

High Country News

For people who care about the West

Reclaiming the Klamath

For the first time, the Yurok Tribe has one of its own to lead its legal battles

By Anna V. Smith





At the 55th annual Klamath Salmon Festival last August, Yurok tribal member Oscar Gensaw tends the fire, while his brother, James, readies more yew wood to cook salmon in the traditional way. The fish came from Alaska, due to a shortage of salmon from the Klamath River.

JOLENE NENIBAH YAZZIE

Editor's note

Indian law and injustice

Of the many cruelties that underpin the establishment of the American West, none is so pernicious as the denial of legal rights to American Indians. The rights of Indigenous peoples — to land, water and wildlife — are sometimes recognized by the courts, yet thoroughly undermined by a dominant American culture rife with ignorance and racism. Nevertheless, tribes have continued to assert their rights, and now hundreds of Indigenous lawyers are fighting legal battles for their nations.



What is commonly called "Indian law" developed among peoples at the mercy of a merciless system — beginning in 1831, when the Cherokee Nation went to court against the state of Georgia for the right to determine its own affairs. The struggle carried on through the 19th and 20th centuries, as the U.S. government executed a policy of extermination, isolation and brutal warfare against tribes from coast to coast. These tribal nations persisted, however, and Indian law developed, case by case.

What emerged when tribes had a fair shake was the legal doctrine that they are, in essence, sovereign nations with the right to self-determination. Although America is well into the 21st century, its legal and political systems consistently prove themselves inadequate for basic justice, even under this simple tenet. Legal scholar Matthew Fletcher, a member of the Grand Traverse Band of Ottawa and Chippewa Indians, has noted "an institutional bias against tribal interests" in the Supreme Court, despite 187 years of precedent. "Even when the federal government sides with tribal interests, the Court is unimpressed," Fletcher wrote for the American Bar Association. "This institutional bias runs against the now-settled national policy favoring tribal self-determination."

Despite such bias, Indigenous lawyers emerged to define Indian law in the 1970s, becoming mentors and educators for the next generation. Today, a growing cadre of young Indigenous lawyers is rising to meet legal challenges, old and new. As Assistant Editor Anna V. Smith reports in this issue's cover story, the Yurok Tribe, in Northern California, now has one of its own citizens leading its most important legal battles — those over the Klamath River and the salmon it carries. As drought intensifies and non-Native farmers become increasingly desperate for irrigation, the stakes on the river are high. We will see in coming months and years whether the courts can deliver fair judgment on these and other tribal issues.

Either way, the Yurok general counsel, Amy Cordalis, continues to find solid legal footing for her tribe, working to change the system from within. Her story is one among many, as young Indigenous professionals contribute great things to their tribes and to the United States. All of them should be recognized as positive role models — not only for their communities, but for everyone.

—Brian Calvert, editor-in-chief

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Amy Cordalis brings in a salmon for processing at the family dock at Requa, California.

DANIEL CORDALIS



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Hay bales on a Montana farm that receives funding from the Conservation Stewardship Program, which was on the chopping block in a draft of the farm bill. USDA NATURAL RESOURCES CONSERVATION SERVICE

Farm bill flounders

Every five years, Congress reauthorizes the farm bill. The legislation, which is projected to cost about \$387 billion, is crucial for food security and agricultural production. It's also the nation's single largest funding package for conservation on private lands. In the first draft of the House version of the farm bill, funding allocations for its main conservation programs looked grim. Overall, the bill cut nearly \$800 million for conservation programs over the next 10 years. The Conservation Stewardship Program, one of the largest conservation allocations, would have been eliminated, and rental payments for farmers participating in the Conservation Reserve Program would have decreased. While this version failed in the House on May 18, portions of it could be revived in future drafts. In the meantime, the Senate is expected to release its version of the bill in June. JESSICA KUTZ

Read more online: hcne.ws/farmbill-flop

Trending

Road rage: Drivers vs. bikers

As more people — drivers and cyclists alike — take to the West's roads and highways this summer, Writers on the Range opinion writer Michael Wolcott sought to answer a question: Why do some drivers get so peeved at bikers? Beneath the road rage, he believes, is a deeper disdain for those who are perceived as different. "To these people," Wolcott wrote, "the other can't be trusted, and the other shouldn't even be here."

MICHAEL WOLCOTT

You say

KEVIN MAZZOCOCO: "I'll run over a painted line in the roadway any day when it comes to allowing my fellow citizen the right to exercise and enjoy the outdoors safely on their bicycle."

CANDACE OATHOUT: "There are paved trail networks in most states that are designed for bicycle traffic and are rapidly becoming interconnected. Why do bicyclists continue to demand that all drivers everywhere must accommodate them on highways?"

MELISSA MCDOWELL: "I understand that some folks ride as a commitment to a personal lifestyle, and there are those for whom bicycles are a transportation necessity. Bicycles are modes of transportation — that's what highways and roads are for."

