing changes before my eyes and I cannot believe it!"

But for DeMaio, the story doesn't stop there. Because the many left about rapids or canyons or even the Colorado River, he said, "I'm, I'm, I'm,

Keep Reading

Atmos is a nonprofit media organization focused on the cross-pollination of climate and culture, delivering award-winning journalism and creative storytelling through a print magazine, digital features, newsletters, podcast, and more.

Our mission is to re-enchant people with nature. We inspire cultural transformation by illuminating human impact on the planet, the intelligence of the natural world, and solutions to heal and protect it.

Read Our Stories
Shop Our Magazine
Subscribe to Our Newsletters
Meet Our Contributors
Support Us

connect@atmos.earth
Follow Us on Instagram
Follow Us on Threads
Follow Us on Bluesky

Atmos uses cookies to personalize your experience. By accepting, you agree to our use of cookies. Accept →