



*A speedboat traces the old curves of Utah's Reflection Canyon, a branch of Glen Canyon. Both were flooded by Lake Powell after the Colorado River was dammed in 1963. In recent years scant snowfall has caused the lake to drop more than 100 feet, exposing a white ring left by high water.*





# A Dry Red Season

Drought drains Lake Powell—  
uncovering the glory  
of Glen Canyon.



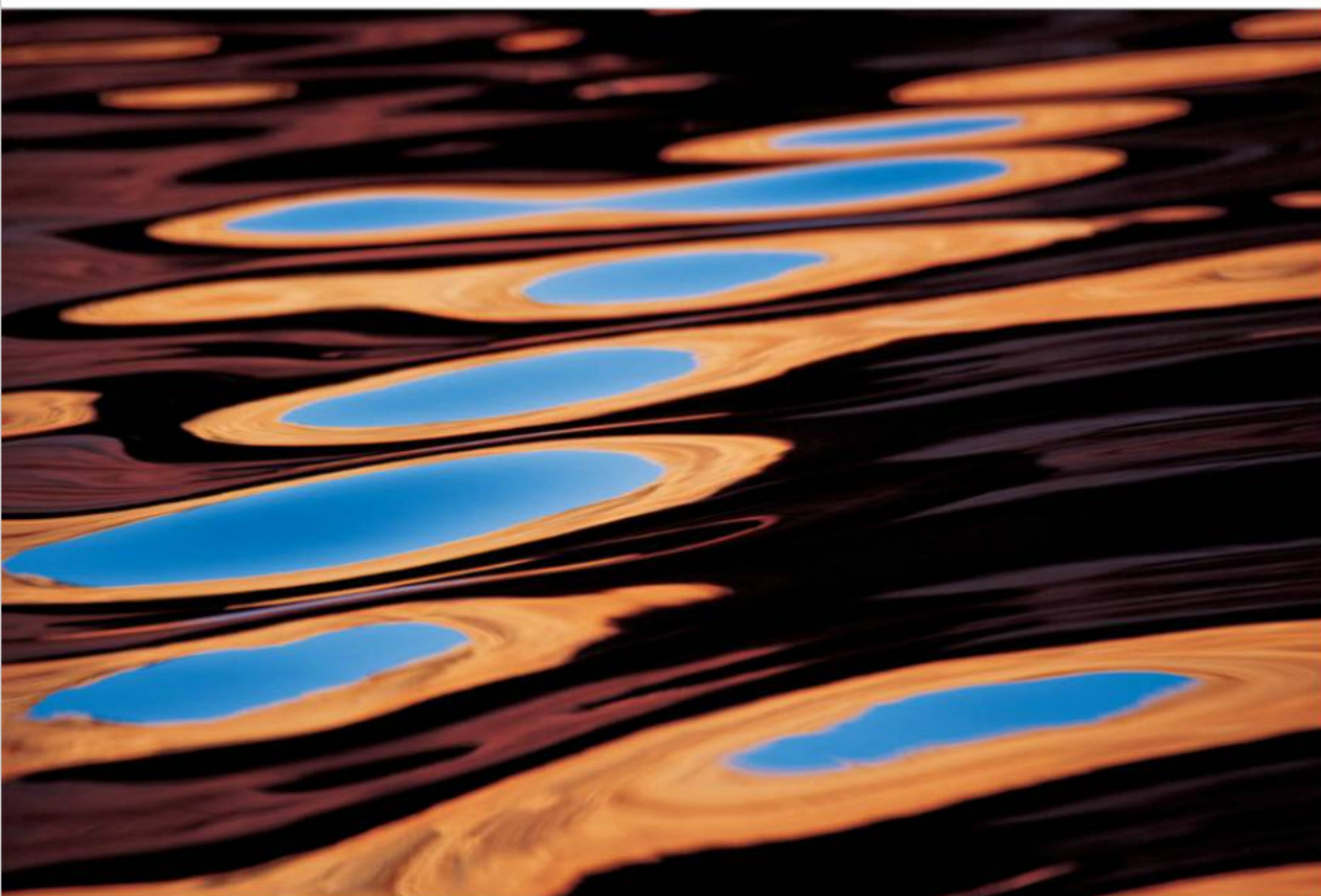
*The ghostly arms of cottonwoods emerge from Halls Creek Bay (left), and water again spills through*

