

An aerial topographic map of a river basin, rendered in shades of blue and cyan. The river network is highlighted in a bright, glowing cyan, creating a central vertical axis that branches out into a complex web of smaller tributaries. The surrounding terrain is shown in darker blues and purples, indicating elevation changes. The overall aesthetic is clean and modern, with a focus on the natural waterways.

# High Country News

The greening of  
hydrogen

What constitutes  
poaching in Wyoming

An Indigenous view  
of environmental  
justice

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Willamette Falls in Portland, Oregon, is surrounded by industrial buildings like the former Blue Heron Paper Mill, seen on the right, just past the falls. Now, tribes are working to restore the falls and to open up public access.

**Sean Schlimgen/Resinated Lens**

# Know the West.

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**EDITOR'S NOTE**

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## A message from the coast

**I WANT TO TELL YOU ABOUT** the great blue heron. About the way it stands motionless, patiently, for long stretches of time, waiting for the perfect opportunity to snag a creature in its beak. I want to tell you about its posture, tall and upright, neck taut, head angled, as it surveys the landscape. And about how its neck curves like an S as it steps slowly on those three-toed feet, leaving a trail of prints that I think of as upside-down peace signs without the circles. I want to tell you about its wingspan when it first alights, how surprisingly wide and elegant it is. I want to tell you that one is standing, in real life, right now at the edge of a cliff looking out over the ocean as I stand beneath it, looking up. I'd say it's about 50 feet above me, facing southwest, legs straight, neck slightly crooked, wing feathers fluttering in the onshore breeze.

I often see herons hunting alongside other birds, including the great egret — almost as tall and similar in shape but not nearly so colorful, pure white with a yellow beak instead of the blues and grays, darker and lighter feathers worn by the great blue. Some pebbles and scree let loose and tumble down as the heron remains at the cliff edge, which has been undermined from below, the king tides of the full moon having just come and gone. Following these highest of high tides, you sometimes see newly eroded sections of the cliffs and bluffs, fresh deposits at their base, soon to be washed into the sea.

The king tides are harbingers of the future. They make sea-level rise tangible. Inch by inch, slide by slide, the continent's edge is being reshaped. Does the heron, so focused on feeding, know of the rising seas? Great blue herons typically eat fish, but they also forage in fields and eat frogs and snakes, even rodents. That makes the great blue resilient, adaptable. When I hear that birds evolved from dinosaurs, it's the great blue heron that I think about, with its scruffy bib and its spiky crown feathers. Who knows how ancient its ancestors are? What I do know, what holds my attention whenever I see one, is the admiration I have for the patience, the extreme focus, the grace and elegance of this bird. I wish those things for myself and my species. We come from the same source, some spark of energy ancient and wise beyond any of our lifetimes on this planet, with its rising seas and eroding cliffs and a human civilization well aware of what's happening, but not yet ready to adapt in ways that will matter. Even as we stare in wonder at the glory of nature, it's important to not lose sight of these things.

**Jennifer Sahn**, editor-in-chief

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FEATURES

# Salmon in Troubled Waters

26

How the collapse of the Cypress Island salmon farms reshaped the landscape of Northwest aquaculture.

BY DOUGLAS FRANTZ AND CATHERINE COLLINS  
ILLUSTRATIONS BY ALEX BOERSMA

# Permission to Poach

32

Three years ago, the Supreme Court upheld the Crow Tribe's off-reservation hunting rights. But treaty hunters in Wyoming still risk prosecution, even as non-Natives poach wildlife on tribal land with impunity.

BY SAVANNAH MAHER | ILLUSTRATIONS BY NEU TOKYO

ON THE COVER

An image of the Willamette River created using LiDAR data. "Human beings like to engineer rivers for various reasons. ... But this really gives you the sense that the river doesn't care. The river is going to go where it needs to go eventually, whether that be 100 years or 1,000 years from now — it's going to find a way to move." **Daniel Coe, Washington Geological Survey**

Some areas of Trainsong Park in West Eugene, Oregon, have been fenced off due to high dioxin levels in the soil (*facings*). The shuttered J.H. Baxter wood treatment facility is located next to the park.  
**Ayşe Gürsöz / HCN**

A billboard created by the artist Cannupa Hanska Luger was installed in Mandan, North Dakota, as part of @landback.art (*below*).  
**Justin Deegan / @landback.art**



# Chronic contamination

7

An Oregon community pushes to hold a wood treatment plant accountable for its toxic legacy.

BY KYLIE MOHR | PHOTOS BY AYŞE GÜRSÖZ



**Who owns Colorado’s riverbeds?** 9

How one court case regarding the Arkansas River could open several miles of recreation access.

BY BEN GOLDFARB

**Hydrogen hues** 12

Is this wonder fuel truly green — or just another fossil fuel in disguise?

FACTS & FIGURES

BY JONATHAN THOMPSON

**Fracture at the falls** 14

The West’s biggest waterfall has been inaccessible for a century. Efforts to restore it are tangled in painful colonial politics.

BY BRIAN OASTER



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**The beauty buried in the data** 16

Art created using laser data reveals the history and geological wonder of Washington’s landscape and rivers.

PHOTOS BY DANIEL COE

TEXT BY MICHAEL CROWE

**Hidden hazards** 19

Years after the deadliest landslide in U.S. history, Washington scouts for potential new slides with airplanes and lasers.

BY MICHAEL CROWE

**The Next Sky** 11

POEM BY SHERWIN BITSUI

**Environmental justice is only the beginning** 42

If the U.S. ever hopes to be in right relationship with the lands and waters it has seized, it must first restore its relationship with Indigenous peoples.

PERSPECTIVE

BY DINA GILIO-WHITAKER

**Plant becomes her** 45

Elvia Wilk dives deep into plant intelligence, speculative fiction, toxic waste, black holes and the future of humankind.

REVIEW BY

SEAN J. PATRICK CARNEY

**Recording the West** 46

Four new podcasts envision change in juvenile justice, energy and ranching.

REVIEW BY KYLIE MOHR

**Jinx bird** 48

In praise of the elusive, the mysterious and that which defies categorization.

TOWNSHIP AND RANGE

BY NINA McCONIGLEY

**#iamthewest** 52

Georgiana Kennedy Simpson, high school art teacher, Montezuma Creek, Utah

BY LUNA ANNA ARCHEY

**OTHER MATTER**

3 EDITOR’S NOTE

6 LETTERS

21 HCN COMMUNITY

24 DEAR FRIENDS

50 HEARD AROUND THE WEST

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## LETTERS

**High Country News is dedicated to independent journalism, informed debate and discourse in the public interest. We welcome letters through digital media and the post. Send us a letter, find us on social media, or email us at [editor@hcn.org](mailto:editor@hcn.org).**

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### REMARKABLE DESTRUCTION

Thank you very much for Emmet Gowin's remarkable illustration of the destructive damage to the Nevada Test Site by the U.S. government ("Man Looking Down Earth Looking Upward," June 2022). The amount of damage to the land is frightening. And also thanks so much for Terry Tempest Williams' profound and moving essay by a "downwinder." I loved her derivation of the term *pappekak*, but BS has never been more clear.

**Chuck Trost**  
**Pocatello, Idaho**

As a longtime supporter of HCN, I read your article ("Man Looking Down Earth Looking Upward," June 2022) and viewed the surreal images of the nuclear testing legacy with great enthusiasm. In my career, I was responsible for a few of the nuclear explosives that created these subsidence craters, including the last of them, Divider, referenced in the article. However, those craters were conflated with the plight of the downwinders exposed to radiation from atmospheric testing in the early days of the Cold War. The craters are the result of underground testing that all but ended that period in the

early '60s. These images support a narrative that ended a dark era, and Divider ended nuclear testing altogether in 1992 in the U.S. and in other countries as well during that time frame.

**Larry Witt**  
**Moab, Utah**

### KING OF ARTICLES

I think Ruxandra Guidi's piece ("The Lion King of Los Angeles," May 2022) about Miguel Ordeñana, feline celebrity P-22, Griffith Park, Los Angeles wildlife and so much more is one of my favorite *High Country News* stories of all time.

**Shawnté Salabert**  
**Los Angeles, California**

### RIDING HERD ON HEARD

I haven't been reading you much lately (just life stuff), but after happening upon Tiffany Midge's column yesterday (Heard Around the West), I'm back. Just renewed for two years lest I miss a single sentence she writes. She's a keeper.

**Billie Stanton**  
**Arvada, Colorado**

### BIGGER THINKING NEEDED

I read "Powell's looming power problem" (June 2022) and was disappointed that the article didn't go deeper into this crisis. More

investigation might open the door to revised management of the Colorado River Storage Project to help mitigate the drought.

Prioritizing power production was the primary way that Bureau of Reclamation Director Floyd Dominy justified the construction of Glen Canyon back in the 1950s and early 1960s. Big problems require big solutions. Solving today's problems and making these legacy water supply projects resilient will also require bold thinking.

**Robert Crifasi**  
**Boulder, Colorado**

### 'RARE' METALS

I was somewhat surprised to not see a bit more skepticism displayed in your story "Tellurium in the Klamath Mountains?" (June 2022).

Unfortunately, these sort of mining schemes have never really panned out economically, resulting primarily in long-lasting environmental scars. Anyone who has traveled in the backcountry West, including southern Oregon, can still witness the degraded landscapes from similar exploits during the 19th and early 20th centuries.

In addition, it failed to explain that the term "rare" for tellurium and its ilk is really a misnomer. While such elements occur in very low concentrations (and may therefore be difficult to process), they can be incredibly plentiful in the earth's crust. As the story correctly noted, tellurium can be readily and cheaply obtained as a byproduct of copper smelting. Better to obtain such "rare" elements as a consequence of existing mining, rather than encouraging new sites.

Thanks, by the way, for paying attention to our little corner of the West and for your incredible publication.

**Dan Thorndike**  
**Ashland, Oregon**

While rare metals may be vital to our society, the greed of the mining industry will poison our earth. I pray that southern Oregon will resist the mining and the pollution and destruction that their greed will produce.

The Earth is owned by no one; it belongs to everyone.

**Charles Martin**  
**Seattle, Washington**

### NO NOSTALGIA

We've watched *Yellowstone* and see this show differently than Liza Black's critique ("We don't share land here" May 2022).

First, the show portrays the Duttons as homesteading on the land and making it their own private kingdom. The show is clear that a good part of that land previously belonged to Indigenous people. Second, we see no heroes among the show's characters. Actually, many of them are despicable. It has brought us no nostalgia.

The show sends a strong message that if you have something worth having, there will be those who will try to take it away from you, and you will have to fight to keep it. It is a long-term history lesson worth remembering.

Black is correct that *Yellowstone* says America belongs to whoever can hold onto it. I would add the show also says it belongs to anyone who can take it from someone else by legal, non-legal and even violent means.

**John W. Thomas**  
**Fort Collins, Colorado**

### WISDOM FOR GRIEF

Ruxandra Guidi's essay was so eloquent, so true and so loving ("When the little owl vanishes" March 2022). It is a perfect expression of my own grief. I have two wonderful grandchildren I am grateful to have in my life, even as I grieve for them every day, knowing that they are going to witness horrible chaos and suffering as our species self-destructs. I was so grateful for Guidi's words of wisdom.

**Stephen Wilder**  
**Willow, New York**

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## CORRECTIONS

We credited the wrong person for a photo in our June Facts & Figures story, "Wildlife welfare check." The picture of the beaver was taken by Mary McDonald/NPL/Minden Pictures. We regret the error.

## Chronic contamination

An Oregon community pushes to hold a wood treatment plant accountable for its toxic legacy.

BY KYLIE MOHR | PHOTOS BY AYŞE GÜRSÖZ

**IT WAS 10:47 P.M.** when Arjorie Arberry-Baribeault got the phone call that changed her life. A doctor diagnosed her daughter, Zion, then 13, with Hodgkin's lymphoma. Two years later, the son of her best friend and neighbor was diagnosed with the same cancer. Once childhood pals, their kids were now teenagers with matching lumps on their necks. "Wait a damn minute," Arberry-Baribeault thought. "They've played in the same water, the same parks. ... What made our kids sick?" The teens' cancers joined a long list of ailments affecting residents of West Eugene, Oregon. And they thought they knew the culprit: a nearby wood treatment facility.

Step outside the door of a home near the J.H. Baxter plant, and until recently, you might feel smothered by a bag of mothballs or inhale the stench of putrid burnt oil. The source? A cocktail of chemicals used to preserve wood products like railroad ties and light poles. After decades of neighbors complaining about nausea, headaches, burning eyes, rashes and more, the plant abruptly stopped production on Jan. 31. The company blamed rising operating costs, market volatility and diminished margins.

The acrid smell is gone, but the pollution from chemicals billowing into the air and dripping into the water remains. Pentachlorophenol, or PCP, a highly toxic industrial wood preservative, leaked into groundwater. Dioxins, a group of toxic chemical compounds created during pentachlorophenol

production that can cause cancer, thyroid and reproductive problems, contaminated local yards.

The neighborhood and the facility need cleanup. But who is going to pay? Community members and local nonprofit Beyond Toxics want J.H. Baxter to foot the bill; the company claims it can't afford to. The ensuing fight shows how hard it is to hold polluters accountable. But the situation could change; the city of Eugene is considering how to keep something similar from ever happening again.

**A TWO-LANE ROAD**, a grassy ditch and a trickle of water are all that separate homes from the J.H. Baxter plant, which opened in 1943. The city of Eugene annexed the surrounding area 11 years later, zoning it as low-density residential. Today, West Eugene is home to 32 of the 33 manufacturers that handle hazardous substances in Eugene. Just over half of the residents within a 1-mile radius of the plant are considered low-income, a higher proportion than Eugene overall.

Residents say they didn't know that J.H. Baxter was spewing pollutants when they moved in, and they wonder why the city allowed homes to be built so close to it. "You stuck us in a corner in West Eugene and said, 'Well, that's the industrial area,'" Arberry-Baribeault, who lived there for 25 years, said. Some residents described a resulting pervasive fatalism: They'd call in air-quality complaints to the Lane Regional Air Protection Agency, nothing would change, and, for a long time, they gave up. "If this happened in the wealthy part of town, it would've changed in 1985 instead of now,"

said Mira Mason-Reader, who described a neighborhood full of young professionals, older residents and tree-planting efforts. "We have a really awesome community that deserves the same quality of life, regardless of how much money we make."

Decades of monitoring by the Oregon Department of Environmental Quality (DEQ), Oregon Health Authority and the Lane Regional Air Protection Agency detail polluted land, water and air. The agencies, Oregon State University and the city of Eugene created a rap sheet that lists multiple offenses starting in the mid-1980s and continuing through 2021: violated waste-discharge limits, disobeyed air permit terms and improperly handled hazardous waste. The DEQ designated J.H. Baxter a "significant noncomplier" — meaning the company repeatedly exposed people and the

Zion Arberry-Baribeault and her mother, Arjorie, who used to live in West Eugene, Oregon, stand for a portrait near their current home in Portland.



environment to hazardous waste — in 2011. In 2021, the agency found that residential yards just north of the facility contain two to 24 times more dioxin than the acceptable limit. (Georgia Baxter, the company's owner, did not return repeated requests for comment.)

While state health officials note that their health-assessment analyses can't determine what caused cancers in West Eugene, residents like Arberry-Baribeault believe there's a connection between the dogs, kids and adults who have gotten sick and the toxic chemicals surrounding them. The Oregon Health Authority reports slightly elevated rates of lung cancer and Hodgkin's lymphoma there compared to the state and county overall, and children's asthma rates are almost twice as high in West Eugene's school district as in the Eugene school district. But the agency also concluded that the cancer risk from naphthalene, a hazardous air pollutant and a source of the pungent odor in the neighborhood, was too low for concern. Residents aren't convinced their health isn't at risk.

Arberry-Baribeault got involved in Beyond Toxics after her friend's son's cancer diagnosis.

Now, she's the environmental watchdog's community organizer for West Eugene, also called Bethel, helping residents understand what's going on in their backyards and explaining how to contact city leaders and join community information and advocacy meetings. Beyond Toxics, along with fellow community organization Active Bethel Community, also helped form what's called the "core team," a group of county and state regulators and community members who meet frequently to share information and ask questions. "My part has always been to make sure (regulators) don't look at us as data," said Lin Woodrich, another neighborhood leader. "What they come up with is what we have to live with."

#### IN 2021, THE DEQ SLAPPED

J.H. Baxter with over \$220,000 in fines, primarily for illegally pressurizing 1.7 million gallons of hazardous waste and boiling it off into the air — by far the largest penalty the state has issued against it. Some activists saw it as a slap on the wrist, while others saw it as a sign that the plant was finally facing real consequences.

Overall, however, accountability has been slow and the company

has succeeded in having some of its penalties reduced. It's part of a state-run air toxics program intended to lower health risks and bring high-priority offenders into compliance, but has yet to complete an emissions inventory, a crucial first step.

J.H. Baxter has also notified regulators that it can't afford to clean up the plant site — an estimated \$3 million cost — or the toxic neighborhood soil. Sampling a single yard can cost several thousand dollars; soil removal could cost tens of thousands of dollars more for each property. Still, the DEQ is trying to get the company to pay for some of the cleanup along with its outstanding penalties. DEQ spokesman Dylan Darling said the agency "will recover cleanup costs to the full extent feasible" and is trying to get a clearer picture of the company's financial situation. The department recently placed a lien, a claim against a property that can be used as collateral, on the facility.

The first cleanup action, removal of toxic soil from a few yards in the neighborhood, will happen this summer — using DEQ funds, so it can begin sooner. The lengthy process, with no guarantees, agonizes community

members. "We claim we're making polluters pay," said Lisa Arkin, Beyond Toxics' executive director. "But in reality, we don't have a way to hold their feet to the fire."

**THAT COULD BEGIN** to change: Eugene's city council is now considering two new tools that could keep other companies from leaving a similar legacy of pollution. One proposal would make companies pay for "risk bonds" up front to cover future pollution costs. The other would create new zoning restrictions for industry abutting neighborhoods, including buffer zones for new development, quicker regulatory agency action on nuisance complaints and bans on activities like wood preservation.

In West Eugene, lawyers are also trying to seek monetary compensation for residents through two class action lawsuits against J.H. Baxter. And while the company's explanation for the plant shutdown was financial, Arberry-Baribeault believes grassroots organizing helped drive the decision. In recent years, residents have become more informed about the pollution, and more vocal in calling for accountability. "We took down the big dogs," she said. "That feels very powerful. That feels like any other place that's doing what they're doing should be afraid, 'cause we're coming for them."

Still, she won't be satisfied until J.H. Baxter pays for the damage it has caused. But in the meantime, neighbors are noticing birds returning to their yards. Mothers say their kids' mysterious rashes are gone, and some no longer need their inhalers to breathe easily. And Arberry-Baribeault's friend's son beat cancer, as did her daughter Zion: She celebrated her 17th birthday on the day the plant announced it was ceasing operations. ☀

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The J.H. Baxter wood treatment plant across the street from homes. The Oregon Department of Environmental Quality found several times the acceptable limit of dioxin contaminating residential yards in 2021.

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Roger Hill fishes in Eleven Mile Canyon on the South Platte River, Colorado.  
**James Busse**

## REPORTAGE

# Who owns Colorado's riverbeds?

How one court case regarding the Arkansas River could open several miles of recreation access.

BY BEN GOLDFARB

**THE FIRST ROCK** hurtled past Roger Hill's head and plunked into the Arkansas River on a summer day in 2012. Hill, then 71, stood hip-deep in the flow, clad in waders and clutching his fly rod. Atop a steep bluff, a woman — whose name, Hill later learned, was Linda Joseph — glowered down at him. Hill was trespassing on private property, Joseph shouted, and flung another rock. "If she'd hit me with a baseball-sized rock from 50 feet up, honest to God, it would have killed me," Hill recalled.

Hill retreated, but the dispute was only beginning. The next time he waded to his favorite spot, some 20 miles upstream of Cañon City,

Colorado, Joseph's husband, Mark Warsewa, left a note on Hill's car that threatened him with arrest. Hill stayed away, but in 2015, two of his buddies returned to fish. Warsewa emerged from his riverfront home with a handgun and fired a shot in their direction. The bullet struck the surface a mere 15 feet from the anglers.

Although Warsewa got 30 days in jail for his stunt, the issue that sparked the conflict remains unresolved: Who owns the beds of Colorado's rivers?

From a river-access standpoint, Colorado is among the West's oddest states. Federal law dictates that the beds of "navigable" rivers

— waterways once used as highways for commerce — belong to the states, which, in turn, generally allow boaters and anglers to use them. Idaho, for instance, grants public access for "all recreational purposes," including angling on foot, on any river capable of either carrying cut timber or "being navigated by oar or motor." Washington permits fishermen and other members of the public to wade streams deep enough to float "a bolt of shingles."

By contrast, Colorado has historically denied that it even has navigable rivers. In 1912, the state's Supreme Court opined that the state's waterways — steep, rushing,

canyon-bound — were "nonnavigable within its territorial limits." By that logic, the beds of even major rivers belonged not to the state, but to the owners of adjacent private properties, who often didn't look kindly on the intrusions of the hoi polloi. When, in 1976, a group of rafters drifted past a ranch that abutted a shallow stretch of the Colorado River east of Kremmling, they were convicted of trespassing for having the audacity to occasionally bump the bottom. In the aftermath, many of the state's landowners and recreators struck a delicate, informal agreement: You could float through private land, but you couldn't touch bed or bank.

