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# DOWN BY THE RIVER

*A riverbank restoration revives a desert city*

ALTHOUGH YOU WOULDN'T have known it as recently as ten years ago, the Sonoran Desert city of Yuma, Arizona, is a river town. Located near the junction of California, Arizona, and Mexico, this kiln-dry city of ninety thousand people and 3 billion heads of lettuce has always owed its existence to the Colorado River. It was here in 1849 that thousands of Gold Rushers arrived at Yuma Crossing, where two granite ledges funneled the powerful Colorado River through a deep narrows that made for the easiest ferry crossing in the Southwest. The native Quechan enjoyed a brief monopoly ferrying settlers across the Colorado until the U.S. Army established Fort Yuma in 1850, ostensibly to protect the river crossing. Regular skirmishes between the Quechan and the newcomers followed. Soon enough, more than

a few Quechan were dead, and the river crossing was firmly in the hands of the United States. The Quechan were relegated to the Fort Yuma Indian Reservation on the west bank, while the city of Yuma grew up on the east bank, welcoming riverboats that steamed up from the Gulf of California laden with settlers and supplies.

To picture the Colorado River back then, one needs plenty of imagination, because the current river in no way resembles the historical one. Before the coming of the dams, the Colorado was an unruly god of creation and destruction. Fed by Rocky Mountain snowmelt, it would swell to forty times its size each spring, inundating the floodplain and forming one of the world's largest deltas, which ran from Yuma to the Gulf of California, a hundred



Restored riverbanks replace what was an overgrown no man's land along the Colorado River. The Fort Yuma Indian Reservation is to the left of the Ocean-to-Ocean Bridge.

miles south. The floods were the lifeblood of this bone-dry corner of the country. Verdant gallery forests of willow and cottonwood etched the riverbanks, and thick mesquite groves filled the floodplains. The trees evolved to survive on one big dose of water per year by drilling their roots deep to reach the groundwater. Cattails and bulrushes thrived in the meanders and backchannels, making the region the unlikeliest of ecological jewels. Nearly four hundred species of birds used the desert wetlands. Beaver, deer, and pumas slipped through the cool, green pools.

As did the Quechan. They fished and hunted year-round, made their houses from willow withes, cooked mesquite-flour tortillas over mesquite fires, and waited until the floods receded each spring to plant their crops in the still-damp earth.

That way of life didn't work for the sedentary settlers, who in 1936 were only too happy to see Hoover Dam shackle the beast that had eaten their homes and farms one time too many. More dams and canals followed, and the Southwest's great boom was on. By the time the Lake Powell Reservoir, about seven hundred miles upriver on the Arizona-Colorado border, filled in 1980, 90 percent of the river's water was being diverted to farms, as well as cities as far away as Denver and Los Angeles, before it reached

Yuma. The mighty river had become an obedient stream that never left its banks, let alone overflowed into what had been desert wetlands. Deprived of their annual dose of river water, the willow, cottonwood, and mesquite trees died. The marshes withered. And the birds disappeared. The Pacific Flyway, which stretches from British Columbia to South America, became a shadow of its former self. The Quechan found themselves on a barren reservation.

One of the few plants that flourished in the arid and saline soils of the unwatered Lower Colorado floodplain was *Tamarix ramosissima*, the tamarisk or saltcedar, which looks like a ratty pine tree and forms tangled stands a few yards high. The tamarisk—described in both the Bible and Koran, and a native of the deserts of North Africa and the Eastern Mediterranean—was planted by the millions during the Dust Bowl to fight soil erosion. With little competition from native plants, it soon swarmed across the West, and now infests more than 3 million acres, including almost the entire Colorado River corridor.

Few areas were hit harder than Yuma, and the calamity went beyond the tremendous loss of biodiversity. In 1999, community developer Charlie Flynn took the helm of the Yuma Crossing National Heritage Area, which is part of the National Park



Two crew members discuss options for the management of invasive species along the banks of the Colorado River.

Service's program to foster community-driven stewardship of important natural or cultural landscapes. His task was to bring the riverfront back to life, but he found the area so overgrown with invasive tamarisk thickets that no one could get near the water, and in the few places where people could, they didn't dare because of drug smugglers who used the abandoned waterway as a thoroughfare. "Once all the non-native vegetation grew up, it was the perfect breeding ground for drug traffic, meth labs, hobo camps, trash dumps," Flynn explained to me. "You name it, it was down there. It was a no man's land. People just didn't go to the river. They were afraid to. Even the police hated going down there. You couldn't see two feet ahead of you."