*Cathedral in the Desert, uncovered as Lake Powell hit its lowest point since 1969.*





Desert varnishes streaked the sheer walls  
and soon began painting over the lake-  
bleached bathtub ring left by high water.



*The elements texture formations along the shrinking lake (clockwise from above): Receding water left a rippled sand dune near Clear Creek off the Escalante River. On Tapestry Wall at Warm Springs Canyon, iron and manganese from windblown dust created a patina called desert varnish. Reflections of red rock and azure sky pattern the flow in Willow Creek. And a triangular flake of weathered rock as wide as a billboard makes its mark on a canyon wall along Fiftymile Creek.*





BY DANIEL GLICK  
PHOTOGRAPHS BY MICHAEL MELFORD

A year ago Lake Powell reached its lowest level since Jimi Hendrix played Woodstock and Neil Armstrong made his giant leap onto the moon. A sustained drought had sucked out two-thirds of its water, exposing 140 vertical feet of once drowned cliffs. The dry spell temporarily turned the great reservoir back into a red-rock

maze called Glen Canyon, stirring hopes that terrain whose grandeur rivals any on Earth may one day be revealed for good.

It also resurrected Tom McCourt's childhood. McCourt holds forth on a newly exposed rock outcrop near the shrunken lake and reminisces about what was here 40 years ago: two small settlements flanking a vast floodplain cleaved by the Colorado River's milk-chocolate waters and guarded by fortress cliffs. His grandparents lived on this east side, in the town of White Canyon, before it was slowly inundated by the reservoir.

As a kid, he'd come regularly to visit, and he recalls the country as harsh and bountiful. "My grandfather told me it got so hot down here that the ravens left contrails because their feathers were smoking," McCourt says, a storyteller's glint in his eye. "The soil was so rich we couldn't grow watermelons, because the vines would grow so fast they'd drag the melons across the garden and wear them out before they could ripen."

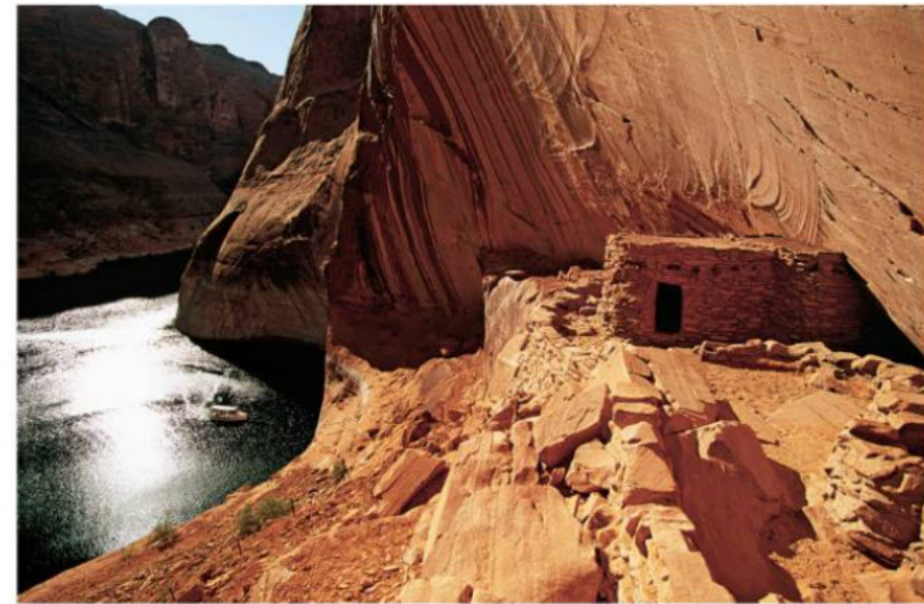
On this early spring day, visitors representing

three generations of two families with ties to White Canyon gather and bear witness to its unveiling. The water hasn't dropped enough to reveal the old landing strip or the site of McCourt's grandparents' house, but it's fallen more than enough to stir personal and collective memories.