Hill, however, prefers to do his fishing on foot. In 2018, he sued Joseph and Warsewa for access to the Arkansas where it flowed past their property; later, he added the state of Colorado to his suit. Contrary to conventional wisdom, Hill believes, the Arkansas River was historically navigable, and its bed thus belongs to the public. And while his case applies only to the river that locals affectionately know as the Ark, it could ultimately affect waterways throughout Colorado, where the public has never craved outdoor opportunities more. "We don't have enough quality recreational opportunities to satisfy demand today," Hill told me. "There are waters I've wanted to fish for 50 years, and I've been denied the use of a state-owned resource."

**ONE APRIL MORNING** I met Hill at a public easement on the Arkansas River near the town of Buena Vista, 60 miles upstream from where he'd been pelted with rocks. Hill's face was sun-chapped, his silver hair tousled by the spring gusts that bedevil Colorado's anglers. He wore wading boots from the gear company Patagonia, which had caught wind of his case and sent some supportive swag.



In a 2003 photo, Don Menk adjusts a “No Trespassing” sign along the west bank of the Gunnison River on his property near his home. He was accused of firing his gun near fishermen.

Lyn Alweis/The Denver Post via Getty

commerce, I don’t know what’s commerce,” Hill said.

Hill has not yet had the opportunity to present his evidence, though. After he filed suit in 2018, his case bounced between jurisdictions as the defendants, including the state, contested his standing. In January 2022, Colorado’s Court of Appeals finally ruled that Hill had standing to take the case to trial. The ramifications could be immense: If a court eventually decides that conveying railroad ties and pelts makes the Arkansas navigable, then other rivers in the state — the Yampa, the Roaring Fork, the Dolores and the Colorado, to name a few — may also qualify. “There’s a lot of places where people could apply this legal precedent and consider similar challenges,” said John Gale, conservation director for Backcountry Hunters & Anglers.

These repercussions explain why Hill has attracted as many opponents as supporters. A panoply of interests — including homeowners’ associations, water providers and the city of Colorado Springs — have joined the case against him. He’s also encountered resistance from Colorado’s attorney general, Phil Weiser, who has accused Hill of engaging in a “coordinated effort” to upend property rights on rivers around the state. By siding with Hill, Weiser has written, the Court of Appeals could disrupt “long-settled and carefully balanced rights” on the Arkansas and beyond. (Weiser’s office declined to comment for this story.)

Most displeased, perhaps, are riverfront property owners. Among the entities who filed briefs opposing Hill is the Colorado arm of Jackson-Shaw, a Dallas-based development company that purchased nearly two miles of land along the Taylor River near Gunnison in 2007 to create

a “private fly-fishing property sanctuary.” Jackson-Shaw is no stranger to access disputes: Even rafting through the development, the company’s chairman has written in the past, is akin “to someone walking across your front lawn on a short cut to the grocery store.” In its brief on Hill’s case, the developer noted that it made “substantial financial investments” in enhancing fish habitat on its Taylor property; modifying privately owned riverbeds and controlling who gets to fish them, the company added, represents the “lifblood” of dude ranches and private angling clubs. A victory for Hill, it wrote, would cast a “dark cloud” over riverbed owners around the state. (Jackson-Shaw and its Taylor River development didn’t reply to my requests for comment.) “If we were to win, it would upset the claimed rights that some of these landowners have to keep the public riff-raff off what I consider to be public streams,” said Mark Squillace, Hill’s pro-bono attorney, who is a professor of natural-resources law at the University of Colorado Boulder.

Some Colorado water managers are just as concerned as the state’s developers. Who owns Colorado’s riverbeds is, of course, a different question than who owns the water that flows over them: As Hill put it, “Not one drop of water will ever have its ownership or use changed, end of discussion.” That doesn’t much mollify Terry Scanga, general manager of the Upper Arkansas Water Conservancy District, a group that manages water in the Arkansas Valley and advocates for its water-rights holders. Hill’s suit is predicated in part on the public trust doctrine, the notion that certain resources are so important that they should be stewarded by the government for public use. If Colorado declares its riverbeds subject to the public trust, Scanga argues, the state could someday apply similar logic to water itself, upsetting the ancient “first in time, first in line” system for allocating rights.

“It’s not the wading itself that’s

Hill hoped the new footwear would keep him upright in the Ark’s stiff flow. “When you read my obituary, the first line is going to be, ‘A man his age should have had better sense than to wade the river where he did,’” he said.

Hill fished with an admirable economy of motion, a precision to which my flailing limbs could only aspire. He cast crisply into seams and riffles, chewing gum and stripping line in metronomic rhythm. Although few fish were rising, he tied on a dry fly of his own making — the design of which, he informed me, was strictly off the record — and coaxed a bite from a lovely brown trout freckled in vivid red and black. “There’s one looking up, at least,” he said as I netted his fish.

Hill, who grew up in Oklahoma, came of age fishing the Midwest’s limestone creeks in cutoff jeans and tennis shoes. But his angling career began in earnest in 1967, when he moved to Colorado Springs to work as a nuclear physicist for a weapons manufacturer. He approached fly-fishing like a scientist, poring through entomology textbooks to understand the life cycles of mayflies and midges, then bending over his fly-tying vise to imitate their manifold forms. Although his career later wandered into real estate and used cars, his studious devotion to angling never wavered. “Something as simple as adding another foot of tippet” — the fine,

translucent line to which anglers tie their flies — “may be the difference between success and failure,” he wrote in one guidebook.

While Hill fished all over the West, he had a special affection for the Arkansas River, the snow-fed torrent that tumbles down from the Sawatch Range, rolls east through central Colorado, and, nearly 1,500 miles later, spills into the Mississippi. In the early 2000s, at a local guide’s suggestion, Hill began fishing the Ark’s confluence with a tributary called Texas Creek, a prime spot graced with ample rocky trout habitat. Although a tony subdivision squatted on the bank nearby, he never had a problem with its homeowners — until Linda Joseph began chucking rocks at him in 2012.

Hill was adamant that he had a right to the river. His rationale was rooted in the “equal-footing doctrine,” a legal principle that, in theory, granted Colorado ownership of any river that was navigable at statehood in 1876. But was the Arkansas truly navigable? Hill scoured newspaper archives and found dozens of references to industries employing the river as a commercial highway. In 1813, a beaver trapper named Ezekiel Williams canoed down the Ark with bales of pelts, and in the 1870s, railroad companies floated thousands of wooden ties from the river’s headwaters to the town of Pueblo. “If building a railroad ain’t

the key here,” Scanga told me. “It’s the basis upon which you get the right to do that. It raises a whole bunch of potential legal issues in the future — big ones.”

**HERE MIGHT BE A GOOD** moment for a confession: I’m not an entirely disinterested party in Hill’s case. I recently moved to the Arkansas Valley after living for years in the inland Northwest, where I did most of my fishing in Montana, an angling mecca where state law permits fishermen to wander down any stream they choose, navigable or not. Upon my return to Colorado, I was taken aback to find the Arkansas lined with NO TRESPASSING signs. About 30% of the Ark is privately owned, and, while it boasts more public access than many state waterways, barbed wire seemed as abundant along some stretches of bank as cottonwood trees.

Nor is the Arkansas the only Western river where recreators and landowners have become embroiled in stream access battles. In 2010, the Utah Legislature barred the public from wading non-navigable waters through private property, effectively closing more than 40% of the state’s miles of fishable streams; although anglers and boaters sued, a judge upheld the law last year. Access advocates have had more success fighting back in New Mexico, where the state’s Game Commission passed a rule in 2017 that allowed landowners to preclude the public from streams deemed non-navigable. Fence-and-wire barricades promptly popped up on the Rio Chama and the Pecos River — the latter erected by Hersh Family Investments, a Texas-based equity fund. “An unsuspecting floater getting swept into that, it’s a really hazardous place to be,” said Norm Gaume, a board member of the Adobe Whitewater Club. The club and other groups challenged the rule, and, in March 2022, the New Mexico Supreme Court deemed it unconstitutional after deliberating for all of 15 minutes. “There was a lot of celebrating in

Santa Fe,” Gaume said.

This preponderance of cases testifies, I think, both to the murkiness of river law, and to the hoary philosophical differences about the nature of rivers themselves — who they’re for, what they even are. Are riverbeds a category of land like any other, subject to privatization and enclosure? Or are they fundamentally unlike land: shared spaces for spiritual renewal and joy, rendered so precious in the West by their scarcity that it would be unjust to deny the public their pleasures? It’s no coincidence, perhaps, that the current slew of stream-access cases arrives at a fraught moment in recreational history, one in which we’ve sought the solace of rivers more desperately than ever. The public’s appetite for fishing — an activity that is, after all, inherently outdoors and socially distant — spiked during COVID-19; so many anglers hit Western waters that one writer dubbed the situation “Rivergeddon.” Hill recently visited a prime spot on the South Platte River, only to find cars parked bumper-to-bumper along its bank. “The good waters are just mobbed,” Hill told me this April as we paused to change flies on the Arkansas’ banks.

Whether Hill will have the chance to finally try his case remains unclear: That very day, the state had petitioned the Colorado Supreme Court to deny him standing, arguing that the appeals court had “reward(ed) trespassing” by finding in his favor. The Supreme Court is currently considering the petition and is expected to rule soon; if it upholds the lower court’s decision, Hill could bring his case to trial as early as this fall. “I’m determined I’m going to win, but God knows how long it’s going to take,” Hill said. He squinted at the minuscule mayfly pattern in his hand and jabbed his line at its eye. His vision wasn’t as keen as it used to be, he admitted, nor his fingers as steady. I offered assistance, but Hill waved me off and bent back to his fly. “I won’t let the son of a bitch beat me,” he said. ☀

## POEM

### The Next Sky

By Sherwin Bitsui

Looking in  
from the next world,  
eyes still coated  
with coal dust —  
we seal black the past.

A dust storm’s bellow  
cracks open thoughts  
of crow beaks  
pinned to smog,  
bridging a mesa’s edge  
to its midnight shadow.

Here, we notice  
how hunger-bellied drought  
*skeletons* the clouds,  
then splinters beneath  
a flint blade’s  
jagged spike.

And there, under  
the next sky: ghost hands  
unlocking doors wiped clear  
of the names of seasons  
skinned from tire treads.

**WEB EXTRA** Listen to Sherwin Bitsui read his poem at [hcne.ws/next-sky](https://hcne.ws/next-sky)

**FACTS & FIGURES**

# Hydrogen hues

Is this wonder fuel truly green — or just another fossil fuel in disguise?

BY JONATHAN THOMPSON  
ILLUSTRATIONS BY  
FIONA MARTIN

**IN JANUARY**, New Mexico Gov. Michelle Lujan Grisham, D, unveiled the “Hydrogen Hub Development Act,” saying it would “expand the clean energy economy” in the state “while lowering greenhouse gas emissions through incentivizing low-carbon hydrogen production and export.” At first glance, it seemed to align with Lujan Grisham’s Energy Transition Act, which phases out coal power while funding a transition to clean energy. After all, hydrogen is a sort of miracle fuel: It can power planes, trains and automobiles; it can potentially replace natural gas for heating, cooking and power generation; and it can be used to fire steel furnaces or cement kilns. And, when burned, it emits only water and warm air.

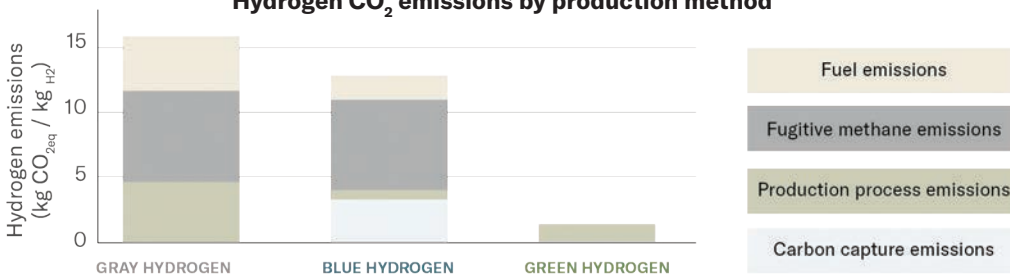
So it may have come as a surprise when the governor’s initiative was shot down not once, but twice in a legislature dominated by Democrats — and not by Republican clean-energy foes, either, but by Lujan Grisham’s fellow Democrats, with the support of the environmental community. That’s because much of the hydrogen in question would be “blue” — extracted from methane or natural gas, thereby spurring more drilling in the state’s northwest corner and causing greenhouse gas emissions and other environmental impacts.

Here’s the catch: Hydrogen doesn’t fly solo in nature; it’s always attached to something else, whether a pair of oxygens (water) or an atom

of carbon (methane). Before it can be used as a clean fuel, it must be detached from its companions. The method used for the separating (*see facing page*), and the type of molecule the hydrogen is separated from, determines the “color” label of the hydrogen: green, pink, blue, gray or black. And that color signifies whether the hydrogen truly is a clean fuel, or just another fossil fuel dressed up in clean clothing. ☀

SOURCES: U.S. Department of Energy, Wyoming Energy Authority, Hydrogen Hub Development Act (New Mexico), Canary Media, Los Angeles Times, “Defining and Envisioning a Clean Hydrogen Hub for New Mexico;” “The economics and the environmental benignity of different colors of hydrogen,” by A. Ajanovic, M. Sayer and R. Haas; “How green is blue hydrogen,” by Mark Z. Jacobson.  
**Infographic design: Luna Anna Archey**

**Hydrogen CO<sub>2</sub> emissions by production method**

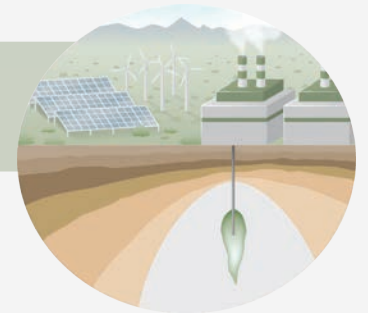


**Cost of producing hydrogen types per kg:**

**\$0.84 - \$2.21**  
**\$1.16 - \$3.16**  
**\$2.31 - \$8.63**

## PROPOSED HYDROGEN PROJECTS IN THE WEST

**Advanced Clean Energy Storage Project, Delta, Utah.** This ambitious project, currently in the planning phase, would use excess solar and wind power to extract hydrogen from water. The fuel would then be pumped into natural underground salt caverns, where it would be stored for use at the nearby Intermountain coal power plant, which is currently being converted to burn natural gas and hydrogen, with a goal of burning 100% hydrogen by 2040. The power from the plant goes to utilities in Los Angeles and Utah.

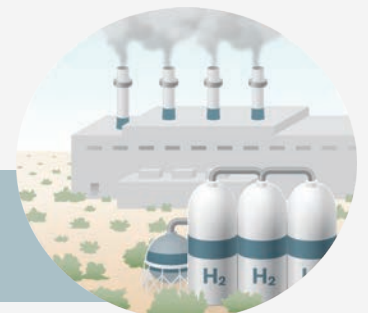


**Mountain States Regional Hydrogen Hub, New Mexico, Utah, Colorado and Wyoming.** After Lujan Grisham’s idea for a New Mexico hydrogen economy was quashed, she teamed up with other Western natural gas-producing states to get a portion of \$8 billion in federal infrastructure funds to establish a regional “clean” hydrogen hub. The proposal is “hydrogen colorblind,” meaning either blue or green hydrogen would fit, but Lujan Grisham’s initiative is supported by a blue-leaning report authored in part by the natural gas industry.



**Nuclear Hydrogen, Tonapah, Arizona.** With the help of \$20 million in federal funding, the Idaho National Laboratory and Arizona Public Service hope to extract hydrogen from water using electrolysis powered by the Palo Verde nuclear generating station, outside of Phoenix. The hydrogen would then be used to fuel natural gas “peaker” plants during times of high demand when solar generation drops.

**Wyoming Blue Green.** A few hydrogen projects are in the feasibility-study phase in Wyoming: a natural gas-fed hydrogen generator and natural gas turbine conversion project; a wind-powered hydrogen-production facility that would ship the fuel to market via existing natural gas infrastructure; and a renewable-energy-powered facility to produce hydrogen and renewable natural gas.

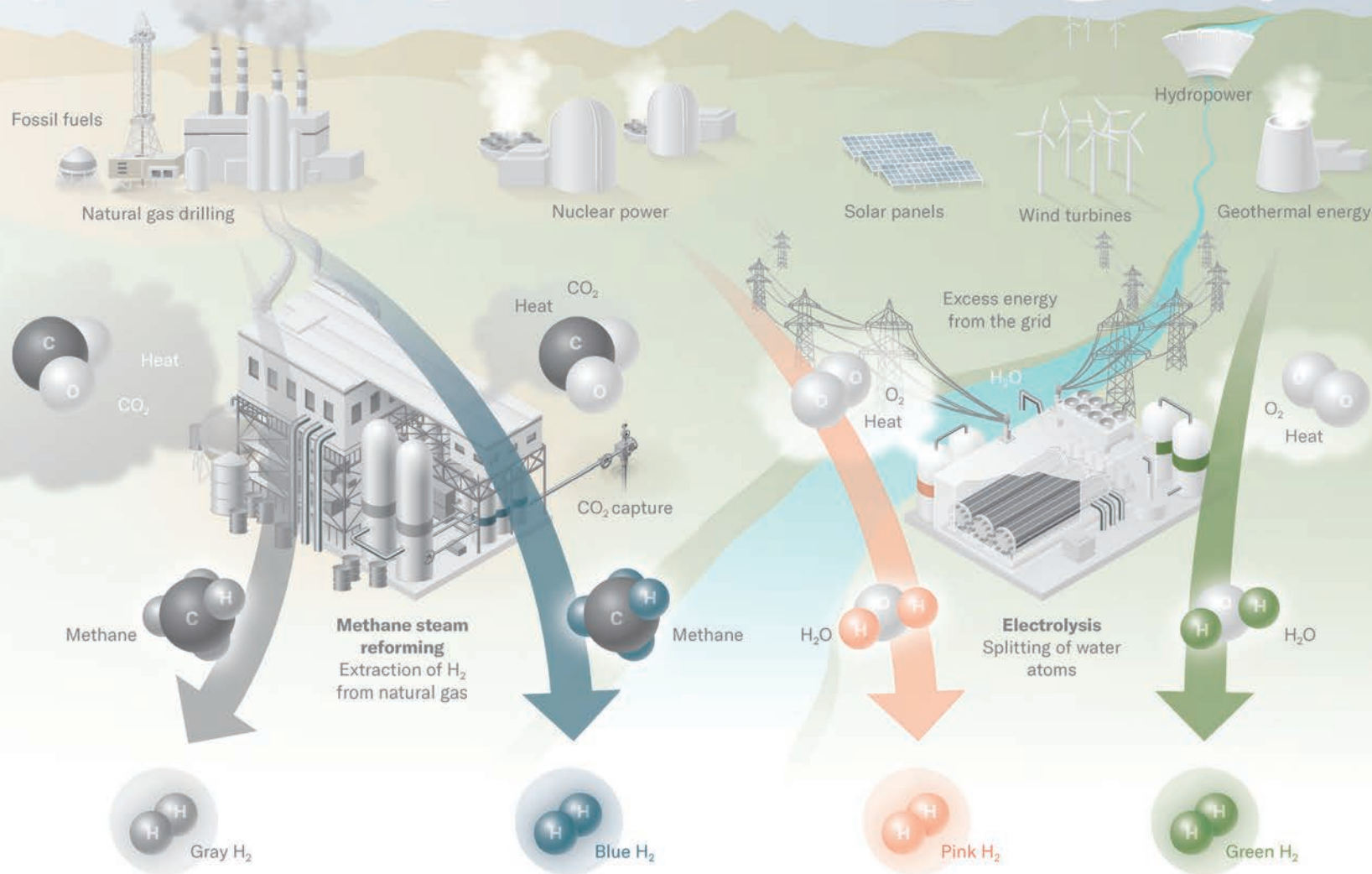


**Hydrogen Energy Transition?** A provision of New Mexico’s 2019 Energy Transition Act allocates funds for economic development in communities affected by the closure of the coal-fired San Juan Generating Station this summer. When local groups were invited to apply for funding, some wanted to produce blue hydrogen using the region’s natural gas supplies, even though the law was designed to transition the state away from fossil fuels.

## HYDROGEN PRODUCTION RAINBOW

NONRENEWABLE ENERGY

RENEWABLE ENERGY



**GRAY HYDROGEN** comes from natural gas or methane —  $\text{CH}_4$  — that has been subjected to super-hot steam and a catalyst to separate the hydrogen from the carbon. This leaves carbon dioxide, a greenhouse gas, which is then emitted into the atmosphere. Most current hydrogen production is gray and is used for fertilizer or in refining, but California also has 48 hydrogen fueling stations for fuel cell-powered vehicles.

**Upside:** The hydrogen produced from the process is like any other “color” of hydrogen; it burns cleanly and could fuel transportation with fewer emissions than petroleum, though they would still be produced. The technology is proven on large scales.

**Downside:** The natural gas that is the feedstock is usually extracted via drilling or “fracking,” a water-intensive process that damages land, air and water and emits methane, a potent greenhouse gas. Fossil fuels may be used to power the steam required for the process, and oodles of carbon dioxide are emitted when the hydrogen is separated from the methane.

**BLUE HYDROGEN** is produced using exactly the same method as gray hydrogen, except that equipment is used to capture a portion of the carbon dioxide emissions, which are then sequestered or used to stimulate aging oil wells.

**Upside:** It’s a bit cleaner than gray hydrogen, because some of the carbon from the extraction process is captured. The developers can receive federal tax credits — i.e., subsidies — for each ton of carbon captured and sequestered.