Along with the riverfront, the historic downtown had withered. And with the two sides of the river in a cold war of sorts, the only direct connection between downtown Yuma and the Quechan reservation—the Ocean-to-Ocean Bridge—had been allowed to fall into ruin. The 1915 masterpiece was declared structurally deficient in 1988, and there had been no attempts to repair it. Yuma soon forgot about its river and its history, and became a sprawling land of industrial lettuce farms fueled by migrant labor.

A practitioner of Eastern medicine might have diagnosed a chi blockage. The energy of the river was what had always held the system together. The tamarisk and the drug trade were the diseases that had taken hold in the resulting imbalance; the severing of community and the loss of identity were some of the symptoms. But with every drop of the Colorado River already claimed, and the Southwest projected to have 20 million additional people and even hotter temperatures in the coming decades, the river was unlikely to ever again have a surplus of water. Faced with these realities, the city shrugged and turned its back on its benefactor.

**CHARLIE FLYNN** saw the upside of a restored waterfront, but

he thought the odds of success were slim. "I wondered if it was really possible," he admitted to me. "The physical and stakeholder challenges were so great." The land-ownership issues were even more tangled than the tamarisk: sixteen different entities owned land along the river, including the Quechan, the city of Yuma, local farmers, and the states of California and Arizona. And they would all have to work with the Bureau of Reclamation, which manages infrastructure on the Colorado River. "The Quechan didn't trust us. The farmers didn't trust us. You couldn't ask for a mix more hostile to the federal government."

Although the city and the tribe were not on speaking terms, Flynn knew nothing could proceed without the cooperation of the Quechan, so he took it upon himself to start attending the monthly tribal council meetings. "I thought, okay, is this going to be a transaction or a relationship? What most people don't understand is that if you start off trying to do a transaction with a Native American tribe, you're dead. You'd better establish a relationship, establish trust, and then go forward." At the first meeting he attended, he received a litany of injustices visited upon the tribe. "It was a monologue, going all the way back." But the monologue slowly turned into dialogue, and eventually Flynn and the tribe found two things they both wanted to fix: the riverfront and the Ocean-to-Ocean Bridge. "We agreed that the bridge was more tangible and doable. It was a rallying cry. And it was also a physical and symbolic connection between the Quechan and the city." After long negotiations, they agreed to split the costs evenly.

On February 28, 2002, the Ocean-to-Ocean Bridge reopened in a spirited celebration. About eight hundred people turned out to watch the mayor and the Quechan tribal president drive across the bridge in antique cars, and the Quechan hosted the ceremony on their side of the river. "The bridge was the turning point," Quechan Economic Development Director Brian Golding told me. "Because of that collaboration, the two entities came together."

Two weeks after the bridge ceremony, another chasm was crossed when the Quechan tribal president called Charlie Flynn and proposed that they get to work on the riverfront. Flynn learned of a young landscape architect who had been living in Parker, Arizona, and restoring wetlands on the Colorado River Indian Reservation. So he drove about one hundred miles north of Yuma to visit.

The Colorado River Indian Reservation is a dusty moonscape of cactus and red rock. No trees, no grass. In summer, it cooks along at 110 degrees, and you can almost hear the crackle of creosote bush leaves frying in their oil. When Flynn arrived, a baby-faced man with a long ponytail introduced himself as Fred Phillips. Flynn found him to be practical and passionate about his work. "Although he had deep respect for Native Americans, he did not

romanticize them,” Flynn said. “He was willing to engage with tribal leaders, which can be both difficult and meaningful.”

Phillips took Flynn on a tour of his restoration work. They drove down a long dirt road through the reservation’s arid, beige lands, until they reached a riverbank. Flynn could hardly believe his eyes: hundreds of acres of green river marsh stretched before him. Two and a half miles of channels, fringed with rushes and waterfowl, flowed to the main stem of the Colorado. There were four miles of trails and a mesquite-filled park with a swimming area and boat ramp. Phillips assured Flynn that yes, the area had been just as tamarisk-clogged as Yuma when he started, and yes, what had happened here was replicable up and down the Lower Colorado.