McCourt's entourage includes his cousin Janis York, who lived here with her parents until she was five. York shyly approaches, moved to tears by swirling childhood memories. She used to sit on a hill behind her grandparents' house and pretend she was queen of the land. "There were rocks that sparkled," she recalls—bits of glittering fool's gold. "I used to call them my little jewels." After her family left and the waters rose, she says, "I was brokenhearted."

York gazes out over the canyon and the years. "This is the heart of the whole world," she says. "I remember telling my jewels I'd be back some day."

After Glen Canyon Dam closed its gates on the Colorado River near Page, Arizona, in 1963, the river's cargo of snowmelt and spring rain,



1994



2005

*Ruins as benchmark: In 1994 winter snowmelt kept Lake Powell at the doorstep of Defiance House, a 13th-century shelter built by the Anasazi people. They eventually abandoned the area, perhaps during a long dry spell. Drought has once again left the same shore high and dry.*

gathered from much of the mountain West, hit the dam's concrete stopper and began to back up. The rising waters slowly transformed the lower reaches of the intricate, thousand-hued Glen Canyon into a monolithic blue-green reservoir, the country's second largest after Lake Mead, farther down the Colorado.

Aided by Lake Powell's aqueous bounty, Little League fields sprouted in Las Vegas, subdivisions multiplied in Los Angeles, golf courses carpeted Phoenix. As the reservoir waters rose, Glen Canyon drowned. This remote heart of the Colorado

Plateau, dubbed "the place no one knew" in photographer Eliot Porter's ode to this lost landscape, gurgled underwater.

In unknown Glen Canyon's stead emerged the enormously popular Glen Canyon National Recreation Area—which quickly became a mecca for millions of houseboaters, water-skiers, and striped bass fishermen taking advantage of this watery miracle in the desert.

Then came the sustained drought that ushered in the 21st century, one of the region's periodic dry spells. For five years clouds yielded little