**Downside:** It still relies on natural gas — a fossil fuel — for feedstock (unless the methane comes from dairies or landfills) as well as to power the steam reforming, so it has the same drawbacks as the gray stuff. And the carbon-capture equipment gulps electricity, producing carbon emissions of its own, and is unproven at large scales.

**PINK HYDROGEN** production uses electrolysis — powered by nuclear energy — to extract hydrogen from water.

**Upside:** The power generation and extraction process emit no greenhouse gases.

**Downside:** Nuclear power requires uranium mining and milling and enrichment, and it produces radioactive waste.

**GREEN HYDROGEN** production also extracts hydrogen from water with electrolysis. To qualify as green, the power for that must come from renewable sources, such as wind and solar.

**Upside:** It’s clean! It can use excess solar and wind generated when the sun is shining and the wind is blowing and demand is low. And the extraction process emits only oxygen.

**Downside:** It’s expensive! The electrolyzers are costly, and electrolysis is very energy-intensive, gulping up clean power that could be used for other purposes. Also, it requires water, which is in short supply these days.

Elsewhere on the spectrum: **BLACK** (derived from gasified coal); **BROWN** (from lignite, or “brown” coal); **TURQUOISE** (uses pyrolysis on methane to derive hydrogen and solid carbon); **YELLOW** (Green hydrogen that uses only solar power; also can refer to electrolysis using grid power); and **WHITE** (geologic hydrogen stores that would be extracted via drilling).



## REPORTAGE

# Fracture at the falls

The West's biggest waterfall has been inaccessible for a century. Efforts to restore it are tangled in painful colonial politics.

BY BRIAN OASTER

**EVERY SECOND,** 32,000 cubic feet of water rushes over a horseshoe-shaped basalt ledge, churning up a dome of mist and white noise that enfolds the entire 1,500-foot-long, four-story-high shelf. Willamette Falls, the West's biggest waterfall, is surpassed in the U.S. only by Niagara. It would astound anyone who saw it — if they could see it. But for a century now, industrial structures have blocked access to this natural wonder.

These structures have included lumber, grist, woolen and paper

mills, the nation's largest producer of cardboard box material, and a hydroelectric dam that diminished the waterfall to power the nation's first successful long-distance transmission of electricity. Throughout the 20th century, the falls, nestled in the Portland area between Oregon City and West Linn, seemed destined to serve industry and little else. Then the Blue Heron Paper Mill went bankrupt after a New York private equity firm purchased it, and the Confederated Tribes of Grand Ronde seized the opportunity to buy the property in 2019.

The tribal nation was already involved in a plan to restore the area and reclaim the falls, having partnered with the Willamette Falls Legacy Project, a nonprofit organized to revitalize the falls, and the Willamette Falls Trust, which began as the Legacy Project's fundraising arm before expanding operations. The Legacy Project, which included Grand Ronde, Clackamas County, Oregon City, the state of Oregon and the tri-county authority Oregon Metro, set out to redesign the old paper mill for public access. After Grand Ronde finalized its \$15.25

million purchase of the 23-acre site, however, the project took a turn.

In spring 2020, the trust invited other tribes with ties to the falls to join the board: the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of Warm Springs and the Confederated Tribes of Siletz Indians joined. Grand Ronde was not pleased; Chairwoman Cheryle Kennedy publicly criticized the tribes' inclusion, saying the trust's board sought to “undermine us by asking other tribes to take seats.”

Grand Ronde presented itself as the only tribe with a legitimate connection to the falls. “We’re the sovereign nation that has the treaty for the entire metropolitan area,” Kennedy told the *Portland Tribune*. “No other tribe can say that.”

Kennedy also wrote a formal complaint to the trust's board of directors about microaggressions: During meetings, non-Native contractors allegedly presented Indigenous histories, inaccurately and without permission, and used colonial terms like “discovery.”

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Aerial view of Willamette Falls, which currently has no public access point on the ground. **Sean Schlimgen/Resinated Lens**

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Then, in February 2021, Grand Ronde refused to sign a standard confidentiality agreement with the trust to protect donor information, as well as an IRS-required conflict of interest agreement, in what Kennedy called “an ultimatum.” In response, the trust barred Grand Ronde from a Zoom meeting. In a letter to the board, Kennedy called these “insulting and harmful practices.”

“Those claims about cultural incompetence or microaggressions because of these documents continue to confuse us,” said Gerard Rodriguez (Yaqui and Nahautl), the trust’s associate director and director of tribal affairs. “No other tribal nation had any issue with this.” Still, the trust apologized.

In April 2021, Grand Ronde withdrew from the trust, and this March it withdrew from the legacy project altogether, taking its waterfall-front real estate with it. This left the project without a site, and Grand Ronde on its own to find funding for development. Grand Ronde blamed the microaggressions, and bureaucratic gridlock caused by too many parties being involved. But Grand Ronde’s isn’t the only story.

**DAVIS “YELLOWASH”** Washines, who represents the Yakama Nation on the board of the Willamette Falls Trust, has longtime friends on Grand Ronde’s tribal council, as well as family connections to the Klikitat people, who historically enrolled with both Yakama and Grand Ronde. “These are basically our relatives,” Washines said.

But he, along with the board’s other tribal representatives, took issue with Grand Ronde’s exclusive claim to the falls. While Washines agrees that most people ejected from the area ended up on the Grand Ronde Reservation, he says the contemporary tribes overlap,

and the Yakama people’s spiritual and cultural relationship with Willamette Falls dates back to time immemorial.

Prior to industrial degradation, this natural wonder was a marketplace. Salmon and lamprey gathered at the falls, so the people did too, traveling from across the Northwest to fish, trade, laugh and see old friends. After the federal government divided area tribes, it sent them to reservations, reorganized as confederations. Today these confederations, including the Yakama Nation, Warm Springs and Umatilla, retain treaty-guaranteed access to the falls as a “usual and accustomed” fishing site. It’s one of the last places in the U.S. to harvest Pacific lamprey.

“We’re not ‘visitors’ — those things have no place in our discussion,” Washines said. “If other people want to say that they are the only people there, then that’s their business. But I rely on facts myself. And I rely on the oral tradition of our people.”

“Their argument that they are the only Indians in the universe who matter at Willamette Falls is absolutely ridiculous,” said Robert Kentta, treasurer of the Siletz Tribe and current board chair of Willamette Falls Trust.

He called Grand Ronde’s behavior bullying, its withdrawal from the trust a “public flip.” Kentta fears that, more than just shutting other tribes out of the development project, Grand Ronde might erase other tribal histories from public presentations, or even shut down plans for public access to the falls.

Grand Ronde bought the mill with an easement running through it, which Oregon Metro obtained from a previous owner. That easement requires any future developments to include a public riverwalk. Grand Ronde told *HCN* that public access remains a central element of the tribe’s development plans. But Kentta’s not convinced. “I am concerned that with Metro’s posture, that (Grand Ronde) will bully their way into either getting

Metro to hand over that easement to them or sell it to them.”

Metro is in a precarious position. It is a member of the legacy project, it has a non-voting member on the board of the trust, and it has to balance these interests against the wishes of Grand Ronde, which owns the property with the easement. When asked who could enforce the easement, or whether it was possible for Grand Ronde to take control of it, a Metro representative emailed *HCN*: “We continue to work with the Confederated Tribes of Grand Ronde regarding the role that the easement plays in their redevelopment on the property. Public access at Willamette Falls is important to everyone, and we are looking forward to further conversations about how to achieve that shared goal.”

Kentta said the Willamette Falls situation is yet another attempt by Grand Ronde to disrupt other tribes’ development plans. “We’ve been through many of these kinds of contests with the Grand Ronde Tribe, and they play a very nontraditional, non-Native type of political game.” Washines called this behavior “aggressive.”

An op-ed in the Umatilla tribal newsletter, written by the tribe’s board of trustees, said “the restored Grand Ronde Tribe seems to have forgotten how Indians resolve differences”; Umatilla “supported the restoration of the Grand Ronde Tribe in the 1980s, but their quest for territorial expansion through exclusionary practices has made working together difficult.” But Grand Ronde insists it has a unique role, since the falls are part of tribal homelands ceded under the Willamette Valley Treaty of 1855.

“Today, as owners and hosts of the site, our goal is to renew access for the public. As we make progress towards that goal, we welcome input from all that have an interest in our Willamette Falls project,” said Sara Thompson, the Grand Ronde Tribe’s communications director, in an email to *HCN*. “We are disheartened to hear the comments from some. We view

these comments as distracting from the important work at hand. Our focus is on renewing, restoring, and revitalizing Willamette Falls so we can all experience this special place.”

**IT’S IMPORTANT TO** remember that these fractures stem from painful histories. None of these confederations, or the boundaries between them, existed before colonization. In fact, in 1855 there was only one western Oregon reservation: Siletz, which is where the tribes that became part of Grand Ronde were originally scheduled to be sent. But President James Buchanan abruptly decided to establish the Grand Ronde Reservation as a second western Oregon reservation instead of an extension of Siletz. On a foreigner’s whim, the tribes became separate peoples.

“Over the years, there’s been a lot of trauma and historical legal wrongs done to the tribes just falling out of that history,” said Kentta. Washines told *HCN* almost exactly the same thing.

“They’re a sovereign, just like we are, and they have their reasons, at the tribal council level, to make decisions,” Washines said. “So it’s not for me to question.”

Grand Ronde has begun demolition of the old paper mill. And whatever happens to the property, all the tribes can still reach the falls by boat for summer lamprey harvests. The trust is seeking new opportunities for public access, possibly on the other side of the river, where Portland General Electric operates a hydroelectric station alongside another, still-active paper mill. Washines says he looks forward to the day when he can go to Grand Ronde as a friend and “untangle these Christmas lights together.” At his suggestion, the board’s tribal leadership committee permanently reserved a seat on Willamette Falls Trust for Grand Ronde, should the tribe ever wish to return.

“Yakama Nation will never say, ‘You don’t belong here.’” ❁



## The beauty buried in the data

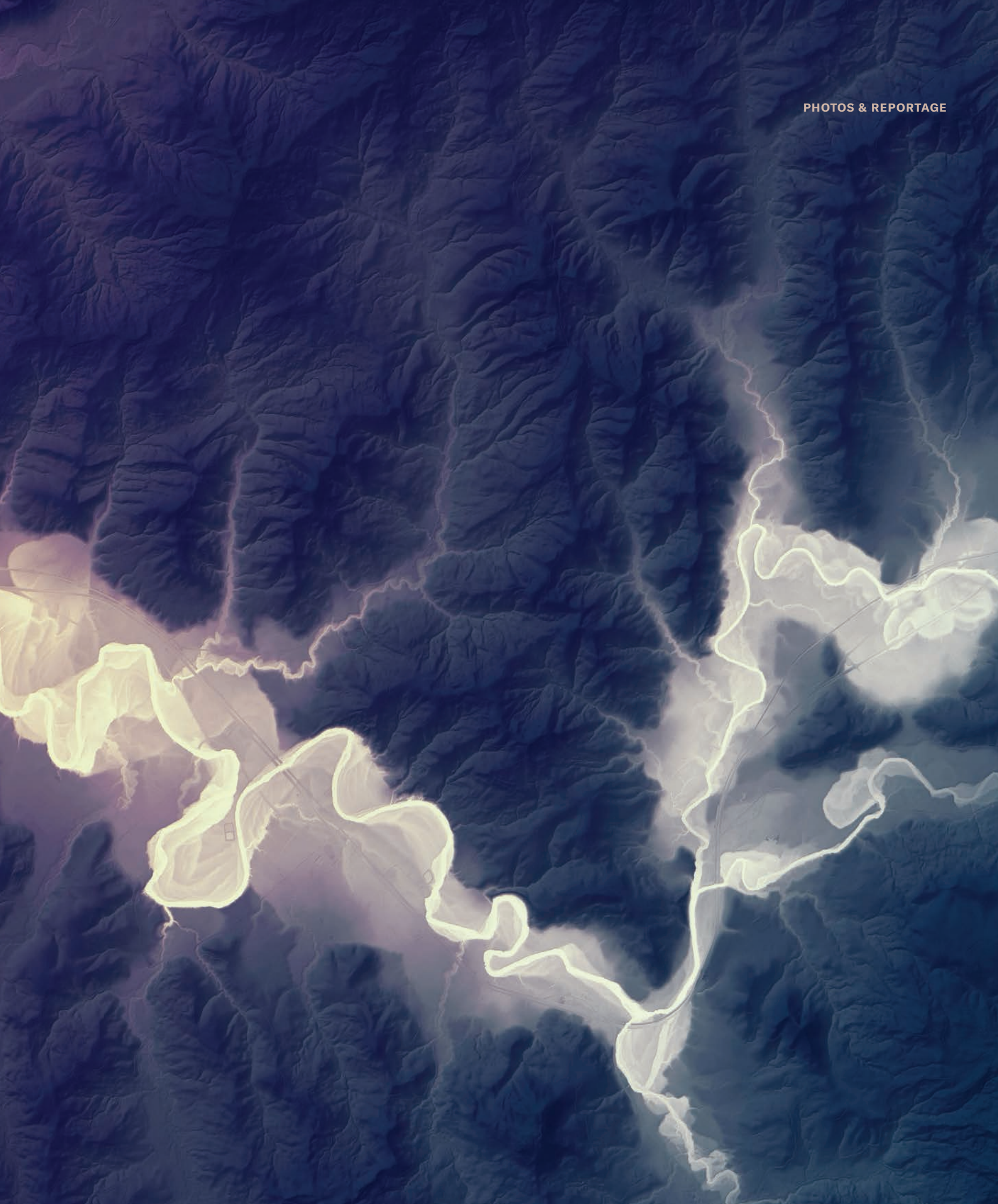
Art created using laser data reveals the history and geological wonder of Washington's landscape and rivers.

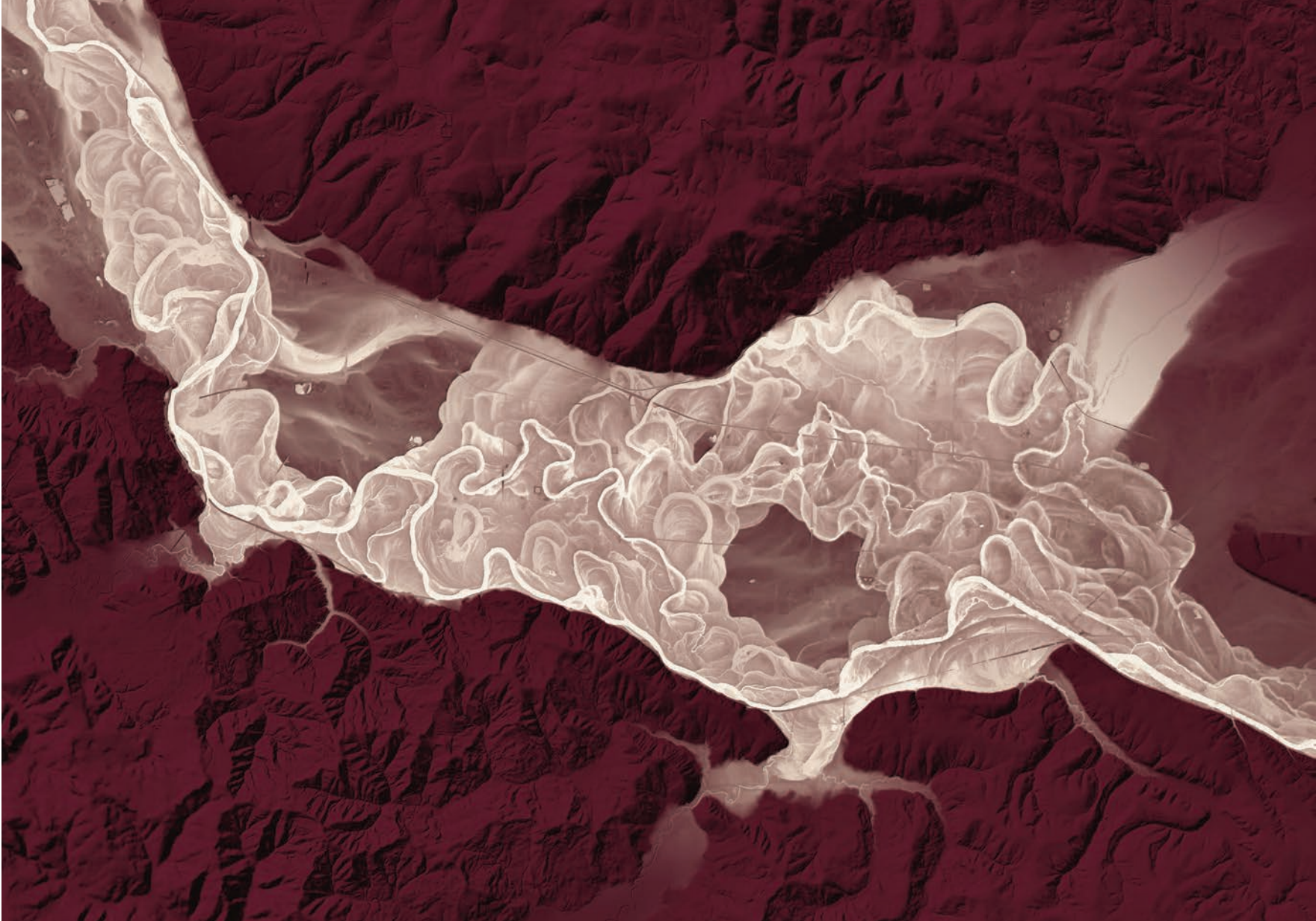
LIDAR IMAGERY BY DANIEL COE, WASHINGTON GEOLOGICAL SURVEY

Daniel Coe, the graphics editor for the Washington Geological Survey, creates surreal composite images showing rivers, ridges and other natural features from above. Using data from plane-mounted lasers, his work blends the technical and natural to uncover hidden details of the landscape. He began creating these images while working for the Oregon Department of Geology and Mineral Industries and has continued the work in Washington. The process begins with survey teams gathering laser scans using LiDAR, or Light Detection And Ranging, to generate precise elevation maps. Then Coe adds artificial light and color — sometimes even aerial photography — to the topographical renderings, exposing the beauty buried in the data. This allows him to share the enduring stories the land tells of old slides and future risks, as well as the past paths of rivers, revealing the routes they carve through the landscape — and through time itself. —*Michael Crowe*

**LiDAR-derived image of the Willapa River as it flows out of the heart of the Willapa Hills in southwest Washington.**







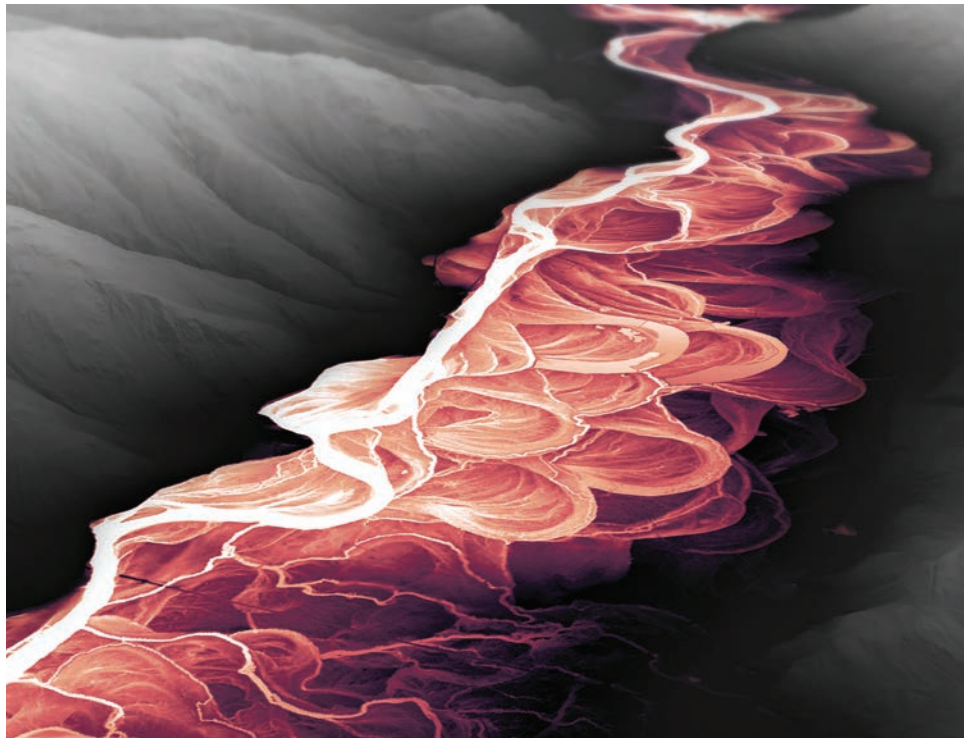
“*Cartography and mapmaking straddle the boundary between art and science in a lot of ways. Or they often do. We live in a beautiful world, and you can show it in all these beautiful ways with this new technology. But it also has great scientific value. Looking back into the past allows us to see what might happen in the future.*”

—Daniel Coe,  
Washington Geological Survey



Stream confluence, Chehalis River and Black River (*facing, top*).

Floodplain with the current and former channels of the Skagit River near Rockport, Washington (*below*).



Alluvial fans lining the Methow River Valley in northern Washington (*above*).

Estuaries of the Deep River and Grays River, and large landslides above the White River in Pierce County (*facing, bottom*).

## Hidden hazards

Years after the deadliest landslide in U.S. history, Washington scouts for potential new slides with airplanes and lasers.