**SIX YEARS EARLIER**, Fred Phillips had been a junior at Purdue University, getting his degree in landscape architecture. He had a fascination with the native cultures of the Midwest river valleys and a growing disillusionment with college. “What I was being taught was how to create these artificial landscapes, which was not what I thought landscape architecture should be. I thought it should be about working with the land instead of imposing our will on it.” When he learned through the grapevine that the Colorado River Indian Tribes wanted to restore their riverfront, he drove cross-country to the reservation to offer his services. An elder took him to a backwater that was filled in with tamarisk. The elder said, “I used to come down here with my dad, a sack of flour, and some bacon, and we’d hunt. There were

big cottonwoods, and the river flowed through them. Now it’s all gone. I’d really like to bring some of that back.”

Phillips had no idea where to start. “I knew how to put a plan together, and I knew how to draw and design landscapes, but that was for residential properties and shopping malls. Master planning a thousand acres of restoration? No idea. So I just started gathering information. I talked to everyone from tribal elders to the Bureau of Reclamation. What did this area used to be? What are the problems? What are your ideas? I got some aerial photos. I started hiking and canoeing the whole thing. I was sure I was going to die of a rattlesnake bite.”

Instead Phillips learned one of the key lessons for the Colorado River Basin. One often assumes that restoring natural landscapes is a long, gradual process, but the Colorado River ecosystem is different. Its native plants evolved amid annual disturbances, and they know how to move fast. Give them some free ground and a little bit of water, and they go for it. The natural communities of the Lower Colorado were degraded, but perhaps the gap between a desiccated system and a flourishing one could be bridged more easily than it seemed. Just find the water, reset the conditions, and let the system heal itself.

While camping in his Airstream and working seventy-hour weeks, Phillips devised and implemented a 250-page master plan. He reconnected an old meander to the river by dredging it, ripped out the tamarisk, and planted native species and kept them on drip irrigation until they could extend their roots to the water table.

The sun rises over a field of newly planted willow trees and salt grasses.





The Colorado River flows through a successfully restored portion of the Yuma East Wetlands.

Amazingly, when wet, the cottonwood roots grew an inch a day.

Phillips also mastered the delicate art of permit applications. In addition to the tribes and the state, he had to convince the Bureau of Reclamation, the Army Corp of Engineers, the U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs that this was a good idea. He learned to move between worlds.

By the time Charlie Flynn tracked down Phillips, he had restored 225 acres of wetlands along the river. His cottonwoods were thirty-five feet high. He had built parks and even started a nursery when he couldn't find a source of seedlings. The timing was perfect for Flynn and Yuma: Phillips had perfected his techniques and was itching to see what he could do on the rest of the river.

**FAST FORWARD TEN YEARS** to a halcyon winter evening in 2014. Fred Phillips and I carry two paddleboards down to Gateway Park, on the riverfront below the Ocean-to-Ocean Bridge, and launch ourselves up the Colorado River. From our watery vantage point, we can see riverbank trails full of bikers and birders. It's impossible to believe that this exact spot has been ground zero for various crimes against nature and humanity; the place is almost mundane in its pleasantness.

A few hundred yards upriver, we portage over the riverbank and slide our boards into a backchannel Fred has excavated. The sounds of people and roads fall away, and we find ourselves

in a sea of cattails. Ducks and white-faced ibis burst from the marsh as we paddle by. Egrets high-step in the shallows and turn orange-pink in the low sunlight.

Four hundred acres of the Yuma wetlands have been restored with native species so far; another thousand are planned for restoration. Bird diversity has doubled, and even the Yuma clapper rail, one of the most endangered birds in the Southwest, has returned to the Yuma marsh. Water was the key, but the city of Yuma had little to spare. Fortunately, wetlands in the Sonoran Desert are not choosy or proud. Phillips rerouted runoff from neighboring lettuce fields, and found another 325,000 gallons a day that the city of Yuma used to rinse the sand filters in its water-treatment plant. The wetlands drank it up.

In coming years, a garland of green is expected to sprout up and down the Lower Colorado, a beacon to birds and snowbirds alike—all part of a growing realization that, far from being antithetical, ecological and cultural restoration reinforce one another. In addition to the Yuma wetlands, Phillips is working on a thousand-acre restoration project a few miles upriver, and a smaller one downriver along the Mexican border. Phillips's counterparts in Mexico have several more projects in the works and are using the techniques he pioneered.