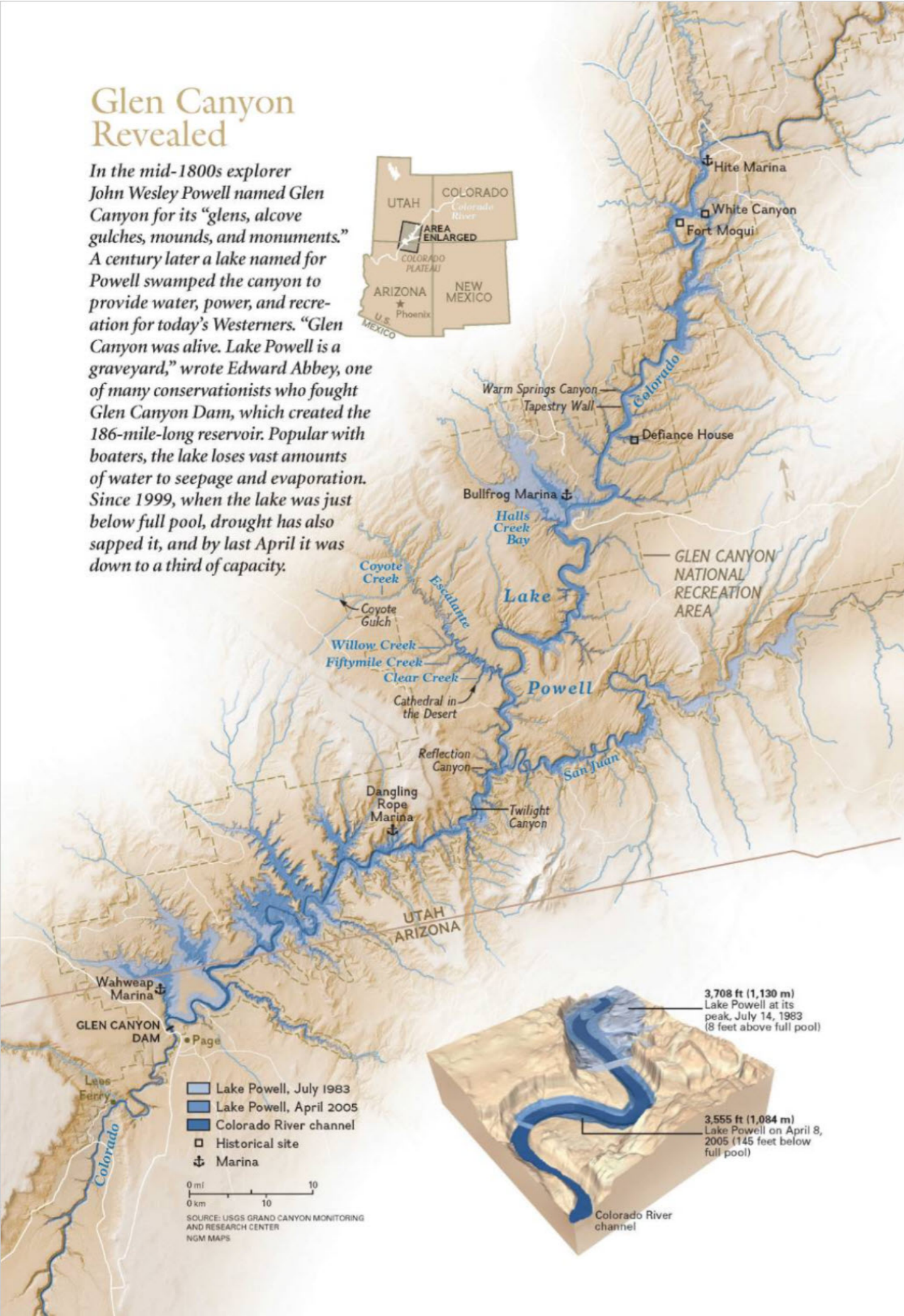
*Half full or half empty? Some conservationists want Lake Powell to be completely drained, allowing*

*plants and wildlife to thrive throughout a restored Glen Canyon.*



# Glen Canyon Revealed

In the mid-1800s explorer John Wesley Powell named Glen Canyon for its “glens, alcove gulches, mounds, and monuments.” A century later a lake named for Powell swamped the canyon to provide water, power, and recreation for today’s Westerners. “Glen Canyon was alive. Lake Powell is a graveyard,” wrote Edward Abbey, one of many conservationists who fought Glen Canyon Dam, which created the 186-mile-long reservoir. Popular with boaters, the lake loses vast amounts of water to seepage and evaporation. Since 1999, when the lake was just below full pool, drought has also sapped it, and by last April it was down to a third of capacity.



moisture, even as the West continued to drink greedily. The Colorado River, lifeblood for seven states, dwindled. Lake Mead and Lake Powell, the river’s massive catch basins, shriveled. No amount of hydro-engineering, cloud seeding, flow regulating, or other manipulation could change a simple fact: Not enough water was falling from the sky to keep the West’s reservoirs full. Not with the increasing number of straws sucking upstream water to irrigate alfalfa fields, fill swimming pools, and sprinkle suburban bluegrass expanses.