BY MICHAEL CROWE

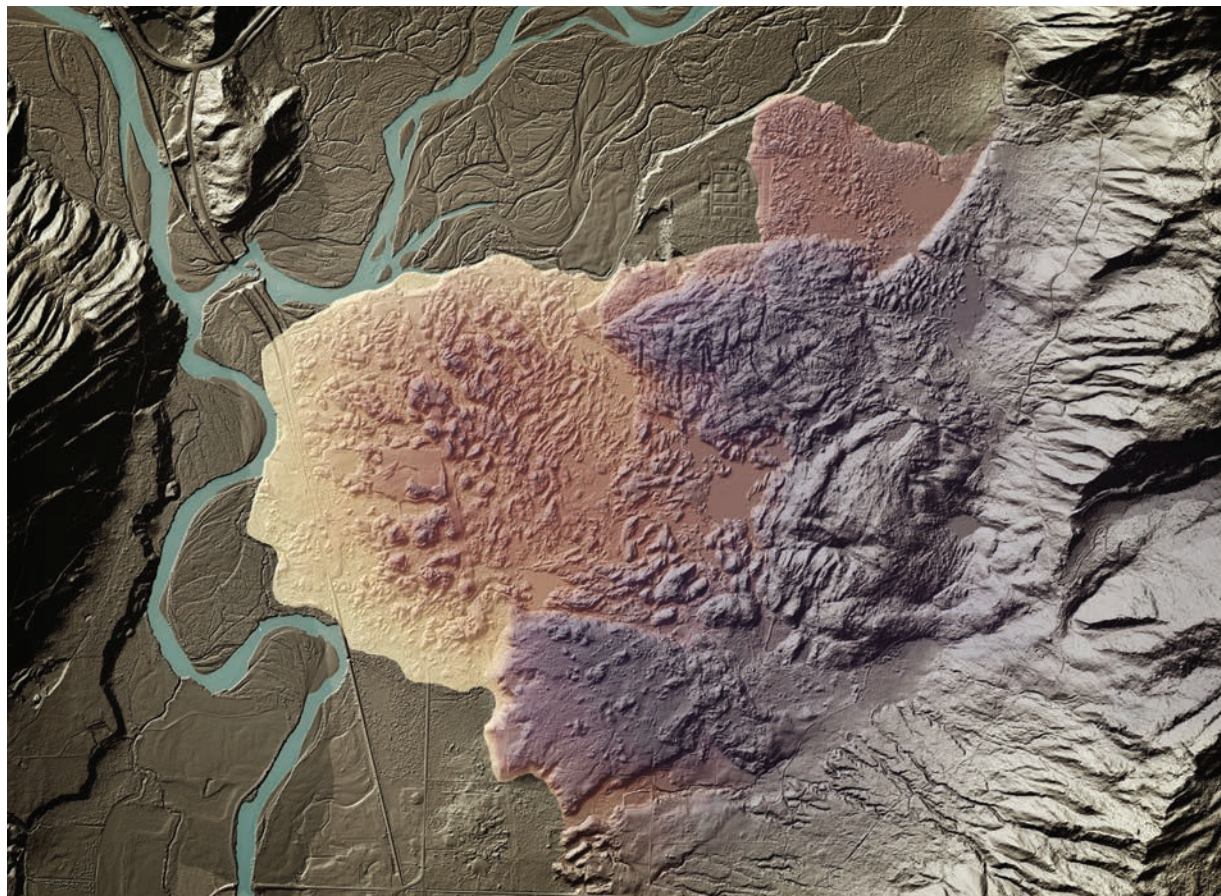
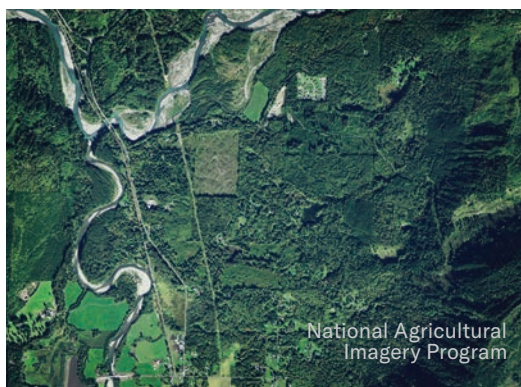
**FOR YEARS, SMALL PLANES** have buzzed across the skies of Washington carrying specialized instrument packages that peer down through the belly of the aircraft. As they soar above mountains, rivers and valleys, the machinery paints the topography below with laser light thousands of times per second, reflecting the contours of the landscape back to onboard sensors as data, which is later processed to create detailed scans of the terrain.

This technology is known as LiDAR — Light Detection And Ranging — and the flights are the work of the state’s Landslide Hazards and LiDAR programs. The initiatives grew out of tragedy: In 2014, a massive slide broke loose above the small community of Steelhead Haven near Oso, Washington, in the foothills of the Cascades. Forty-three people were killed, making it the deadliest landslide in U.S. history.

Afterward, an influx of funding rapidly expanded the nascent programs, and the mandate was clear: Map slides, and identify potential hazard zones. “I don’t think we’re ever going to get to a place where there’s no destruction of property from a slide, because you can’t predict when that’s going to happen,” said Kate Mickelson, program manager for the Landslide Hazards Program with the Washington Geological Survey. “But I would like people to know that there is this risk out there, because I think a lot of people are caught off guard.”

That’s where LiDAR comes in. Laser light filters through the gaps between the branches and leaves of thick vegetation, producing precise images of the ground below. In Washington, it has revealed thousands of past slides, which Mickelson’s team then maps to identify hazard areas. With subsequent

An aerial photo (below) and a LiDAR-derived image (right) show the Devil's Slide, also known as the Van Zandt landslide, near Van Zandt, Washington.



visits, LiDAR scans can even show small movements over time that might indicate instability. Multiple states, including Oregon and Colorado, have similar initiatives, though the tragedy at Oso gave Washington's work a distinct sense of urgency. Staff have also provided support to their counterparts in Alaska as they launch a program, Mickelson said.

LiDAR data is used by state officials in a variety of other ways, too: to assess hillside stability before timber sales, to identify slides along shorelines that could harm fragile ecosystems or critical infrastructure, and to ensure that disaster evacuation routes are safe and reliable. Data is also available to local governments for land-use decisions, including new construction or renovations, and even to individual property owners. "We had several homes that were destroyed this past winter from landslides, and I don't know if those people knew they were in a hazard zone," Mickelson said. "We really would like to get the message out."

**CLIMATE CHANGE** makes mapping landscape hazards increasingly important as more intense rainfall events, which can saturate and destabilize soil, become more likely. On top of that, Washington's receding glaciers reveal scoured rock that can exacerbate runoff. Factor in the existing challenges of steep slopes in a damp climate and it's a recipe for trouble. "We have this ripe setting for landslides to occur, and then you're adding climate change impacts on top of that," said Ronda Strauch, a researcher with a doctorate from the University

“It’s humbling, at a certain level, when you start thinking about geologic time, or even back to the last ice age. That’s a really long time from a human scale and a human perspective, but in a geologic timescale, it’s just a blip. So being able to grasp just a little bit of that deeper time is something that I really enjoy, and I like helping convey that to other people.”

—Daniel Coe,  
Washington Geological Survey

of Washington and climate adaptation advisor for utility Seattle City Light.

Fire can also increase the danger: After an area burns, downslope communities remain at higher risk for several years, despite a perception that the threat has passed with the flames. The Washington program includes post-wildfire debris-flow assessments, in which crews survey the infrastructure

and homes in potential flow paths and communicate the results to residents. That work — already well-established in fire-prone states like Arizona, Colorado and California, Mickelson said — is becoming increasingly necessary in the warming Northwest.

Despite the perspective that LiDAR provides, it's still difficult to forecast individual slides, given the complicated interplay between geology, rainfall, groundwater and even triggering earthquakes. At the start of this year, Washington took down an online shallow landslide forecasting map based on rainfall thresholds, concerned that it wasn't accurate enough. The geological survey hopes to relaunch it in a few years, but in the meantime, the hazards program points people to federal resources, a technical LiDAR portal, and a different interactive map it launched at the end of last year.

That map allows people to explore surreal LiDAR composite art created by Geological Survey graphics editor Daniel Coe, showing meandering river paths and obscured slides. And it aligns with the landslide program's focus on education: connecting people to the land's long geological story and the hidden threats it can hold.

For Mickelson and her colleagues, the work will continue. Washington has scanned somewhere between 70% and 75% of the state so far, and is on track to hit virtually 100% in the next few years. But once that first pass is complete, they will start all over again — to improve the resolution of some areas, monitor changes over time and, ultimately, gain a better understanding of the landscape. ☀

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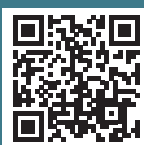
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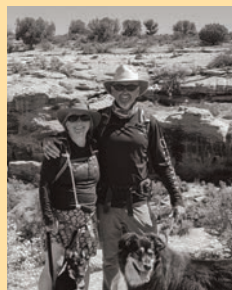
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 Karen Wolfgang | Portland, OR  
 Greg Woodall | Hurricane, UT  
 Slim Woodruff | Grand Canyon, AZ  
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## DEAR FRIENDS

# Read with High Country News

**WE'RE KICKING OFF A SUMMER OF READING** with *High Country News*! My previous appeals in these pages for ways to connect with readers have — who would have guessed? — returned suggestions that involve more reading. Reading groups, book clubs, events with authors — all great ideas we may yet attempt!

No one suggested *HCN* launch a reading contest akin to the Xeroxed sheets local libraries hand out to encourage children to keep their noses in books over the summer — but that's why I get to keep some credit for the idea.

The game is simple: Each square in the 4-by-4-inch card opposite this page contains a prompt. Fulfill a prompt, claim the square. Fill out a whole row or column, and you win! Like a library program, the love of reading and fun of participation is augmented by the lure of prizes. Send a photo of your card to [dearfriends@hcn.org](mailto:dearfriends@hcn.org) or post it on social media with the hashtag #HCNSummerReading (publicly, I need to be able to find it), and you'll get an *HCN* prize pack.

Helping me with this is *HCN*'s new contributing editor for books, culture and commentary, **Melissa Chadburn**. Since Melissa will be shaping how *HCN* covers books — as well as being a talented writer, a Ph.D. candidate in USC's creative writing department and releasing her own debut novel, *A Tiny Upward Shove*, this year — she's the perfect partner for this endeavor. Look for the ones signed MC to follow her prompts.

Thank you also to **Marissa Garcia**, who designed this page and was my sounding board, and illustrator **Gabriella Trujillo**, who went above and beyond to make the card a beautiful reality.

You'll note that some prompts don't require any reading at all, and the ones that do allow for interpretation. We wanted this to fit nicely into all the reading and not-reading you're already doing this summer — just with an *HCN*-y nudge.

So have at it! Let us know which prompts you liked best and the best reads to come out of it, and send in photos of your cards in exchange for bookmarks, stickers and whatever else we find.

—Michael Schrantz

Download a PDF of this card at [hcn.org/summer-reading](http://hcn.org/summer-reading)



# #HCN Summer Reading



READ a BOOK that INTERROGATES POWER.

MC



READ a BOOK from the POINT of VIEW of a NONHUMAN ANIMAL

MC



Keep a reading diary/journal

MC



READ a WORK of NONFICTION that WILL BRING YOU JOY

MS



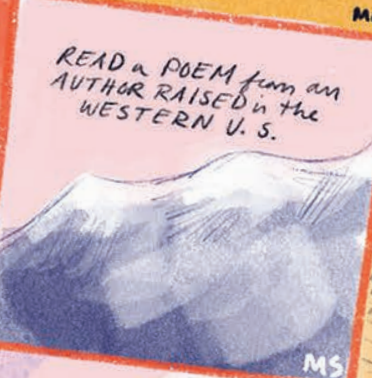
MARK HOW LONG YOU'VE BEEN READING by SHADOWS

MS



What is a genre you don't usually read?  
Read in that genre.

MC



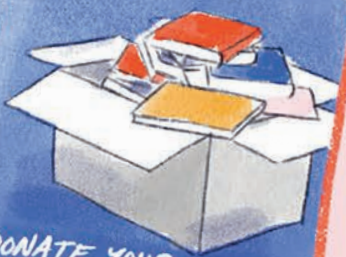
READ a POEM from an AUTHOR RAISED in the WESTERN U.S.

MS



LEND YOUR 3 FAVORITE BOOKS out to 3 DIFFERENT PEOPLE.

MC



DONATE YOUR OLD BOOKS

MS



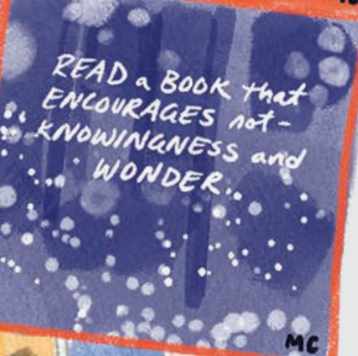
READ a TRANSLATION

MS



READ a BOOK that PLAYS with FORM.

MC



READ a BOOK that ENCOURAGES not-KNOWLEDGINGNESS and WONDER.

MC

READ a BOOK that TEACHES YOU ABOUT



a PLACE YOU KNOW WELL

MS

FIND a BOOK that STARTED as an ARTICLE. READ the ARTICLE.



MS



Write a book review.

MC



BUY a NEW RELEASE from an INDIGENOUS or BIPOC AUTHOR.

MS

# SALMON IN TROUBLED WATERS

How the collapse of the Cypress Island salmon farms reshaped the landscape of Northwest aquaculture.

By Douglas Frantz and Catherine Collins | Illustrations by Alex Boersma

## “SKAGIT 911. WHAT IS YOUR EMERGENCY?”

“I’m not quite sure if this is a 911 emergency or not, but my husband and I are on our boat in Secret Harbor, and the middle fish pen is breaking apart, and we don’t know who to call,” Jill Davenport told the 911 operator for the police in Skagit County, about a hundred miles north of Seattle, Washington.

“What do you mean by the middle fish pen?” the operator asked.

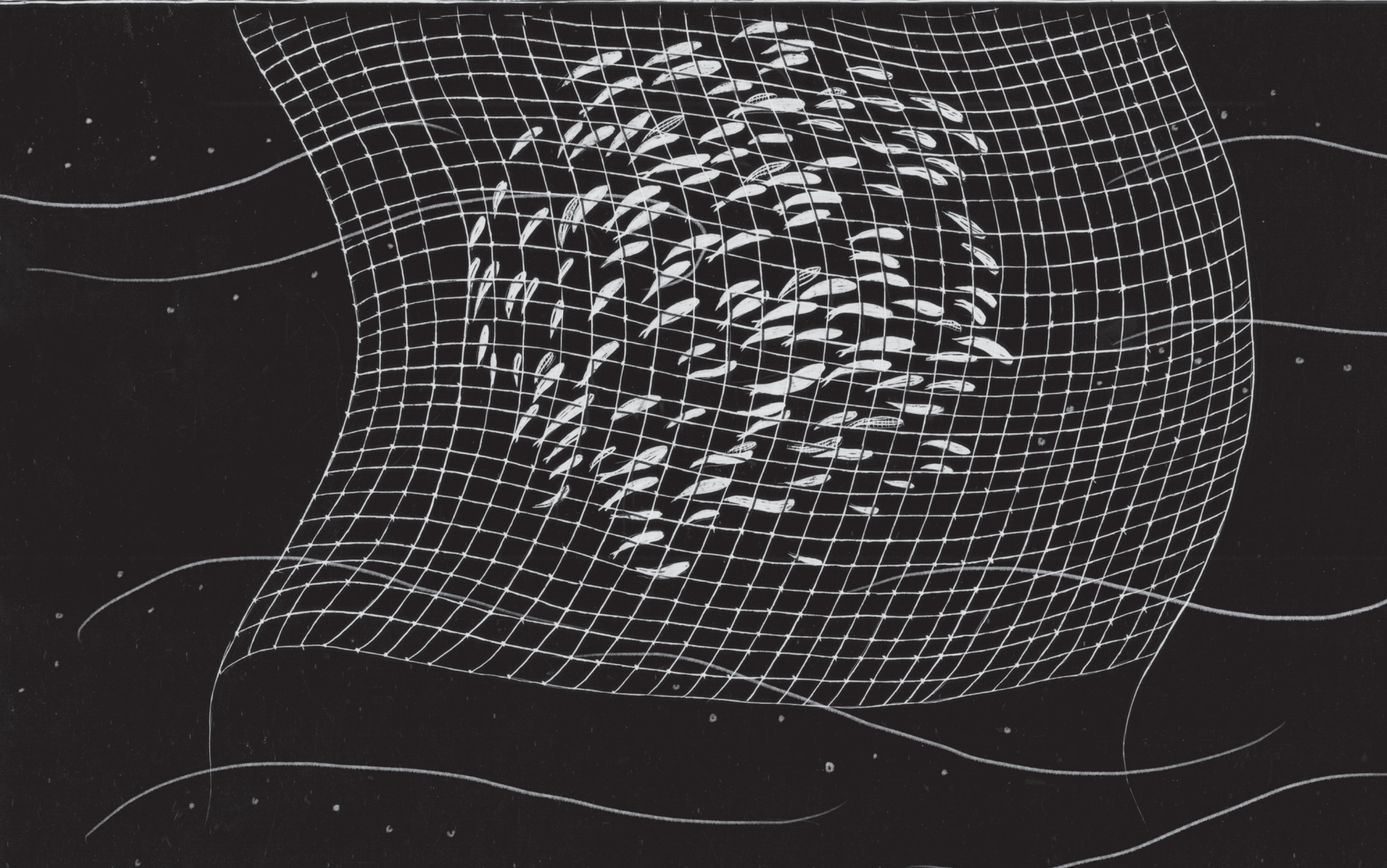
“In Secret Harbor, on Cypress Island, there’s three fish pens,” Davenport explained calmly. “There’s a bunch of equipment and stuff that, like a forklift and generators and stuff, that are potentially going into the water. And we don’t see any humans around. It’s huge, and the whole thing is buckling. There’s a forklift that looks like it’s about ready to go in the water.”

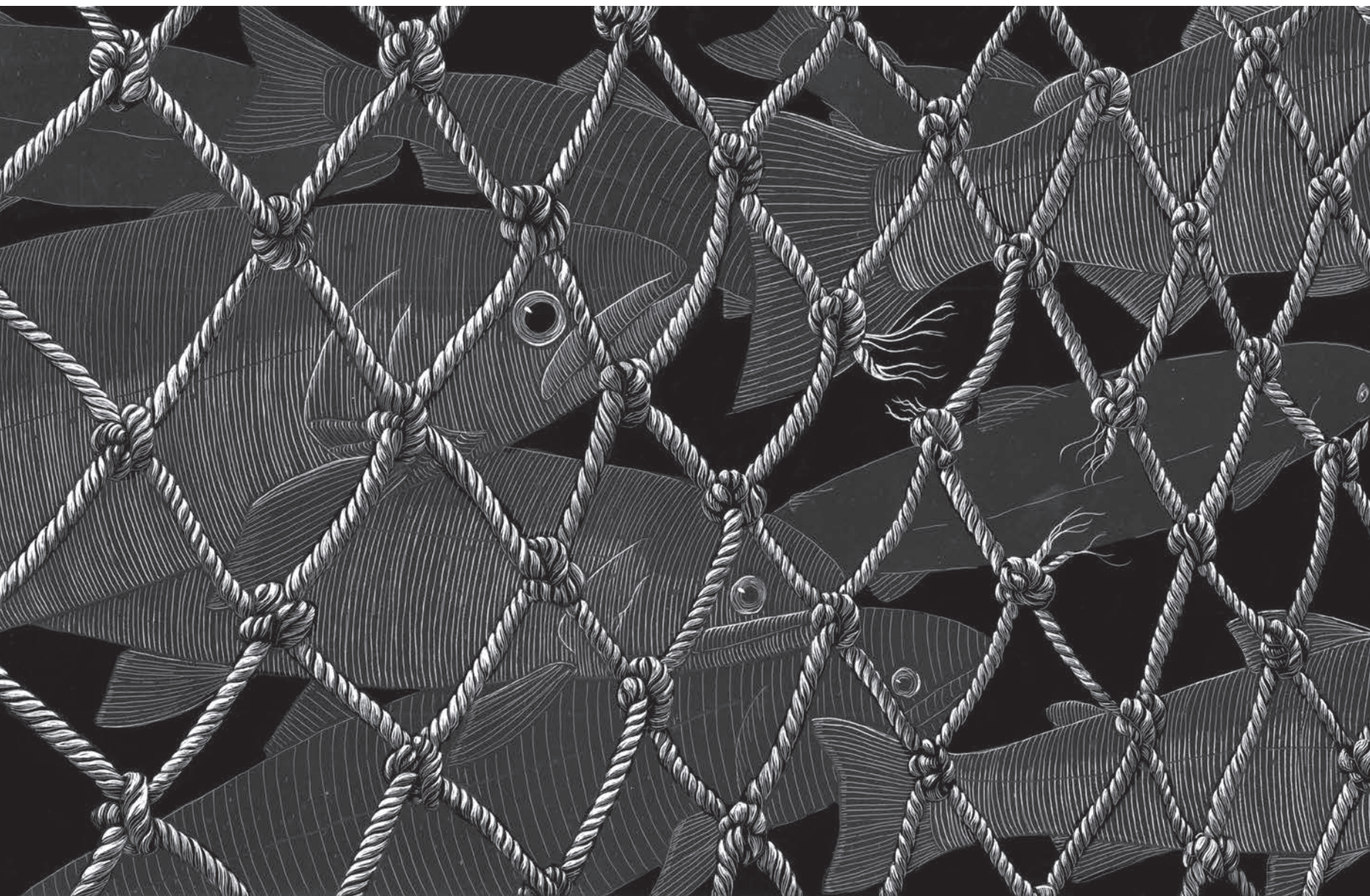
“We are passing that information along,” the operator replied.