Returning to the main stem of the river, Phillips and I visit Sunrise Point Park on the Quechan side, where a medicine wheel and

ramada frame the summer solstice sunrise. Traditional Quechan herbs buzz with wild bees. Phillips picks a bundle of white sage, inhales deeply, and holds it to my nose. “Best kind for smudging,” he says. The usual camphor aromas are leavened with a lemony brightness like a brain tonic. In a nearby clearing in the willows sits the Elder Village, a cluster of wattle-and-daub huts around a fire pit.

“Our people are finding their way back to the river,” Brian Golding, of the Quechan tribe, later told me. “Culturally, spiritually, and physically, we’re more connected. That continues to manifest itself. Our Elder Village was built by the community. We have our weddings down there, and our Youth Cultural Festival was just held down there.”

Golding also sees potential economic development in the healthy wetlands. “We’ve got this veritable warehouse of material that can be used by elders and youth and middle-agers like myself for our cultural production needs. It’s not just pretty to look at and attractive to birds; it’s what we use for traditional structures, musical instruments, basketry, and artwork. We recently allowed a neighboring tribe to harvest some willow poles so they could make a sweat lodge. It feels good that we’re able to provide that resource to folks who otherwise wouldn’t be able to do it, or would have to use some other material that isn’t authentic. Before, you couldn’t get to it, or it was in such short supply that you didn’t dare take any.”

Yuma, too, has found its way back to the river. The adobe walls of the Yuma Territorial Prison, where many an outlaw did his time, rise on a bluff across the river. Farther down the waterfront is the Quartermaster Depot, where the riverboats used to unload. Both had been neglected state parks for years. In 2010, the cash-strapped state announced that it would be closing the parks, but the Yuma Crossing National Heritage Area raised \$70,000 from the local community in sixty days, and the city was able to lease the parks from the state. The Heritage Area has run them ever since, and the fundraiser is now an annual event. The Quartermaster Depot has become the city commons Yuma lacked. It hosts a new farmers’ market, running races, and the annual Lettuce Days Festival, and its displays celebrate the city’s historical and contemporary ties to the Colorado River. The prison, meanwhile, offers breathtaking views over the East Wetlands, with the silvery river snaking through and curling away into the desert.

The leafy oasis was the key draw for a new Hilton Garden Inn and conference center on the waterfront. The hotel promotes its location “on the banks of the majestic Colorado River in downtown Yuma, Arizona.” And the Yuma River Tubing shop recently opened its doors beside the wetlands as well. All of this would have been unfathomable not long ago. In 2014, the National Park Service published an evaluation of the impact of National Heritage Areas, and pulled no punches when describing the

Yuma of old. The Park Service called the waterfront a “blight,” and pointed out that the city had not been welcoming to the idea of bike or walking paths. “For decades,” it said, “this region struggled to gain a sense of identity.” Now, having rediscovered its river-town soul, Yuma’s identity seems solid. The Park Service estimates the annual economic impact of the restored waterfront at \$22.7 million, most of which comes through tourism. What it can’t put a number on is how different it feels to be a Yuman, or a Quechan, and to be able to point visitors to the river, instead of warning them to stay away for their own safety.

As I let the river lead me back into town, I think I can see a new kind of southwestern identity taking shape from the ruins of the old. On the overlook to my right is Fort Yuma. On the bank below, a Quechan man throws a stick into the river for his dog. As I coast beneath the Ocean-to-Ocean Bridge, I listen to the flow of people in both directions. I pass Gateway Park, where clusters of kids chitchat on the beach, soaking up the sun. American coots dodge my paddleboard and hustle upriver, tooting their tiny tin horns. Up ahead, the river turns a corner. A finger of wind ripples the surface, and cottonwoods shimmer in the breeze. 🦉

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## Owl

Let me look at you, fretsaw—  
you seem to cut a shadow-shape  
in every linden you light in.

You are beautiful—*beautiful?*—  
You are static, thetic, emphatic,  
Owl: the witchery that is wound

in you is subscription, it’s wishing  
that man might grow into your  
bearing, might be unwinding

without the slightest move—  
we made a totem. I keep your fey  
feather in a tall cloche. Owl,

you are inky, uncanny. In grasses  
you quarter and rend like mesh,  
the vole has accused you of music.

—Joseph Spece