Lake Powell’s loss was and is Glen Canyon’s unmistakable gain. People who were lucky enough to get a glimpse of Glen Canyon when they were young flocked to see it again, as if offered the chance to visit, after 40 years, a first love who had abruptly moved away. People who had only known the canyon through photos and descriptions—by John Wesley Powell, Wallace Stegner, Katie Lee, Eliot Porter, David Brower, and Edward Abbey—hurried for a first look.

The ancient Navajo sandstone itself shook off the water as easily as a dog emerging from a swimming pool. At an average rate of an inch a day, a lost sculpture garden of rock resurfaced, miraculously intact.

The uncovered slickrock sandstone told its astounding life story: of Sahara-size sand dunes marching across the landscape 190 million years ago; of three-toed dinosaurs that left tracks in

*Exposed in March 2005, Fort Moqui, a 12th-century Anasazi ruin, was soon submerged again by the highest spring runoff in five years. If this year is dry, the ruin may reappear.*

damp spots between the dunes; of deep burial that slowly squeezed sand and mud into rock; of epic uplifts and tectonic shifts; of water and wind that carved slot canyons hundreds of feet deep.

Layers of human history saw the light again too: thousand-year-old petroglyph panels and cave dwellings of the Anasazi; artifacts from Navajo settlements; inscriptions left by 19th-century Mormon pioneers; equipment from uranium miners’ camps of the 1950s; sunken boats and even a lost airplane of more recent vintage.

Desert varnishes, mineral-rich dust transformed by microbes and moisture, soon streaked the canyon walls. Vermilion, rust, beige, taupe, slate, maroon, cocoa, coffee, pale orange, and peach, they began painting over the lake-bleached bathtub ring left by high water. Streams rippled anew in the side canyons that branch out like arteries from the main stem of the Colorado to distribute life—maidenhair ferns and coyote willow, soft-stem bulrushes and golden sedges—in this arid land.

There was little soul-searching when Congress voted to euthanize this hidden world back in 1956, when Ike was President, the country was





*Two-toned cliffs near Clear Creek canyon along the Escalante River—a major tributary of Lake Powell—*

*display pale calcite deposits left by water that once lapped the rock.*



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poised to pave interstates coast-to-coast, and Sputnik was but a year away. Today, the fall of the lake has driven a rising debate about its future. Many scientists think Western droughts will intensify as the Earth's climate warms. Water will become even more precious—and reservoirs, which lose vast amounts through evaporation, will seem intolerably wasteful. Better, say many environmentalists, to exploit new technologies for storing water underground, decommission the dam, and let Lake Powell once again be Glen Canyon.

There's little chance of that for now. Lake Powell, however diminished, plays too important a role in the West's water supply, and its removal would mean rewriting complex water laws at a time of massive population growth. But even though slightly above-average runoff in the spring of 2005 raised the lake 53 feet from that year's historic lows, managers expect it to drop again, to perhaps 108 feet below full pool by this month. Another sustained dry spell would push the lake to new lows. And in the very long run, nature will defeat the dam. Over the centuries, Lake Powell will ultimately fill up with silt.

“Let me get a little less disoriented here,” says Bill Wolverton as he scrambles up a slickrock tower to gaze into Twilight Canyon. Wolverton, 57, has roamed this Glen Canyon backcountry for a quarter century, first as a furloughed railroad worker with time on his hands and a love of the desert, and for the past 18 years as a seasonal backcountry ranger and an ardent advocate for the canyon. On his days off he walks me up and down a half dozen remote canyons, observing what the reservoir wrought and the drought incrementally reversed.

In the lower reaches of each canyon, by the lake, we sink into giant pillows of sediment, deposited over the decades since high water flooded the canyon and stripped the banks of life. Wolverton calls this vegetation-free carpet of stinking mud the “death zone.” At one point I am in it up to my

knees and elbows when solid-looking ground turns out to be quicksand.

Here gnarled gray hundred-year-old cottonwood branches beckon like skeletal hands from the mud. Detritus from boating trips—an anchor, the handle from a water-ski towrope, a swim fin—rests forlorn in the sandbars. Fishing line trails from broken rods tangled in driftwood.