Davenport and her husband, Jeff, were on their way with

their young children to set crab pots off Cypress Island, a largely undeveloped island in Puget Sound about halfway between the mainland and offshore San Juan County, at around 3 in the afternoon on Saturday, Aug. 19, 2017. As they approached Cypress Island, they heard a loud clank from one of the three salmon farms. They turned and saw a thick chain drag across the metal walkway linking the 10 cages that formed one of the farms. As they watched, the underside of a cage rose out of the water, its nets covered with a thick layer of mussels and kelp. Davenport thought to herself, “When you see seaweed, something is seriously wrong.”

The farms were known as Sites 1, 2 and 3. They consisted of floating steel rafts linking 10 individual cages, arranged in two rows of five cages each. The floating collection of cages, known as net pens, was held in place by a mooring system composed of chains and ropes attached to concrete anchors on the seabed. Cooke Aquaculture, a Canadian company, had acquired the farms and five others in Puget Sound off the Washington state coast a year earlier. Already





the dominant salmon farmer in Maine and New Brunswick and active in Chile and Scotland, Cooke was executing its plan for a major expansion in the Pacific Northwest. Cooke had grown aggressively to become the largest privately owned salmon-farming company in the world, but that drive to dominance was about to hit a roadblock.

The current was dragging the entire assemblage south, threatening to pull apart all 10 cages and the metal structure holding them together. Davenport turned her phone toward the farm and took video footage of the buckling cages. She could not see beneath the water, where some of the 10 anchor lines holding the farm to the seafloor were breaking loose, but the entire farm appeared to be on the verge of collapse. The landscape of salmon farming in Puget Sound was about to change dramatically.

**THE SLABS OF REDDISH FLESH** you've seen at the grocery store seafood counter have nothing to do with pristine waters or muscular salmon navigating upstream and everything to do with the industrialization of food in today's world. Once upon a time, millions of wild salmon seasonally surged up rivers along the Pacific and Atlantic coasts to spawn. In the places they've been historically abundant, they became the backbone of people's lives, including for Indigenous people in North America.

Today, 90% of the salmon consumed by North Americans is farmed Atlantic salmon, raised in floating feedlots in Canada, Scotland, Norway, the United States and Chile; the remaining 10% is mostly wild-caught Pacific salmon from Alaska, one of the few places where wild salmon are still fished commercially. Farming Atlantic salmon in the Northwest threatens

one of the few remaining strongholds for wild salmon.

It's not the first threat salmon have faced. Beginning during the Industrial Revolution in the late 1700s, waste was dumped directly into rivers and streams, and the seemingly inexhaustible stocks of salmon began to decline across Europe. By the mid-1800s, numbers were reduced further by commercial fishing and the construction of dams and mills that destroyed habitats and blocked salmon rivers. In recent decades, the climate crisis has warmed the oceans and rivers, industrial and municipal pollution has poisoned waterways, deforestation and chemicals like DDT have spoiled habitats, and intensive overfishing has decimated wild populations.

And in the past 40 years, a new threat emerged in the form of industrial-scale salmon

farms in fragile coastal regions along salmon migration routes. The primary means of farming salmon is in large cages suspended in the ocean, known as open-net farms. Once seen as a means of taking pressure off overfished wild salmon, these farms turned out to pose a new, man-made danger.

These floating feedlots have made salmon one of the world's most popular and inexpensive fish and have created a \$20 billion global industry. In Asia, North America, the United Kingdom and Europe, what was once a luxury in restaurants or reserved for special occasions at home is eaten at millions of meals a day. A decade ago, salmon replaced tuna as the most popular fish in the American diet, second only to shrimp in seafood consumption.

But availability and cheapness come at great cost. What you consume today is not your parents' salmon; instead, it is bred to grow fast, raised in crowded pens, and fed a diet of dried pellets made from smaller fish and grains and laced with chemicals. Industrial-scale farms in coves and bays off the coasts of Norway, Scotland, Chile and Canada harbor millions of salmon in cages. Along the Northern coasts of the U.S., Cooke Aquaculture has bought up similar farms and sought opportunities to expand operations.

Wild salmon are a barometer of the planet's health. They can survive only in clean, cool water, and their presence in a river has traditionally signaled to anglers that the water is safe to drink. They embody the idea of a keystone species, the animal whose existence holds the rest of the ecosystem together. If they disappear, it's a threat to more than just recreational fishing. It's a sign that life on Earth as we know it is changing in drastic ways.

The only barrier between the farms' cages and the wild salmon outside is a net that allows the ocean to flush the pens. Excess feed, chemical residue and fecal matter form a layer of slime on the seabed below the farms, smothering marine life and plants. Parasites and pathogens proliferate in the crowded cages and spread disease to wild fish. Hundreds of thousands of farmed fish escape each year, competing with wild salmon for habitat and food and interbreeding to produce hybrid fish too weak to survive. Quite simply, the rise of salmon farms demonstrates the hubris in, and the price to be paid for, transforming a natural biological process into an industrial operation.

**ABOUT 15 MINUTES** after Jill Davenport's 911 call, as their boat idled near the unfolding disaster, she spotted a worker and called out to him. He waved and shouted that he had called his boss and that help was on the way. A few

*Wild salmon are a barometer of the planet's health. ... If they disappear, it's a threat to more than just recreational fishing. It's a sign that life on Earth as we know it is changing in drastic ways.*

minutes earlier, Daniel Farias, the lone weekend worker, had telephoned Sky Guthrie, the site manager, and urgently told Guthrie that walkways at Cypress Site 2 were buckling. He said he thought the entire structure could break loose and collide with one of the two other 10-cage farms in the cove.

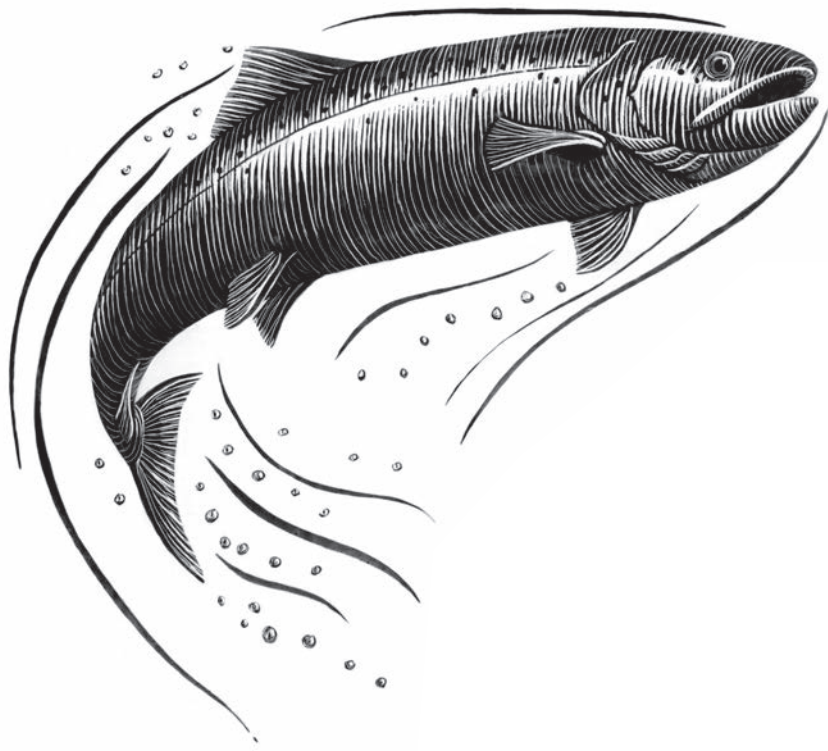
"It's really bad," Farias said.

Guthrie got to the farm about 20 minutes later. Immediately, he knew his co-worker had underestimated the situation. Walkways had twisted; some were submerged. Equipment had fallen into the water, and the large generator that provided electricity to the site was about to slide into the sound. A metal footbridge linking a floating office to the 10 cages had broken loose. Nets were close to tearing open, about to send tens of thousands of Atlantic salmon into waters that were home to Pacific salmon. More workers arrived shortly after. Guthrie got back on the phone and tried urgently to hire tugboats to stop the slowly drifting site from breaking apart completely and colliding with the two other farms, which were a few hundred yards away and filled with thousands of fish.

Just as onlookers cannot take their eyes off a train wreck, the Davenports watched from their boat as workers struggled to pull two portions of the heavily damaged middle cage out of the water. The *Lindsey Foss*, one of the first tugboats to arrive, got there a few hours after Davenport's call. It maneuvered in order to swing in close to the pen, so workers could attach a line to the steel structure and allow the tug to try to pull the farm back into shape. As the *Lindsey Foss* neared the farm, its captain peered into the water from the ship's bridge. He saw nets below the surface heavily clogged with mussels, kelp and seaweed. Instead of allowing water to pass through the cages, the fouling had turned the nets into massive sails that were being pushed by the current and tide. The bigger the blockage, the larger the sails and the greater the chance of the site breaking loose entirely from its anchor cables.

The risks of clogged nets were well known among salmon farmers and state officials in Puget Sound. Those risks were the reason Cooke's lease with the state required the company to maintain its farms in clean and safe condition, with regular inspections and net cleanings. Later reports would show that the accumulation had occurred over many weeks.

A second tug soon joined the *Lindsey Foss* and began pulling from another direction to try to hold the farm together. The second tug lowered a boom to the deck of the farm and lifted away the forklift, which had been perilously close to going into the water.



While she and her husband watched the drama unfold, Davenport received calls from the county emergency services office, the state Department of Ecology and the U.S. Coast Guard. Everyone wanted to know how bad things were. Bad, she replied. Davenport had the impression that the officials on the other end of the calls did not understand the size of the salmon farm or the potential environmental danger. She had emailed photos to the Coast Guard at about 4:30 p.m., but hadn't seen any government vessels by 7 p.m., when the family headed home.

Guthrie and his crew worked alongside the two tugs through the night. Early Sunday morning, the structure was stable enough for workers to begin removing salmon from the damaged cages by hand. Divers were sent down to try to reattach the mooring chains that had broken loose from the anchors. But when the tide came in, more chains broke loose, the heavily fouled nets dragged along the bottom, and twisted walkways flipped as the site shifted position completely. Two cages tore open as the stress on the nets mounted ... then four ... then six. The site was no longer safe. The workers were ordered off. While the tugs struggled to avoid a total collapse, the effort turned into a salvage operation. Guthrie and his coworkers watched helplessly as tens of thousands of farmed salmon began escaping into Puget Sound. Site 2 was destroyed.

**LEADERS OF THE LUMMI NATION**, the original inhabitants of the northernmost coast of Washington, immediately recognized the

*Tribal fishers from Lummi and Samish First Nations caught 55,000 Atlantic salmon in an organized effort to stop the fish before they entered rivers and streams on tribal land.*

threat posed by the escaped Atlantic salmon. About 5,000 tribal members live on the Lummi Reservation, which sits on a peninsula across from the island about 100 miles north of Seattle. The tribe's director of natural resources, Merle Jefferson, says, "The Lummi are salmon people; salmon is culture, and culture is salmon." The decline of wild salmon endangers Lummi culture and livelihoods, and the tribe has been involved in many efforts to protect and restore the fish. They declared an emergency and urged tribal fishermen to catch as many Atlantic salmon as possible to protect the native species from disease, interbreeding and simply being eaten by the invaders.

Meanwhile, some state officials appeared unable to decide whether the escaped Atlantic salmon posed a threat to wild Pacific salmon. On Aug. 23, the Department of Fish and Wildlife encouraged anglers to catch as many of the escaped Atlantic salmon as they could, to protect wild salmon, and they asked fishermen to report the number caught and their location. The alien fish were easy to spot because they are larger than their Pacific cousins and have distinctive black spots on their backs. In the same press release, however, the head of the department's fish program, Ron Warren, contradicted any suggestion that Atlantic salmon posed a threat to native fish. Warren said no evidence existed that the Atlantic salmon were a danger to the Pacific salmon and that there was no record of the two species interbreeding in Washington's waters.

Despite Warren's attempt to smooth the waters, the danger posed by farmed salmon to wild salmon cannot be dismissed so easily. Wild Pacific salmon and farmed Atlantic salmon are genetically different. Wild salmon have adapted over generations to changes in local river conditions like temperature, flow rates and acidity levels in the water. Farmed fish, however, have been bred for fast growth in a closed environment, not for their ability to adapt. The negative effects of this divergence are well documented. Studies have shown that the interbreeding of farmed salmon with wild salmon lowers the fitness of the hybrid offspring, weakens their ability to survive, and eventually reduces the overall wild population.

Another risk that farmed Atlantic salmon pose to wild Pacific salmon is the spread of parasites, viruses, and diseases not found in the native salmon or in the waters in which they swim. For example, a study published in *Virology Journal* after the Cypress Island collapse estimated that 95% of the escaped Atlantic salmon were infected with an exotic variant of piscine orthoreovirus, or PRV, which

had never been documented previously in Puget Sound waters. PRV causes heart and skeletal inflammation in salmon, which can lead to death. The virus apparently came from salmon eggs imported from Iceland. A different study by a team of Canadian scientists, including from the federal Department of Fisheries and Oceans, determined that the virus arrived in the northwestern Pacific around 30 years ago, roughly the same time the first salmon farms showed up in British Columbia. The study said that evidence showed the virus had been transmitted from farmed salmon to wild Pacific salmon, where the disease had never been found before.

**EVENTS UNFOLDED QUICKLY** in the days after the failure of Cypress Island Site 2, creating a tsunami of challenges for Cooke Aquaculture. Facing a public outcry and government investigations, Cooke denied responsibility for the incident and instead blamed natural causes. The company also downplayed the number of escaped fish and their potential impact on wild salmon.

A solar eclipse occurred on Aug. 21, two days after the start of the collapse. Cooke claimed that it was the high tides and currents leading up to the eclipse that had torn apart the farm. “Tides and currents and tidal surges in the last weeks have been very strong,” Nell Halse, Cooke’s vice president of communications, said on Aug. 21. “Our people are out there every day, and that is what they have been seeing. The tides were extremely high, the current 3.5 knots. People can believe it or not.” When it came to the wild

Pacific salmon population’s imperilment by the escaped fish, Halse was dismissive. “It’s primarily a business loss,” she said. “The salmon will be food for the seals, and the fishermen can enjoy them.”

The same day, the company filed its first official report on the escape of the salmon with the state, estimating that “upwards of 4,000 fish may have escaped.”

Cooke’s initial attempt to point the finger at the eclipse fell apart for the simple reason that the tides were not unusually robust when the Cypress Island site collapsed. When she was on the scene in her boat, Jill Davenport saw no indication that the tides were responsible. “It has been suggested that the implosion was caused by unusual tides and currents,” she wrote in an unpublished letter to her local newspaper in Anacortes, Washington. “Since we were right next to the pens and not experiencing anything abnormal, I don’t believe either to be a legitimate cause.” Tidal data and scientists also debunked Cooke’s attempt to blame high tides and currents.

In addition, the farm’s location, in a protected bay only a few hundred yards from shore, diminished any tidal effects. The tide was strongest farther out in the channel. Adding to the dubiousness of the company’s explanation, the site had broken apart before the strongest tides arrived with the eclipse on the 21st. Later, the state would declare that professionally designed and maintained salmon pens should have been able to withstand much stronger tides than those recorded on Aug. 19 and 20.

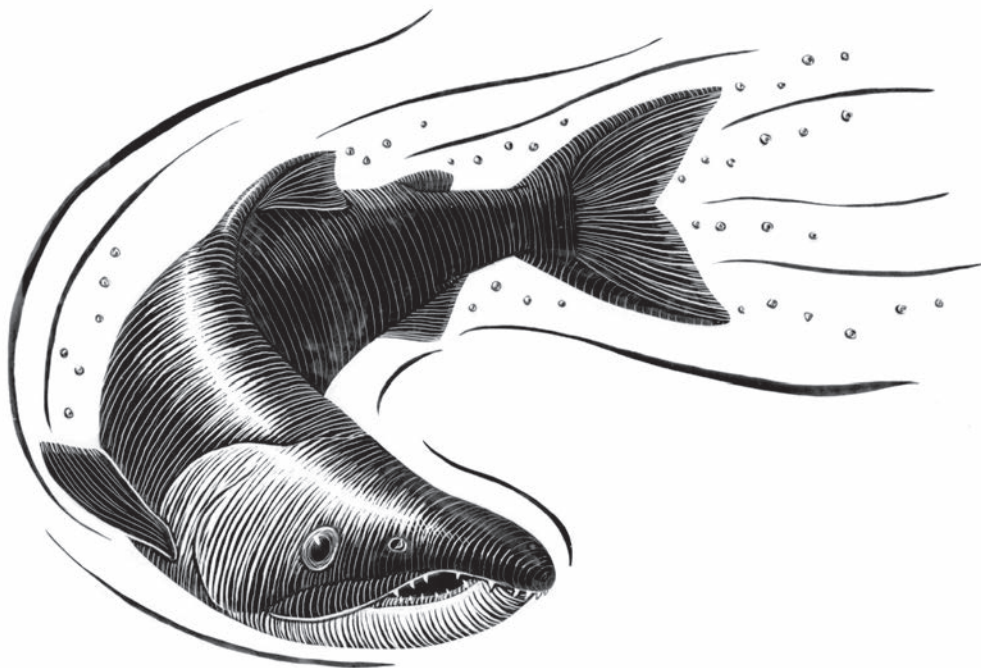
Even as Cooke was forced to back away from its claim that the solar eclipse was to blame, it refused to acknowledge that tens of thousands of fish had escaped.

**IN THE DAYS AFTER THE FARM FAILED**, hundreds of Atlantic salmon were caught in Puget Sound and nearby rivers and streams. Many anglers reported seeing large numbers swimming free in the water. “Fish continue to hug the beach in large schools,” one angler told the state. “They seem to prefer staying in the sheltered bays.” Ten fish were spotted near Lummi Island, 8 miles from the collapse. Seals and eagles were feasting on dead Atlantic salmon that had washed ashore all along the coast of the sound.

On one day of fishing, Lummi fishermen at the mouth of the Nooksack River, north of Seattle and far from Cypress Bay, landed dozens of Atlantic salmon that appeared to have been deformed or damaged in the farm’s collapse. When some of the salmon were sliced open, the Lummi found enlarged and discolored organs: signs of disease. These were clearly alien fish that threatened the native salmon. In total, tribal fishers from Lummi and Samish First Nations caught 55,000 Atlantic salmon in an organized effort to stop the fish before they entered rivers and streams on tribal land.

In the wake of Cypress Island, Cooke Aquaculture faced sharp scrutiny of its safety practices. As part of a settlement to dismiss a lawsuit brought by local conservation nonprofits, Cooke agreed to pay \$2.75 million, in part to fund projects to protect wild fish in Puget Sound. It also agreed to upgrade its remaining facilities before restocking its remaining farms. In response to the public’s outcry over the collapse, the Washington Legislature passed a law to phase out open-net farming in the state, bringing its policies in line with the rest of the West Coast.

Still, impacts of the Cypress Island collapse will ripple across generations of salmon. Weeks later, Atlantic salmon were found 130 miles south, near Tacoma, and 250 miles north, near Vancouver Island in British Columbia. In several places, Atlantic salmon were caught with small native salmon in their bellies. The mass escape from Cypress Island had coincided with spawning season. ❁

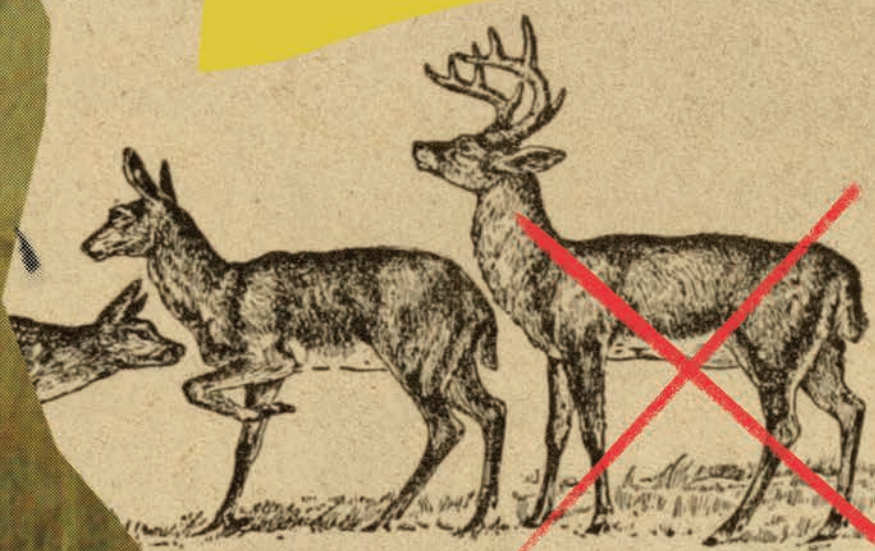


*This story is excerpted from Salmon Wars: The Dark Underbelly of Our Favorite Fish by Douglas Frantz and Catherine Collins, to be published this month by Henry Holt and Company and used with permission.*



WIND RIVER INDIAN RESERVATION  
CLOSED TO HUNTING, FISHING, J.  
TRAPPING, AND TRESPASSING ISSUED BY  
PAHO TRIBES  
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# PERMISSION TO POACH

Three years ago, the Supreme Court upheld the Crow Tribe's off-reservation hunting rights. But treaty hunters in Wyoming still risk prosecution, even as non-Natives poach wildlife on tribal land with impunity.