The reservoir's drop of 140 feet, stretched over the gentle gradient of a side canyon, can mean that two or three miles of terrain have been slowly unveiled over the past six years. By last spring more than 100 square miles of canyons had seen air for the first time in decades. We slither up one of Twilight Canyon's tributaries, a magnificent narrow slot that requires gymnastic moves to explore. Seeing it for the first time delights Wolverton, and he doesn't hide his desire that the waters keep receding. “It's knowing that places this special are underwater that makes me want the reservoir gone,” he says.

The farther we hike from Lake Powell, the more signs of life reappear. Less than half a mile from the water, frontier willow colonies and tiny reeds clothe the banks, along with a host of invasive species. Tamarisk, tumbleweeds, and cheatgrass, all aliens, have seized an unnatural advantage, battling with the natives for the new territory. Farther upstream, spring floods since the lake receded have blasted a channel into the sediment, uncovering the bedrock and exposing swirling patterns on the sandstone canvas.

A mile or so up from the reservoir's edge, the canyon feels like it is breathing again. The descending plaintive warble of canyon wrens, which Wolverton describes as the “call you can hardly forget,” echoes off salmon-hued walls. Six-foot cottonwood saplings with fresh, electric green leaves sprout in the shadow of drowned, hulking snags. Cattails, horsetails, and black willows are revegetating the stream banks. On benches above the streambed, yellow and pink blooms of prickly pear cactus herald the spring. Gardens of monkey flower and cave primrose



take tenuous hold in aired-out alcoves wet from seeps. Gambel oaks and box elders cluster above the high-water mark. We are struck by wafts of desert flower perfume, of sage aroma awakened by the sun, of moist sand and earthy oak and fleshy cottonwood bark.

“This dam won't work forever,” Wolverton says, and he shows me why. We hike to the confluence of Coyote Creek and the Escalante River, a tributary of the Colorado. Where the clear water washing down Coyote Gulch meets the pea green water of the Escalante, we stare at a steady underwater parade of pebbles, sand, and silt moving downstream. “Building a dam across sediment-laden rivers is like driving your car without ever changing the oil filter,” he says. Sooner or later the marching sediment will have its day. “There's the answer right there,” he says, pointing to the gravel on the march. “It's inexorable. This is the land of erosion.”

Perhaps it all comes down to this place: a waterfall in a most unlikely location, a hidden cavern of mystical proportions aptly called Cathedral in the Desert. I arrive here alone by boat, following a sinewy side canyon, new desert varnish on its steep walls and the chalky white bathtub ring nearly gone. The water is green, deep, still. The walls close in, the canyon narrows. Rounding one last turn, I eye

*Near Bullfrog Marina, a runabout that may have caught fire and sank lies marooned on the dry lake bed. Nearly two million annual visitors, mostly boaters, still flock to the shrunken lake.*

a beach, cut the motor, and glide silently to shore.

Ahead, the canyon walls curve, rising hundreds of feet above me, overhanging to form a giant cavern, once drowned by Lake Powell. The waterfall drops 50 feet, bounding, bouncing, pulsing. It has left a splash of dark green on the wall. Water was at work here long before the dam and the reservoir, wearing a notch in the rock that now guides the stream the way a halved section of bamboo pipe funnels water in a Japanese garden. The cascade sounds eerily like the low murmur of a room full of people. Three hundred feet above, an opening frames a boomerang-shaped sliver of sky.

As I write this, the waters have risen again and put the waterfall at least temporarily back in the bottle. Somewhere, though, a canyon wren still warbles its haunting song. The warm desert wind rushes over the slickrock. Pebbles march toward the sea. And Glen Canyon abides. □

**Red Rock Country** Download the glories of Glen Canyon to your desktop, view a photo gallery with pointers from photographer Michael Melford, and get travel tips at [ngm.com/0604](http://ngm.com/0604).