By Savannah Maher | Illustrations by Neu Tokyo

**ALONG THE EASTERN FOOTHILLS** of Wyoming's Absaroka Mountains, halfway between Crowheart and Dubois, a weathered buck-and-rail fence separates tribal land from public land. To the east lies the Wind River Reservation and the jurisdiction of tribal game warden Justin Friday. On a clear fall morning in 2020, Friday's ATV zipped along a dusty two-track on the national forest side of the fence.

It had been a hot, dry summer. The East Fork of the Wind River was a narrow band of green, snaking through tangles of sagebrush and bunchgrass that, a few miles up, gave way to towering lodgepole forest.

"Up here is the reservation boundary," Friday shouted over the engine. A sign on the tribal side read: WIND RIVER INDIAN RESERVATION CLOSED TO HUNTING, FISHING, TRAPPING AND TRESPASSING.

Friday was retracing the path of Matthew Harris, who would have hiked past the sign in October 2017. Harris, a special agent with the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives, worked at the agency's satellite office in Lander and was out that day hunting.

Friday parked and hiked a short way uphill, over a break in the fence where wildlife often crossed. In a clearing, he found what was left of Harris' kill after three years: the sun-bleached skeletal remains of a bull elk. Most of the animal's ribcage and two femurs remained, but the skull and antlers — the parts a hunter might take to display at home — were gone.

According to the Shoshone and Arapaho Fish and Game Code, only Eastern Shoshone and Northern Arapaho tribal citizens with the proper permits and tags may hunt on the reservation. Harris met none of those requirements when, according to federal investigative reports obtained by *High Country News*, he aimed his .338 caliber rifle across the fence and fired twice at some elk.

If this story sounds familiar — a law enforcement officer downing an elk on the wrong side of the border between tribal land and a national forest in Wyoming — you're probably thinking of Clayvin Herrera, a former Crow tribal game warden who made headlines asserting the tribe's treaty right to hunt on the "unoccupied land of the United States." Herrera was convicted of two misdemeanors for shooting elk in the Bighorn National Forest in 2014. The resulting legal battle went all the way to the U.S. Supreme Court, which, in 2019, decided in Herrera's favor, a landmark decision affirming the tribe's off-reservation hunting rights in Wyoming. (In early 2021, Herrera was charged with other offenses unrelated to poaching.)

Eight years later, however, Wyoming is still working to uphold Herrera's original convictions.

Harris' alleged crime — the mirror image of Herrera's — never received comparable attention. Despite physical evidence and an eyewitness account, state and federal attorneys declined to prosecute. And, as of late March, Harris was still employed by the ATF, a federal agency that investigates crimes involving firearms.

**A FEW WEEKS AFTER REVISITING** the elk bones, Friday pulled over two white men in a red truck hauling an ATV, following a tip about non-Natives driving along a mountain road reserved for tribal members. Body camera footage shows Friday lowering the volume on a talk radio show, getting out of his truck and greeting them.

"You guys are on the reservation," Friday told them. "You're trespassing."

"Bullshit," the man in the passenger seat replied. "I'm not putting up with this shit."

Friday called this response "typical" of his interactions with white Wyomingites. Out-of-staters speak to him in the way you'd expect: Yes

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*This piece was produced in partnership with Type Investigations.*

*sir, thank you sir, we'll get out of here right away.* But locals can get belligerent even before he explains what they've done wrong. He thinks being confronted by a Native person in a position of authority makes them upset.

"I know the law way better than you do, and we're gonna leave," the passenger said, leaning toward Friday and pointing in the direction they were already headed. "The fuck are you gonna do?"

Stops like this one, often prompted by tips from tribal hunters, are one of the department's tools for catching trespassers and poachers. So are trail cameras, placed strategically near the reservation's borders, where they might photograph a poacher's face or license plate number — anything that might merit an investigation and, eventually, prosecution. Friday suspected that non-Natives trespassed almost daily on the reservation during hunting season, and the cameras and tribal hunters' accounts appeared to confirm this.

"Most of the people doing this, they're repeat offenders," he said. "Every year, we get tribal members reporting the same names consistently."

Sometimes, in violation of the game code, a Shoshone or Arapaho hunter brings a non-Native friend along on a hunting trip. More often, though, Friday said, the poachers come on their own. Most are lifelong hunters from Dubois, Lander or Thermopolis who aren't satisfied with the hunting tags they've drawn.

Friday and his boss, Art Lawson, archive poaching evidence at the Shoshone and Arapaho Fish and Game Department office, a one-story building tucked behind the grocery store in Fort Washakie. It's about two hours from the East Fork area and about the same distance in the opposite direction from the other poaching hotspots. Lawson's department is tasked with patrolling the land, checking hunters' permits, and compiling evidence to refer cases for prosecution. But he said the agency is underfunded and understaffed, with, at most, three wardens responsible for 2.2 million acres, an area the size of Yellowstone National Park.

"But if one of my guys is patrolling out on the East Fork and he gets a call about someone on the other side of the mountain, it's gonna take him five hours to get over there, minimum," Lawson said. "We're not going to catch everybody."

Even when poachers are caught in the act, prosecution isn't easy. In 1978, the U.S. Supreme Court stripped tribal courts of jurisdiction over non-Indians who commit crimes on tribal lands, leaving federal authorities to prosecute such offenses in most cases.

**"If one of my guys is patrolling out on the East Fork and he gets a call about someone on the other side of the mountain, it's gonna take him five hours to get over there, minimum. We're not going to catch everybody."**

At the office, Lawson and Friday thumbed through the case files of habitual poachers: investigative notes, blurry cellphone photos from tribal hunters and grainy trail-camera stills. In one set of black-and-white images, Friday pointed out what might have been an animal's body in the back of a pickup.

"There's an elk horn, a bull elk, on the back of the flatbed," Friday said. But the photo was taken at night, so it's hard to be sure, and the federal attorneys in Cheyenne chose not to prosecute.

"I can kind of understand why they declined this one, because all we have are these blurry pictures," Friday said.

Given their lack of resources, Lawson and Friday said they rarely build a strong-enough case to send to the U.S. attorney's office; the handful of cases they've referred have been dismissed for lack of evidence. Tribal fish and game and the U.S. attorney's office agree that the gold standard for prosecution is an eyewitness account combined with physical evidence. Lawson and Friday felt they had both in the Harris case, and that's what made the outcome such a blow.

"We had an eyewitness who actually stepped forward and said, 'Hey, I saw this guy poach on the reservation. I know where the elk is. I know where the shell casings are,'" Friday said. "We just don't get that normally."

**BEFORE DAWN ON OCT. 7, 2017**, Harris and Michael Kowach, his hunting partner, left Lander, Wyoming, for the East Fork area. Kowach is a local who, according to a report prepared by the U.S. Fish and Wildlife Service, met Harris while working as an informant for the ATF's Lander office on a firearms trafficking case. Reached by phone, Kowach said that Harris, who had moved to Lander from Wilmington, North Carolina, was excited about hunting in Wyoming. (HCN repeatedly attempted to contact Harris for comment; he did not respond.)

"From the impression I got, he was a novice hunter from back East," Kowach said. "He'd hunted whitetails every once in a while, but as everybody knows, hunting back East sucks."



Kowach, who was born and raised in Wyoming, speaks with brusque authority about hunting regulations and the best tag zones, where you can find "piles" of elk or mule deer, though patience and skill are still needed to bag one.

When Harris called Kowach for help filling an elk tag in the East Fork area, Kowach agreed and used GPS to ensure they didn't accidentally cross over onto reservation land. The buck-and-rail fence was also there to mark the boundary.

Before long, they spotted a herd of elk on the

U.S. Department of Justice  
Office of the Inspector General

**REPORT OF INVESTIGATION**

SUBJECT Matthew L. Harris Special Agent Denver Field Division Lander, Wyoming		CASE NO. 2018-0
OFFICE CONDUCTING INVESTIGATION Tucson Area Office	DOJ COMPONENT Bureau of Alcohol, Tobacco	
DISTRIBUTION <input checked="" type="checkbox"/> Field Office <input type="checkbox"/> DNFO <input checked="" type="checkbox"/> AGENY <input checked="" type="checkbox"/> Component <input type="checkbox"/> ATF <input type="checkbox"/> USA <input checked="" type="checkbox"/> Other <input type="checkbox"/> USFWS	STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> OPEN PENDING PROSEC PREVIOUS REPORT SUBMITTED: <input type="checkbox"/> Date of Previous Report:	
<b>SYNOPSIS</b>		
<p>The Department of Justice (DOJ) Office of the Inspector General (OIG) initiated receipt of information from the Bureau of Alcohol, Tobacco, Firearms and Explosives on October 7, 2017, in Wyoming. ATF Special Agent Matthew L. Harris illegally located within the Wind River Reservation (WRR) and then trespassed into the reservation to locate the animal. The ATF was notified of the incident by the U.S. Fish and Wildlife Service. The OIG conducted this investigation jointly with the USFWS, the Shoshoni and Arapaho Fish and Game Department (SAFGD), and the Wyoming Game and Fish Department (WYGFD).</p> <p>During the course of the investigation, the OIG found indications that Harris may also have removed his legally required protective hunting clothing to conceal his trespass on the WRR and then abandoned the wounded elk. Additionally, the OIG found indications that Harris may also have encouraged another ATF special agent visiting and hunting with him in Wyoming to illegally shoot a mule deer doe; submitted false time and attendance reports to ATF; and lacked candor during his OIG interview.</p> <p>The OIG investigation substantiated the allegation that Harris illegally shot a bull elk on the WRR and after he shot it, trespassed onto the reservation in an attempt to locate the wounded elk in violation of 18 U.S.C. § 1165, Hunting on Indian Land and Shoshoni and Arapaho Law and Order Code § 16-8-11, Illegal Hunting by a Non-member. While trespassing and attempting to conceal his presence on the WRR while searching</p>		
DATE: October 25, 2019	SIGNATURE: 	Digitally signed by James D. GREER Date: 2019.10.25 10:30:30 -0700
PREPARED BY SPECIAL AGENT JAMES D. GREER		
DATE: October 25, 2019	SIGNATURE: 	Digitally signed by SANDRA BARNES Date: 2019.10.25 14:00:25 -0400
APPROVED BY SPECIAL AGENT IN CHARGE SANDRA D. BARNES		

OIG Form 3181 (Supersedes OIG Form 3177-0) (04/25/2007)  
Portions of the Report of Investigation may be exempt under the provisions of Information Act (5 USC 552) and the Privacy Act (5 USC 552a)



tribal side, including two bulls that Kowach calls “absolute monsters,” meandering down the slope toward that break in the fence.

The two men tell different stories about what happened next. Kowach said he told Harris to just sit tight; eventually, the elk would wander over onto national forest land. But, according to Kowach, Harris took off running toward the elk. Kowach told *HCN* that he didn’t see Harris pull the trigger; he only heard the gunshots. But once he caught up with him, he saw one of those monster bull elk, wounded and bleeding out of its side.

By Kowach’s account, Harris was in the national forest when he shot. The elk, however, were on the reservation.

In interviews with federal, state and tribal investigators, Harris didn’t deny shooting the elk. Instead, he said that Kowach goaded him into shooting, and he pleaded ignorance of the reservation boundary’s location.

“Harris reasoned that fences in Wyoming do not always mean boundaries; they could be found through the middle of public lands dividing a cattle pasture,” a Department of Justice

investigator wrote in his report. But the investigator also found that Harris “lacked candor” regarding his knowledge of the boundary.

When Kowach told Harris that the elk he shot was on what he called “Indian land,” Harris said he experienced a “blur of panic.”

“Oh, it was heated,” Kowach said. By Kowach’s account, he insisted that Harris finish off the elk and turn himself in. While they argued, the wounded animal ran deeper into tribal forest.

“He was freaking out. ‘Don’t report me, don’t turn us in, don’t do this, don’t do that.’”

But Kowach felt he had to turn Harris in; he was friends with state game wardens and, according to federal investigative reports, had tipped off the department about previous wildlife crimes, sometimes helping the department catch violators in the act.

Kowach said he gave Harris a deadline to turn himself in. After three days, when Harris didn’t act, Kowach called the department himself, which contacted Lawson and Friday’s department in turn. But tribal Fish and Game couldn’t simply take over the case: Since Harris was non-Indian, tribal authorities lacked

criminal jurisdiction. So they brought in an agent with the U.S. Fish and Wildlife Service. Because Harris was a federal cop, the Justice Department’s Office of the Inspector General also conducted a parallel investigation at the ATF’s request.

A couple of weeks later, Kowach was interviewed by investigators from all four agencies. It was already late October, and snow covered the road to the East Fork. Friday feared that by the time it was passable, any evidence would be lost. Still, the following spring, Kowach led investigators along the two-track, past the boundary sign and up the mountainside to the shooting scene, where they found two spent cartridge casings that matched Harris’ rifle. A few hundred yards into the reservation, they found the remains of an elk.

**THE QUESTION OF WHO GETS TO HUNT** in the area has been fraught since white settlers arrived in what is now Jackson, Wyoming, in the late 1800s. Elk populations dwindled as homesteads increased. Meanwhile, the displaced Indigenous people continued to subsistence hunt in the area,

as their treaty rights allowed and as their ancestors had done for thousands of years.

But in July 1895, hunters from the Bannock Tribe awoke to find their camp surrounded by 27 armed white men, there to arrest them for hunting outside of Wyoming's recently imposed elk season. The Bannock party surrendered their weapons but, fearing for their safety, fled during the march to town. In the fray, an infant was swept off his mother's back and was never found. The homesteaders shot an unarmed Bannock elder four times in the back, and the surviving elk hunters raced back to Fort Hall. But a telegram from one white Jackson official to Wyoming's governor told a different story: "Many Indians reported here: threaten lives and property. Settlers are moving their families away. Want protection immediately. Action on your part is absolutely necessary." Wyoming newspapers and others across the country falsely claimed that the Bannock party had massacred

dozens of white families in Jackson.

The incident triggered a legal test case of the Shoshone-Bannock Tribes' off-reservation hunting rights. *Ward v. Race Horse* went to the Supreme Court, which in 1896 ruled that tribal treaty rights to hunt in the region had been nullified six years earlier, when Wyoming became a state.

For more than a century, Western states including Wyoming used *Ward v. Race Horse* to arrest Indigenous people exercising their off-reservation hunting rights, with federal courts reaffirming it as recently as the 1990s. But in 2019, faced with Clayvin Herrera's case, the Supreme Court agreed to reconsider it.

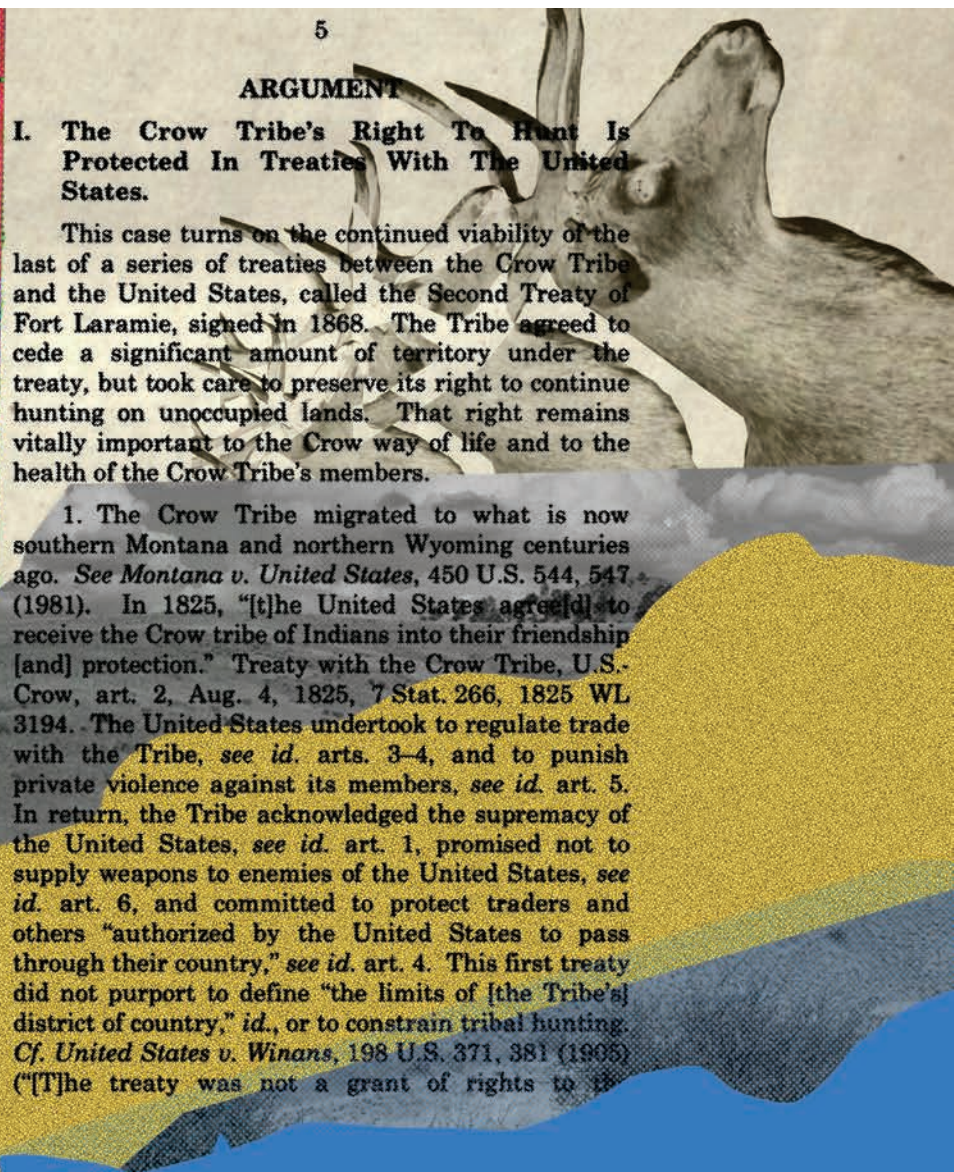
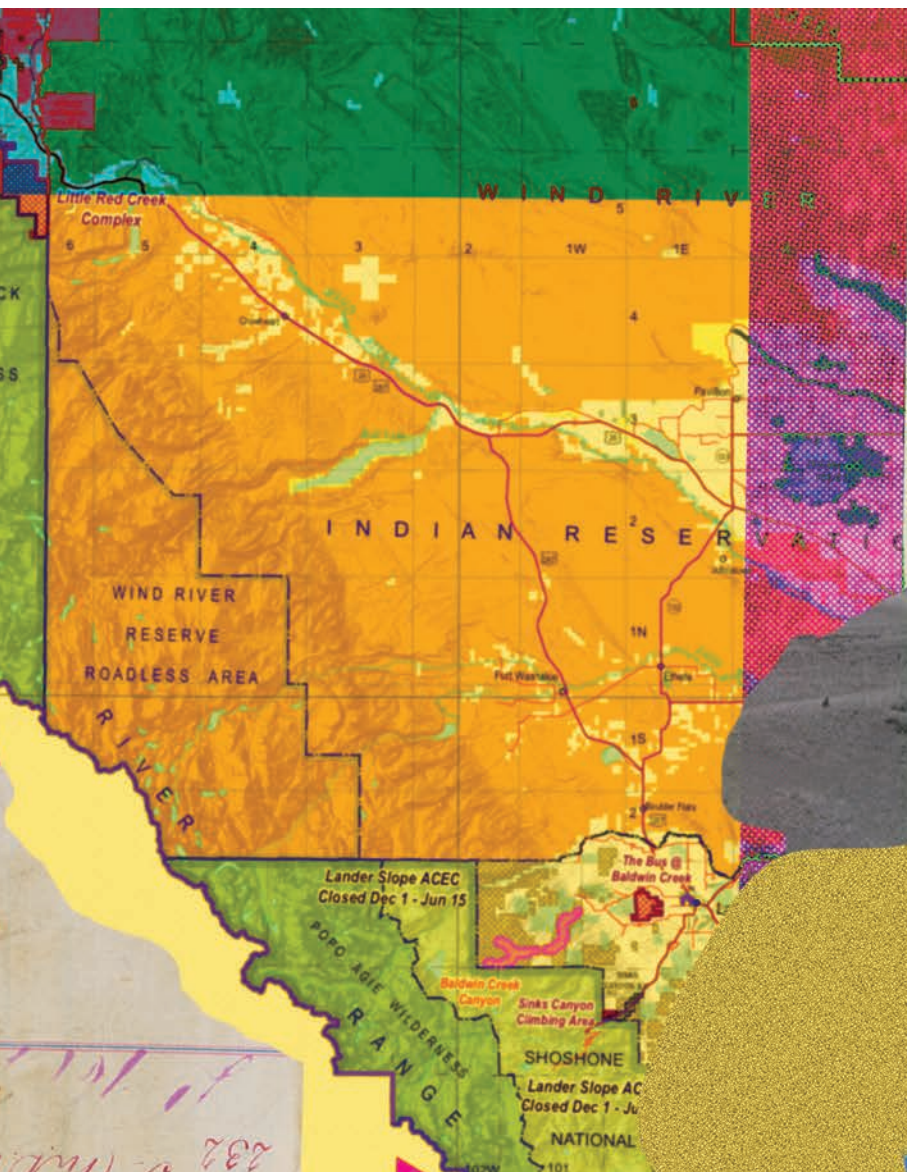
Heather Whiteman Runs Him (Crow), an attorney who helped defend Herrera before the court, said the stakes were high for Crow people, whose ancestral relationship to the Bighorn Mountains had been severed by *Race Horse*. The mountains, she said, are "absolutely pivotal to

our worldview as Apsáalooke people."

"There are a lot of people in our community who have believed in the ongoing viability of our treaty rights for their whole lives," she said. "And people who have sought to exercise those rights and done so at the risk of being prosecuted because they believe in the rights that our ancestors insisted on."

In 2019, the High Court ruled in Herrera's favor. Whiteman Runs Him called the decision monumental — "a fundamental step in beginning to restore and rebuild the relationship to the land."

For Indian Country, *Herrera* was a hard-won affirmation of perhaps the most important principle of Indian law: that treaties between tribal nations and the federal government are, as the U.S. Constitution declares, "the supreme law of the land." Treaties can only be abrogated or repealed by an act of Congress — not piecemeal by states that disagree with their provisions.



In its decision, the Supreme Court instructed lower courts to reconsider Herrera's convictions by answering two questions: Is the Bighorn National Forest "unoccupied" for the purposes of the treaty right, and are there conservation reasons to limit treaty hunting there?

But three years after *Herrera*, it's not clear that treaty hunters in Wyoming are any safer from prosecution than the Bannock party was in 1895, or Herrera in 2014.

In open defiance of the Supreme Court, Wyoming continued to argue that state courts should simply uphold Herrera's conviction under an old precedent.

"That is not at all what we expected, and it's highly unfortunate," said Dan Lewerenz (Ioway), an attorney with the Native American Rights Fund, which represents the Crow Tribe in the ongoing legal battle.

"The state of Wyoming is making superficial arguments to try to bring forward outdated rulings," Angelique EagleWoman (Dakota), director of the Native American Law and Sovereignty Institute at the Mitchell Hamline School of Law, said. "There is no rational reason (for Wyoming) to not follow the rule of law. It is in fact irrational to waste taxpayers' money and develop a reputation as reticent to follow the actual law of the United States."

An appeals court rejected Wyoming prosecutors' argument, and the state Supreme Court declined to hear the state's appeal in January, effectively ordering the state to abide by *Herrera*.

The Wyoming Attorney General's office declined repeated requests for comment and referred *HCN* to Gov. Mark Gordon's office, which refused interview requests about the state's legal strategy, but offered a statement.

"Wyoming is currently seeking to address the Supreme Court's decision while ensuring that all hunting within the state is subject to regulations that support the Governor's commitment to wildlife conservation in Wyoming," a governor's office spokesman wrote in an email.

For treaty hunters, Lewerenz said the state's legal strategy sends a clear message: If you exercise your right, you should expect to be prosecuted.

"There's room to talk about Wyoming's intransigence here," Lewerenz said. "Why did Wyoming spend two years trying to get the state courts to follow a Supreme Court dissent instead of a Supreme Court majority? Eight years on, why is it so important for them to continue to prosecute Clayvin?"

**THE JUSTICE DEPARTMENT'S OFFICE** of the Inspector General, or OIG, according to its website, investigates "alleged violations

**Herrera was a hard-won affirmation of perhaps the most important principle of Indian law: that treaties between tribal nations and the federal government are, as the U.S. Constitution declares, "the supreme law of the land."**

of fraud, abuse and integrity laws that govern DOJ employees." A Tucson, Arizona-based OIG investigator compiled a report to help the ATF decide whether Harris could keep his job.

Though that report was never made public, the copy *HCN* obtained reached a conclusion about Harris' actions after eight pages of evidence.

"The OIG investigation substantiated the allegation that Harris illegally shot a bull elk located on the WRR and after he shot it, trespassed onto the reservation in an attempt to locate the wounded elk," the report said.

According to the investigator, Harris broke federal, state and tribal laws on Oct. 7, 2017. He encouraged an ATF co-worker to poach a mule deer on public land in 2017 (and, according to the Fish and Wildlife Service report, he may have poached one himself).

Additionally, the investigator found evidence that Harris falsified ATF time and attendance records, once reporting that he'd worked 10 hours on a day he later admitted he was hunting.

But more was needed to charge him with a crime. And by July 3, 2019, nearly two years after the investigation began, the U.S. Attorney's Office for the District of Wyoming declined to prosecute Harris. Nicole Romine, current chief of that office's criminal division, cited two problems. First, she said, Michael Kowach's three sworn witness statements, taken months apart, had some "inconsistencies."

At least some of those are detailed in a Fish and Wildlife Service report. In October, Kowach told investigators that he never saw the elk Harris shot, but in January, he recalled seeing it bleeding from a wound in its side. The report noted that Kowach was initially "of the opinion" that the elk was on tribal land but later said he was sure of it.

Asked to explain, Kowach told investigators that he'd been scared of turning in a federal cop.

Romine said her office also faced jurisdictional hurdles. The Lacey Act, which federal authorities use to prosecute poaching on tribal land, is, in part, an anti-trespassing statute.

"We could have either prosecuted if we had sufficient evidence that Mr. Harris knowingly and willfully physically trespassed onto Wind River Indian Reservation land to hunt elk, or that he physically trespassed onto the reservation to retrieve that elk," Romine said.

Since Kowach and Harris agreed that Harris was on national forest when he fired, and in the absence of hard proof that he trespassed onto the reservation afterward, Romine said her office couldn't act.

Then, in September 2019, the Fremont

County Attorney's Office declined to prosecute Harris for his alleged state-level crimes. Patrick LeBrun, who heads that office, said it wasn't clear that it had jurisdiction, either.

"A goodly part of it was on the reservation," LeBrun said, where only the U.S. attorney's office has criminal jurisdiction over non-Natives.

To the tribal game wardens responsible for preventing poaching on Wind River but lacking criminal jurisdiction, it seemed like federal and state law enforcement were standing in a circle, pointing fingers at each other, while Harris dodged accountability. But Matthew Fletcher, a law professor and director of the Indigenous Law and Policy Center at Michigan State University College of Law, said that the law appeared to have been applied correctly.

"Assuming that what (the U.S. attorney's office) is saying is true, that *does* make it pretty close to impossible to prosecute a case," Fletcher said. Shooting "an animal across boundaries like that probably does not happen very often. It's almost like the perfect crime."

Still, according to Fletcher, the fact that Harris' alleged crime falls into a jurisdictional no man's land is cause for alarm.

A recent analysis by political scientists at the University of North Texas is the latest to show that federal prosecutors use their declination powers more liberally in cases that originate on tribal land. Between 2006 and 2016, federal prosecutors were 15% more likely to turn down cases originating in Indian Country than cases originating elsewhere.

This is due in part to the jurisdictional questions, which a group of former U.S. attorneys recently condemned as unwieldy and which the federal Indian Law and Order Commission calls an "indefensible morass of complex, conflicting and illogical commands" carried out by outside law enforcement without tribal input or consent.

**BY THE TIME HARRIS' CASE** was passed on for civil proceedings to a tribal prosecutor, it had been two years since his alleged crime. Already facing a backlog of cases and with the statute of limitations approaching, she turned it down.

At that point, Art Lawson played his last card: He mailed Matthew Harris a citation and a fine of \$650, the highest allowed under the Shoshone and Arapaho Law and Order Code and which Harris was not legally bound to pay. Harris paid swiftly.

"When it comes to wildlife violations, we're talking about a different socio-economic class of people," Friday explained.

A non-resident tag to hunt elk in Wyoming can run more than \$700, and some hunters might see the Harris case as a bargain.

**"There is no rational reason (for Wyoming) to not follow the rule of law. It is in fact irrational to waste taxpayers' money and develop a reputation as reticent to follow the actual law of the United States."**

"We joke that, well, they could give us \$1,300 and go for two," Friday said.

Recently, the department has cracked down; wardens now camp overnight at hotspots during the hunting season and are catching more trespassers before they poach. Still, the imbalance remains. Only federal authorities with criminal authority in these cases can ensure that poaching on the reservation is just as risky as poaching on public land.

"(*Herrera*) is national news, it's still in court and everything else," Lawson said. "Our case didn't make it anywhere. Nobody's taking us seriously. But if it's on the other side of the fence, they sure do."

Wyoming recently conceded that the Bighorn National Forest is "unoccupied" for the purposes of the Crow Tribe's treaty rights. If the state is dead set on preserving Herrera's convictions, it will have to prove that it had a legitimate "conservation necessity" to restrict treaty elk hunting in the area in 2014. And that's a tall order since, according to the state's own objectives, the North and South Bighorn elk herds have been overpopulated in recent years.

Should Wyoming decide to change course, blueprints are available: Montana, Idaho and Colorado have all challenged tribes' off-reservation hunting rights and, when things didn't go their way, worked with tribes to develop treaty-hunting compacts and regulations. But the damage done to state-tribal relations in this case could be hard to reverse.

As for Harris, he left Wyoming in 2019 and returned to North Carolina. In an email, an ATF spokesperson said she could not comment on "personnel matters or disciplinary actions," but said that the agency takes allegations of employee misconduct seriously. A receptionist at the Wilmington office confirmed that Harris was employed there in March 2022 and agreed to take a message for him. Harris, however, did not respond.

The case still bothers Justin Friday, who doesn't mind working through winter nights or sleeping in his truck to prevent similar incidents.

"In some ways, I want to be out here anyway," Friday said. He's an outdoorsman and spends a lot of his free time in the Wind River's wilderness, too.

Sometimes, Friday said, the biting cold rouses him from sleep and he has to run his truck's heater to get comfortable. This is how he guards the reservation's natural resources, knowing that if he doesn't fend off would-be poachers, they won't be held accountable.

"That's my job, to go out there and catch them," Friday said. "My frustration comes when I catch them and nobody does anything." ❁



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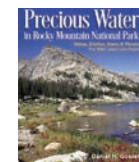
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PERSPECTIVE

## Environmental justice is only the beginning

If the U.S. ever hopes to be in right relationship with the lands and waters it has seized, it must first restore its relationship with Indigenous peoples.

BY DINA GILIO-WHITAKER

**WE ARE NOT IN A HEALTHY** relationship with the natural world. Perhaps that much has finally become clear to the settler cultures in the West. Record-setting wildfires and a drought with little end in sight are physical warning signs of how toxic our relationship with our non-human relatives has become. These symptoms demand immediate evaluation and treatment. But in order to come up with the necessary solutions, the people and elected leaders of the West, and of the United States, and of the world, must accept a simple truth: None of this was inevitable. These conditions are the product of a series of choices rooted in the genocide, displacement and political marginalization of the land's original peoples.

Manifest destiny and technology-intensive modernity, amplified by the incentive of capital, have resulted in gross mismanagement and, in many cases, total destruction



A billboard designed by artist Votan Henriquez was installed in Edgewood, New Mexico, as part of @landback.art. **Roberto E. Rosales** / @landback.art

must apply not only to those who remain dead set on squeezing every penny out of these critical years, during which a different future might still be possible, but also to those who ostensibly stand with us. Until then, we will all have to watch the consequences play out in real time.

**BECAUSE INDIGENOUS** communities have been marginalized and outnumbered by the settler culture that displaced us, killed us and degraded our homelands, some might think that the righting of these wrongs is a matter of environmental justice: a concept that teaches us that environmental degradation and toxic development disproportionately impacts marginalized populations, and that environmental racism explains these disparities.

This kind of race-based analysis, while useful when applied correctly, compels us to think in terms of racial justice among human populations relative to environmental issues. For American Indians, however, the legal concept of environmental racism is not broad enough. To understand the ways that Indigenous communities historically have been and continue to be exposed to the environmental harms that come with centuries of colonial violence, one must first acknowledge the fact that Native nations maintain political relationships to the state. That is, they are not solely ethnic or racial minority groups; they are also sovereign nations. The relationship between the United States and Indigenous communities is defined by treaty rights and trust responsibilities, not race.

Despite the legal principle of tribal sovereignty, which, in theory, is supposed to protect tribal lands, the U.S. continually violates the environmental integrity of those treaty territories by actively encouraging toxic developments like oil pipelines and mining operations. The nation's legal and political systems routinely fail to protect sacred places and other cultural sites because American law refuses to recognize and cede power to the different worldviews of Indigenous spiritual traditions, which are based on entirely different sets of philosophical and value systems.

It is these different value systems and worldviews, ultimately, that set Indigenous people apart from Eurocentric mainstream society — not race. These differences are rooted in religion. Europeans imagined and declared themselves superior to Indigenous peoples based on the fact that they were Christians and Native people were not. This religious and cultural superiority became cemented as the foundation of a legal

structure that maintains a U.S. relationship of domination over Indigenous people today.

This worldview was used to create a society that saw nature as a force to be dominated, conquered, or overcome. European and then American politicians, industrialists and farmers did not develop food systems constructed around the existing flow of nature, like the ones that Indigenous people had honed over millennia. Instead, they sought to graft Eurocentric agricultural and energy practices onto lands, waters and natural relatives drastically different from the ones they knew.

The colonial impulse to “civilize” Indians was an extension of the impulse to “tame” the land. It was reflected in every structure and policy erected to expand the country's control over both, from damming rivers and eradicating the buffalo, to the continued subsidization of today's factory farm and fossil fuel industries. It only took a few hundred years of these ill-fitting Eurocentric approaches to bring us to where we find ourselves today: standing on the brink of human extinction, yet refusing to accept certain basic scientific truths of survival. The core truth is that we must learn to live within the constraints of the ecosystems we find ourselves in.

**THERE IS STILL TIME**, and more importantly, a way, for us to back away from the brink. But it will require the U.S. and its partner states to loosen their collective grip over the earth.

Within the academic and scientific realms, there is a growing recognition that Indigenous people all over the world hold important keys to healthy environments. Studies increasingly show that cultural diversity is intimately linked to biological diversity when traditional ecological knowledge guides land use. Protecting Indigenous peoples and their territories is necessary for shielding vulnerable ecosystems from ongoing degradation through industrial development, and it is Indigenous knowledge systems that provide protective mechanisms. The data is clear. What is cloudy is the political will of the nations that steered us onto this destructive path, and even the will of those who ostensibly share the goal of seeing a thriving planet.

Conservation has long been the language we use to describe the need to protect the natural world, and this is generally the way that governments frame their approaches to protecting 30% of the nation's lands and oceans by 2030, aka the 30x30 plan. There are good reasons, however, to question conventional conservation, given the ways it is often practiced. And the best way to understand these shortcomings is to trace them back to their roots.

“It is, of course, absurd to assume that the

of forests, grasslands, rivers, lakes, wetlands, watersheds, ocean and desert biomes and countless other ecosystems — all within a few short centuries of European arrival. It is the direct result of the wars that settlers have waged against not only Indigenous people but the lands those people long inhabited. Countries like the U.S., founded on a value system that historically saw (some) humans as separate from and superior to other humans and to nature itself, now find themselves in an existential crisis. Under present conditions, it is difficult to envision a future beyond catastrophic change. The only steady truth is that our relationship with the land and the waters, like our relationships with each other, will remain completely out of balance until we move beyond platitudes and half-measures and meaningfully center the political, human and spiritual rights of Indigenous people. And this

Indians fired the forests with any idea of forest conservation in mind. ... It is probably a safe prediction to state that should light-burning continue for another 50 years our existing forest areas would be further curtailed to a very considerable extent.”

So wrote Aldo Leopold in 1920, when he was an early-career forester employed by the U.S. Forest Service. Leopold’s views — then considered cutting-edge silviculture — reflected an approach to forest management that viewed trees solely as a commodity in service to the capitalist state. Called “wise use” at the time, this policy also reflected the United States’ approach to American Indians: that Indians were ignorant savages who couldn’t possibly know anything important about managing landscapes they had been living on for thousands of years.

A century later, the folly of Leopold’s views and the Forest Service policies they inspired have come back to haunt all of us. We know now, as Native people knew then, that the government’s decision to end Indigenous burning practices would lead to the kinds of problems we now face in the West with extreme wildfires. Water diversion, the over-drafting of aquifers and persistent drought from climate change exacerbate the danger. In a way, Leopold was right: Indian people did not manage their landscapes for the purpose of maximizing profits under the guise of “conservation.” Their traditional knowledge was the foundation that ensured healthy, sustainable ecosystems for both human and nonhuman life in relationships defined by reciprocity and responsibility.

Institutional land conservation began in the U.S. in the 19th century at a time when the nation was engaged in brutal ethnic cleansing campaigns against Indians to make way for settlers. The creation of the national park system, often referred to as “America’s best idea,” came at the expense of Native people and became the model for conservation globally. Under what is now called “fortress conservation,” as Indigenous peoples, human rights groups and scholars have pointed out, Indigenous peoples face land dispossession and other rights violations in the name of environmental protection, perpetrated by state governments and often supported by Big Green organizations.

Late in his life, when he wrote his famous treatise on land ethics, Leopold realized that a view of land that did not recognize the interconnection of humans with what he called biotic communities was foolish. As a white settler, however, his biggest blind spot was the country’s relationship to Native people and their relationships with the natural world. He couldn’t see that at the root of Native cultures were intelligent

land-management practices that guaranteed long-term survival in healthy ecosystems.

In the U.S., we are only just beginning to have honest conversations about the country’s true “original sin,” colonialism, with its twin pillars of slavery and Indigenous genocide and land theft. The Standing Rock Sioux Tribe’s struggle against the Dakota Access Pipeline in 2016 became a lightning rod for environmental activists all over the country, many of whom learned for the first time about their country’s carefully sanitized history. Then, the appointment of Laguna Pueblo citizen Deb Haaland as President Joe Biden’s secretary of the Interior provided an entirely new kind of platform for un-erasing Native issues, especially given her demonstrated commitment not to perpetuate the whitewashing of U.S. history. And now, the #landback movement is organized, funded and speaking truth to power in unprecedented ways.

Land return does not mean that everyone who is not Indigenous to what is today called the United States is expected to pack up and go back to their ancestral places on other continents. It does mean that American Indian people regain control and jurisdiction over lands they have successfully stewarded for millennia. This includes the return of public lands; 48% of all the land in the Western states is public land, taken from Native people in ways that profoundly betray the United States’ image of itself as a democratic and just nation. It also includes the numerous ways Native people can be included in governance and decision-making in land trusts,

conservancies, co-management and other kinds of collective land-stewardship arrangements.

Restoring lands to Indigenous control is not reparations or racial justice; rather, it is environmental justice in the most expansive sense of the term. It is a major step in redressing relationships that have not been right since first contact. And history shows that no one knows how to manage their ecosystems better than the Original People who have tended these landscapes intelligently since time immemorial, from the Wabanaki in Maine to the Gwich’in people of Alaska, and from the Karuk and Yurok in Northern California and the Kānaka Maoli in Hawai’i. If ensuring the sustainability of healthy ecosystems for future generations of all Americans is the goal, then Indigenous land back is a win-win for everyone. And the guarding of tribal sovereignty is central to all of it. ✨

*Dina Gilio-Whitaker is a lecturer of American Indian Studies at California State University San Marcos and an independent educator and consultant in American Indian environmental policy issues. She is the author of As Long As Grass Grows: The Indigenous Fight for Environmental Justice from Colonization to Standing Rock. Gilio-Whitaker currently serves on High Country News’ Board of Directors.*

A billboard by River Whittle was installed in Alamogordo, New Mexico, as part of @landback.art. **Roberto E. Rosales / @landback.art**



# Plant becomes her

Elvia Wilk dives deep into plant intelligence, speculative fiction, toxic waste, black holes and the future of humankind.

BY SEAN J. PATRICK CARNEY

**IN AUGUST 2020** I took a solo road trip from California — which was burning — to Michigan. Stopping for a hike outside Denver, I summited a rocky crest only to behold a foreboding ashen horizon. Colorado had also caught fire. The next day, driving through Iowa, I gawked at the imploded silos, uprooted trees and collapsed barns left in the wake of a derecho storm. At the same time, we were five months into a pandemic. Things felt apocalyptic.

This was one of many experiences I've found myself re-evaluating after reading *Death by Landscape*, writer Elvia Wilk's insightful (and accessible) deep dive into climate anxieties and ecological weirdness. The book is a collection of Wilk's "fan nonfiction" bibliographical essays, which pore over scores of novels, short stories and theories by writers wrestling with the Anthropocene. Titled after Margaret Atwood's 1990 fable about a girl who transforms into a tree, *Death by Landscape* features highly readable, annotated essays that move at an exciting clip and dig into plant intelligence, virtual reality, science and climate fiction, trauma, toxic waste and queerness, black holes and much more. I'd previously assumed that the landscape was exacting revenge upon humankind, but Wilk challenged my compulsion to simultaneously anthropomorphize and "other" mountains, forests and wind. Why had I so automatically reduced their complex, rhizomatic behaviors to mere vindictiveness?

Across three themed sections — Plants, Planets and Bleed — Wilk grafts expressive, winding vines between luminaries of speculative fiction like Octavia E. Butler, Jeff VanderMeer, Han Kang and Ursula K. Le Guin; cultural critics and philosophers, including Michelle Wallace, Emanuele Coccia, Lauren Berlant and Mark Fisher; poets Walt Whitman and Anne Carson; and medieval mystics Marguerite Porete, Hildegard von Bingen and Julian of Norwich. What sets *Death by Landscape* apart from many essay collections is that readers needn't be familiar with the writers or topics in question to

imbibe the work's spirit. The book is a bewitching object, inviting anyone eco-curious into an intimate, verdant discourse by simple virtue of Wilk's enthusiastic fandom. Suddenly, gardening, favorite hiking trails — even entertainment — feel uncanny in the best ways.

When I first saw Andrei Tarkovsky's post-cataclysmic classic *Stalker* (1979), I regarded its primary setting — the "Zone," an exclusion area of abandoned industrial architecture reclaimed by flora — as a wasteland. Similarly overgrown, long-vacant edifices define *Station Eleven* (2021), the HBO Max mini-series adapted from Emily St. John Mandel's

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*Writing is not productive, in the capitalist sense, but regenerative, like giving a gift.*

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genre-subverting 2014 post-plague novel. But because I watched *Station Eleven* while reading *Death by Landscape*, instead of bleakness, I saw potential: art-appreciating, post-capitalist communities, entwined ecstatically with the terrain. Throughout Wilk's ruminations, "plant-becoming" in fiction — see VanderMeer's celebrated Southern Reach Trilogy — is a seductive theme.

Metaphysically speaking, we're already there. Referencing novelist and science writer Daisy Hildyard's book-length essay *The Second Body* (2017), Wilk proposes that in addition to your public meat body — the body that goes to work, has sex or gets headaches — you have

a second body, an "ecosystems body," that is "tethered — in ways both identifiable and mysterious — to microbes, mosquitoes, whales, ice shelves, landfills, and annual average rainfall, as well as, of course, human political and social formations."

Good writing, especially fiction, Wilk argues, illuminates such mind-bending convergences. And writing is not productive, in the capitalist sense, but *regenerative*, like giving a gift. *Death by Landscape's* gift is Wilk's bold refusal of reactionary fatalism in favor of championing our species' most transcendent quality: imagination. Because if individual writers can germinate crushing dystopias or beguiling utopias with equal, convincing fidelity, then the "few rich people and corporations largely culpable for (this) ongoing disaster" — which is already dystopic for many — can certainly choose which futures to engineer and manifest.

In May, I road-tripped across the U.S. again, westward this time, reading *Death by Landscape* for the second time. The complex problems impacting the environment hadn't changed, but my perspective had. Trekking the Ozarks, I considered my own ecosystems body. Instead of bemoaning the enveloping humidity, I visualized being subsumed into fractals of lush vegetation. Throughout New Mexico, the sky was choked by wildfire smoke. But at the Very Large Array — 27 jaw-dropping radio telescopes built in the 1970s to observe black holes, gamma-ray bursts, quasars and pulsars — and *The Lightning Field*, artist Walter De Maria's delicate but expansive 1977 land artwork, I sidestepped cynicism, momentarily, to admire these fantastic, imaginative interactions with the landscape. Both warrant critique, of course, but they remain poetic, risky, strange.

Days later, atop enormous boulders in the scorching Mojave, I inventoried my summer reading list, culled from *Death by Landscape*: Omar El Akkad's *American War* (2017), Coccia's *The Life of Plants* (2018), Han's *The Vegetarian* (2007). While the endless, free sunlight sizzled my first body's skin, I remembered Wilk's evaluation of the DIY green-tech subculture solarpunk as "a curiously utopian impulse ... built on a clear-eyed understanding of a dystopian present." I thought about drought, fire and the ongoing pandemic, but also storytelling and creativity. Weirdly, regenerative futures felt possible. ✨

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## Death by Landscape

Elvia Wilk

320 pages, softcover: \$16.95

Soft Skull Press, 2022.



## REVIEW

# Recording the West

Four new podcasts envision change in juvenile justice, energy and ranching.

BY KYLIE MOHR

ILLUSTRATIONS BY SIMONE MARTIN-NEWBERRY

**IT'S BEEN A RED-HOT YEAR** for Western audio journalism as new podcasts reflect on the West's changing communities and try to imagine a better future. Recent miniseries ask: Why are we doing things this way, and how can we improve?

*Cowboy Up*, *Coal at Sunset: A Colorado Town in Transition*, *Women's Work* and *Wild Thing: Going Nuclear* are a quartet of high-quality podcasts created by NPR member stations, an independent journalist and even a local museum. Each explains the issues behind an entrenched system and features the people working to change it. In every podcast, change is happening at a different rate. *Cowboy Up* makes a convincing case that Wyoming's juvenile justice system is in need of reform, but change feels remote, while in Craig, Colorado, as *Coal at Sunset* shows, change is imminent, with the town's coal-fired plants and mines closing by the end of the decade. *Women's Work* highlights innovative women ranchers from Washington to Montana, and *Wild Thing: Going Nuclear* traces the history, science and culture of nuclear energy and asks questions about a future already in progress.

All four series immerse the audience in sound — whistling wind from long pickup drives, vocal cows, a beeping radioactivity monitor. Listeners visit pastures full of grazing cattle and sit inside bedrooms with struggling teens. These podcasts prompt us to imagine new worlds, where coal towns seek new identities and economies separate from fossil fuels, and the nuclear energy industry learns from its past. By the end of each series, listeners will share a deeper understanding of communities across the region and the issues they face.

## COWBOY UP PODCAST

from The Modern West, Wyoming Public Radio

Three episodes, just under an hour each

In Wyoming, more kids are locked up for probation violations than the national average. How can a landscape that seems so idyllic — with its wide-open spaces, relaxed pace of life and opportunities for outdoor adventure — also be such a harsh and unforgiving place to grow up? That's what reporter Tennessee Watson asks in *Cowboy Up*, a podcast about the juvenile justice system in Wyoming.

Several families open up and share their reflections during times of pain, loss and adolescent turmoil. Listeners feel welcomed by teens and their caregivers into cozy living rooms and bedrooms adorned with punk rock posters. Other states have passed reforms to help youth avoid jail, but Wyoming still focuses on incarceration. Watson tries to understand why the state has failed to shift to a more holistic, less punitive approach: a combination of budget cuts, rugged individualism, a political culture that prioritizes local control over sweeping state-level reforms. Wyomingites, she concludes, take pride in their ability to tackle challenges on their own.

Although the show's personal anecdotes and quavering young voices often made me want to cry, it's not all dark. The series concludes at a new school for kids who don't thrive in traditional settings. "I say, if we're true to the story we tell ourselves about being rugged, resilient problem-solvers, it's high time we roll up our sleeves and get to work making sure kids in every community have the resources they need to thrive," Watson says. But state lawmakers are nowhere near sweeping reforms, currently still just debating gathering data. Still, while a single school can't solve the problems *Cowboy Up* outlines, it's a glimmer of hope for teens who might otherwise face incarceration, and listeners who want to help improve the system.

## COAL AT SUNSET: A COLORADO TOWN IN TRANSITION PODCAST

Institute for Science and Policy at the Denver Museum of Nature and Science, in partnership with House of Pod  
Eight episodes, about 30 minutes each

"Coal keeps the lights on" is a popular saying in Craig, Colorado. But as in other coal towns across the West, change is in the air. The town's plant and mines will close for good by 2030, and *Coal at Sunset* explores what that next decade and beyond might look like.

The series' hyper-local approach might make it especially popular with Coloradans, but it's also relevant to a much larger audience. *Coal*



*at Sunset* lays out a playbook for Western towns where coal has been the economic and cultural lifeblood for decades. Host Kristan Uhlenbrock asks tough questions with care and compassion to humanize the situation, deepening listeners’ understanding of what the transition away from coal really entails.

As one local says, it’s painful, but they’ve got the rest of the decade to evolve into a new, thriving reality. *Coal at Sunset* presents options already underway, including a community college that offers programs in cybersecurity and aviation, Craig’s burgeoning art scene, and increasing outdoor recreation and tourism opportunities surrounding the Yampa River. A range of voices, from utility executives to the owner of a local wine bar, gives depth and context to the show. The podcast ultimately can’t answer the question of how to balance the obligation to protect the planet with the need to preserve livelihoods and cultural identity, but listeners are treated to a variety of perspectives along the way.

#### **WOMEN’S WORK PODCAST**

Boise State Public Radio

Seven episodes, each 20 to 30 minutes

Starting in Montana with a disgruntled pregnant sheep named Babette, *Women’s Work* episodes transport listeners to fields and mountain ranges across the West. Instead of dwelling on the flaws of the industrial meat system, journalist Ashley Ahearn looks at the women charting new courses in a male-dominated profession that’s often hard on the land. Each episode shows how women are finding new solutions to ranching’s problems.

*Women’s Work* touches on some of the regenerative ranching movement’s favorite techniques, including rotational grazing, where livestock are moved between smaller pastures to prevent overgrazing and improve soil health. But the series goes beyond that to explore other issues at the intersection of ranching, culture and sustainability. In Burns, Oregon, for example, flood irrigation, although considered an inefficient use of water, provides habitat for birds and other wetland creatures. Another episode takes listeners to the Cheyenne River Reservation in South Dakota, where Lakota rancher Kelsey Scott is tackling Indigenous food sovereignty by raising beef on the reservation and selling it to residents. Others take listeners to Colorado’s rapidly developing Front Range and to the mountains of Idaho with the Elzinga family and their seven daughters.

Ahearn excels at capturing natural sounds to create an immersive experience. Listeners feel as though they are right alongside her, listening

to wolves howl, poking around cow dung looking for beetles and sitting in the saddle on cattle drives. Short episodes sometimes left me wanting more detail on some issues, such as the role ranchers could play in the land-back movement (a push to return Indigenous land to Indigenous control) and the lack of diversity in ranch ownership. But collectively, the episodes offer numerous ways to rethink how meat is raised, and in the process, how ranchers interact with the land around them.

#### **GOING NUCLEAR PODCAST**

*Wild Thing* show

Nine episodes, each approximately 25-30 minutes

Nuclear energy in Western states, including Washington and Wyoming, is getting a face-lift with “new nuclear” — a generation of much smaller reactors that some companies claim are safer and more efficient than previous models, although new research casts doubt on these assertions. *Wild Thing: Going Nuclear* enters the conversation at the perfect time, asking serious questions: Are the risks worth the rewards? Have the industry’s scientists, officials and business execs learned from past mistakes? Are humans ever responsible enough to harness the power of the universe, and should we even try?

Host Laura Krantz grounds the debate in southern Idaho, where a nuclear reactor at a federal research facility melted down over 60 years ago. Today, the area is home to the Idaho National Laboratory, where researchers are working with private companies to build, test and commercialize small modular reactors. (It’s also where Krantz grew up, giving her an insider’s perspective.)

Centering the podcast’s core narrative in a location where things went wrong does cast an inherent pall over nuclear power’s viability as an energy option. Kicking off the first episode with a scene in which two workers are dead, one is missing, and radioactivity is off the charts sets a wary tone that nuclear proponents might not appreciate. But listeners who have heard Krantz’s past seasons of *Wild Thing* will recognize her jokes and an earnest, curious approach. Krantz is a master at demystifying scary things, either actual events or the somewhat more dubious kind; previous seasons focused on Bigfoot and aliens. Disasters are an inescapable part of the nuclear industry’s past, and this podcast will help thoughtful listeners decide for themselves whether the costs are worth it in the long run. ☼



## Jinx bird

In praise of the elusive, the mysterious and that which defies categorization.

BY NINA McCONIGLEY  
ILLUSTRATION BY TARA ANAND



**I BEGIN BIRDING** by accident. I am 16 and at a Waldenbooks at the Eastridge Mall. I have gone there to read magazines — to flip through *Seventeen* and maybe buy a Harlequin romance, if I can get past the embarrassment of buying one. Propped up near the cash register, under a banner marked “LOCAL INTEREST,” is *A Field Guide to Western Birds* by Roger Tory Peterson. I skim through it, admiring the pictures. In the index, I look up the American robin, one of the only birds I know. There, in simple prose, is a description of a bird I see daily in Casper, Wyoming. I read about its habitat, its song, its plumage, its range.

I have always loved a taxonomy, any kind of categorization. When I was 13 and in 4-H, I studied botany and entered the county fair with a handmade flower press. I bought a photo album at the mall and lovingly arranged the flowers I had pressed beneath flimsy plastic. *Sego lily*. *Indian paintbrush*. *Cow parsnip*. *Arrowleaf balsamroot*. I wrote their common names and Latin names on scraps of paper, identifying every flower. I won a blue ribbon at the fair.

So, naturally, I buy the bird book. At night, after homework, I study each plate carefully. The book gives me comfort. I start with songbirds and see that in our backyard are mountain chickadees, sparrows, flickers and blue jays. There are a lot of small grayish birds I am no good at identifying. *What are you?* I look out into the yard, flipping pages quickly, trying to ID them before they fly away.

*What are you?*

When I am 16, my answer for this question is cocky. *A human*, I’ll say.

*No, but what are you?* And I know the answer they want. They want to know why my skin is brown, and so they’ll try a different approach. *Where are you from?*

*Wyoming. I’m from here.* Being biracial, I don’t have a better answer. I have never been to India, where my mom is from. I have only been to Ireland, where my dad is from, once.

That winter, I sign up for a field ornithology class at the community college. It is a continuing education class that meets once a week, with field trips on the weekends. When I go to the first class, notebook and field guide in hand, I am the only person under 50. My classmates all have binoculars and scopes. They tell me where to see owls. And when I tell them I’ve seen almost no waterbirds, they direct me to Soda Lake, north of Casper. Originally a repository built by Amoco for refinery waste, it’s become a haven for waterfowl and shorebirds.

The instructor hands us a copy of the

Wyoming Bird Checklist. When I scan the list, I think it’s a joke. There can’t possibly be that many birds around here. I have always thought of Wyoming as lacking — people, restaurants, rock concerts, cool clothes. Yellowstone and the Tetons have lots of animals and birds, but not here. Casper is firmly an oil and gas town.

My classmates, all seasoned birders, assure me that most of the birds on the list can be seen around here. I just need to look hard — to learn how to recognize a silhouette in the sky, to hear birdsong, to stay still and sit with binoculars in hand.

I look for the hardest ones first. Greater sage grouse. Ross’ goose. Philadelphia vireo. I spend weeks checking birds off. Mountain bluebird. Cedar waxwing. Red-naped sapsucker. I look upward and mark red-tailed hawk, American kestrel, ferruginous hawk. I see a peregrine falcon on a fence while walking. I seek the uncommon. Big birds are easy; I can tell what they are from afar. I work my way through the *Corvidae*: ravens, magpies and blue jays. With every tick of my list, I feel a kind of lightness. I can identify them. I know *what they are*. I even begin to see that the little gray birds have names: house sparrows, catbirds, finches, juncos and towhees.

It is the easy birds that I have trouble with. The first few come quickly. American robin, check. Band-tailed pigeon, check. California gull, check. But there are so many common birds I seem to miss. And then there is my jinx bird. A jinx bird is a relatively common bird that manages to elude you despite your best efforts. A common thing that isn’t seen. Mine is the western meadowlark, the state bird of Wyoming. I see it everywhere but in the wild — in my Wyoming history book, in paintings and on murals. On T-shirts. I know its song. I scan fences for a flash of yellow, for the black V on their chest.

**GROWING UP**, I liked to examine the maps hanging in my dad’s office. He is a petroleum geologist, and I wanted to see where he was when he would head out to a rig for long stretches at a time. Most of the maps used “township and range,” a mapping system created from a land survey. It’s sometimes referred to as the Public Land Survey System, but it includes all land, both public and private. It’s an incredibly specific grid system, developed after the Revolutionary War as a way of legally recording land. Recording *appropriated* land, that is. Following that violent and illegitimate appropriation, the whole of Wyoming, and the West, was broken up into squares. Each square has more

little squares in them. They’re called sections, and there are even littler squares within each section. Each section is one square mile and contains 640 acres. A number for the township marks the location of the section north to south, while a number for the range marks the location east to west.

I was drawn to this system as a way of framing order on something as wild as land. I used to play a game where I would figure out the township and range of places I loved. Casper was T33N R79W. Later, I would get those numbers on my first tattoo across my back, under a covered wagon to mark that we were immigrants — that we had migrated here to the West.

This may be why I identified with birds. They are migrants. They leave their homes. They have a strong sense of direction; they have unmatched fortitude when it comes to making a journey.

Years after I have given up on bird checklists, I am at a rest stop in the Shirley Basin, trying to avoid an early storm. It has begun to snow, and visibility is already blurry, and I hear a meadowlark: the clear whistles, then warble, of its song. I hear the song again. I have stopped to use the pay phone as there is no cell service. The flute-like song is clear. I cannot see it. But I can hear it. I did not have to see it to believe it there.

The next tattoo I get is of a jackalope: the most fantastical of creatures, and as I joke to people, an emblem of all things mixed race.

*What are you?* There are so many ways to identify something. A field guide. A map. My old birding checklists. As I have gotten older, I am all about *not* categorizing. Much of the world is not an either/or. The maps I pored over only tell one side of a story — usually a story of colonization and naming that doesn’t take those who look like me into account. I am Indian in the American West. I am like a non-Native species that in migrating through, found a home. People say a jinx brings bad luck to something, like not being able to check off a bird on a list. But I can identify with not being easy to pin down. I am now drawn to the unseen, to things that don’t measure in straight lines or are easily classified, to what cannot always be explained. I’m drawn to the jackalope and the meadowlark. I still haven’t witnessed either. ✨

*Nina McConigley is a professor and writer living in Laramie, Wyoming. She is the author of Cowboys and East Indians. This is the first column in her new “Township and Range” series, in which she writes about the intersection of race and family in the interior rural West.*

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# Heard Around the West

Tips about Western oddities are appreciated and often shared in this column. Write [heard@hcn.org](mailto:heard@hcn.org).

BY TIFFANY MIDGE | ILLUSTRATION BY ARMANDO VEVE

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## OREGON

Aliens and starships and lasers (oh my!) from a galaxy far, far away dropped in on downtown McMinnville for the 22nd annual McMenamins UFO Festival, May 13-14. The two-day festival—“for believers and skeptics alike”—featured speakers like Whitley Strieber, author of the bestselling book *Communion*; *Politico* correspondent Bryan Bender; journalist Alejandro Rojas; and ufologists Irena Scott and Kathleen Marden. While there was no shortage of little green men, other out-of-this-world activities included live music, dancing, street vendors, and the cherry on top of the proverbial flying saucer (or is it a giant floating eyeball? See [ufofest.com](http://ufofest.com)), the alien costume parade — always a crowd favorite — and a costume contest for pets. Because there’s no denying that cats, particularly long-haired ones, make terrific tribbles for a Close Encounter of the Purred Kind.

*The Oregonian* reported that the festival originated 22 years ago, when historian Tim Hill was researching the history of McMinnville’s McMenamins Hotel. He found an article and photographs dated 1950, on the front page of the *McMinnville Telephone Register*, which recounted how Evelyn Trent and her husband, Paul, saw a flying saucer hovering in the sky near their farm. Paul Trent snapped some photos that captured the attention of the Associated Press, and a media frenzy ensued. Realizing that 2000 marked the 50th anniversary of the sighting, Hills decided to launch a festival in honor of it. And the festival has been in orbit ever since,



save for a brief hiatus, when, like so many other things, it vanished into the black hole of the pandemic.

## WASHINGTON

It’s not every day that you come home to find a pair of bald eagles in your neighbor’s backyard, locked in a rumble like the Jets against the Sharks. Gee, where’s Officer Krupke when you need him? But that’s exactly — or almost exactly — what Seattle resident Kim McCormick witnessed and filmed. This was no quick schoolyard scuffle; McCormick told *King 5* reporters that “the birds were clashing outside her neighbor’s home from 6 p.m. to 11 p.m.” Emily Meredith, rehabilitation manager at PAWS Wildlife Center, said, “The fight was likely a territorial dispute between two male or two female bald eagles.” The birds rarely get

that physical, although lengthy arguments do occur. “Usually, the eagles do a lot of posturing and communicating without engaging with each other to try to say, ‘This is my territory, go away,’” Meredith said. But once they get into it, the feathers start flying; the determined birds will stick it out until the very end, since giving in or letting go is seen as a sign of weakness. As bald eagles recover from their once-endangered status, fight reports have increased. “I think people are seeing it more and more as they fight for the prime territory to nest and forage,” Meredith said. Apparently, they call eagles “fierce” for a reason.

## WYOMING

They grow up so fast: *Jackson Hole News&Guide* reported that Grizzly 399 and her four cubs have parted

ways, with each youngster setting off into different areas of Grand Teton National Park. The famous fivesome emerged from their den over Easter weekend. Normally, grizzly cubs leave home after two years, and Grizzly 399’s cubs have been together since their birth in 2020. “This is fully what we were anticipating,” said Justin Schwabedissen, the park’s bear management specialist. “As the family group separates and these cubs go off on their own, we’re certainly concerned that some of these cubs may move south outside of the park and head onto private lands.” Two of Grizzly 399’s cubs — subadults now, actually — were spotted in the Solitude subdivision about 2.5 miles south of park headquarters in Moose. The Wyoming Game and Fish Department is watching out for the bears, along with a legion of fans, photographers and wildlife advocates.

Meanwhile, Grizzly 399 appears to have re-entered the dating-and-mating game; no mooning over an empty nest for this lady. Wildlife photographers and bear watchers think that her suitor might be Grizzly 679, otherwise known as “Bruno,” but park officials have yet to confirm his identity. Three of the cubs attempted to “visit” with Grizzly 399 — do mama bears also get stuck with their kids’ dirty laundry? — only to be run off by the new suitor. Schwabedissen said, “We watched repeatedly as (the) male grizzly was chasing the cubs off.” Procreation is a complicated affair for most of us, and grizzlies are no exception; “courtship” in the wild isn’t all Valentine hearts and red roses. ❁



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# #IAM THE WEST

**Georgiana Kennedy Simpson**  
High school art teacher  
Montezuma Creek, Utah

The last couple of years have been so incredibly difficult for our scholars. The vast majority of our students have trauma-impacted brains because of circumstances arising from poverty and oppression, so it was very difficult even before the pandemic. We've focused on teaching them mindful ways to take breaks, to breathe, to just step back from a situation when they're feeling angry or sad or depressed. This year was an exploration of themselves; they just needed an opportunity to process what they've been thinking and feeling. So, naturally, there was a lot of artwork, there was a lot of self-portraiture. What was really clear to me at the beginning of this school year was just how happy they were to be back. It translated into more and better art than I have ever seen coming out of our studio.

Do you know a Westerner with a great story?  
Let us know on social.

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