Read more online: hcne.ws/bike-lanes and [Facebook.com/highcountrynews](https://www.facebook.com/highcountrynews)

What not to do during your summer vacation

According to a 2017 study, 84 percent of the wildfires federal and state agencies were called to fight between 1992 and 2012 were sparked by humans. What's more, human actions have tripled the length of the national wildfire season. Following a particularly dry winter in the West, those visiting the region this summer should understand the threats associated with wildfires, since once again the risk of fires is high in many areas. Here are some basic recommendations for safety on the road and at home:

- Know where you are. GPS systems are convenient, but Siri may not always be available. Carry paper maps that you know how to read.
- Share detailed travel plans with friends or family, and inform them when you change course. Someone else should know where you think you are.
- Develop situational awareness. Pay attention to your environment. Seeing or smelling smoke is significant. Avoid rising rivers and flooded roads.
- Have a communication backup plan in case cell service is not available. Sign up for reverse 911, subscribe to an emergency communications service such as Everbridge, or listen to AM channels advertised on road signs in rural communities.
- Check weather reports and respect red flag advisories.
- Heed warnings from local emergency managers and cooperate with first responders.

RAGAN ADAMS/THE CONVERSATION
Read more online: hcne.ws/fire-tip

A screenshot from a Colorado State University police officer's bodycam footage showing his interaction with Lloyd Skanahwati Gray and Thomas Kanewakeron Gray, Mohawk teens and prospective CSU students, who had been reported as suspicious. (Their faces have been obscured.)



COLORADO STATE UNIVERSITY/YOUTUBE

When colleges let down Indigenous students

In April, police removed two Mohawk teenagers from a campus tour at Colorado State University after a mother on the tour called the police. The unidentified woman said in the 911 call that the brothers acted "odd," wore strange clothing (they were wearing metal-band T-shirts) and were too quiet when she began asking them why they were on the tour. But the behavior of the two prospective students was anything but abnormal, and racial bias at colleges can be especially

harmful to Indigenous youth. Historically, Native Americans have not had the opportunities members of other races have had to occupy academic spaces. Native Americans represent about 1 percent of college students across the country, and they are the least likely to receive any form of college preparation.

GRAHAM LEE BREWER

Read more online: hcne.ws/collegiate-bias



BOB WICK/BUREAU OF LAND MANAGEMENT

Bears Ears is open for business

Recently, *HuffPost* reporter Chris D'Angelo played the part of a prospector, staking a mining claim inside the former boundaries of Bears Ears National Monument. D'Angelo wrote, "I wanted to see how easy it really was." Few others, however, have been tempted by President Donald Trump's promise of "a bright new future of wonder and wealth," and no mining boom has yet materialized. CHRIS D'ANGELO/HUFFPOST Read more online: hcne.ws/drilling-bears

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CONTRADICTION

I, too, have begun to question the assumed correlation between outdoor recreation and environmental conservation ("Your stoke won't save us," *HCN*, 5/14/18). I used to be a nearly full-time recreationalist masquerading as a "professional outdoor athlete." I continue to half-heartedly follow the culture on social media. Along with the overused Edward Abbey quote, I've come to expect posts of outdoor athletes/recreationalists climbing and running in mountains on the other side of the world, advertising imported petroleum-based clothing/gear while preaching the values of conservation, or athletes who undertake inspirational self-propelled adventures — flying around the country while promoting their eco-conscious endeavors.

The irony of the apparent hypocrisy is underscored by my daily interactions with my neighbors here in rural southwest New Mexico. While many of the locals here are undeniable "climate change deniers," I would almost guarantee that, out of economic necessity, they live a more sustainable and lower carbon footprint lifestyle than my eco-conscious globetrotting recreationalist buddies.

Kyle Skaggs
Silver City, New Mexico

THE PRIVILEGE OF WILDERNESS

I enjoyed Sean Prentiss' review of two books about humans' role in the wilderness and in sharing the experience of living within wilderness with your children ("Wildness for the next generation," *HCN*, 5/14/18). My kids have the unique experience of getting to live on U.S. Forest Service land on the edge of a large wilderness area for a period of their lives, a privilege for which I'm thankful — even if they aren't always thrilled.

But it is just that, a privilege, and unfortunately 99.9 percent of Americans won't have that experience with their families. And if they did, that land would not be wilderness. People are visitors, by definition. But thank you for your trail work.

Scott Crain
Seattle, Washington



SET ASIDE THE STROKE

I presume it was an intentional editorial decision by *HCN*, but the same issue that contains this article ("Your stoke won't save us," *HCN*, 5/14/18) also contains an article on how a group of mountain biking enthusiasts are seeking a legislative change to the Wilderness Act to allow mountain bike riding in designated wilderness areas ("Bikes in wilderness?" *HCN*, 5/14/18). If that is what "stoke" is, then it most certainly will not "save us." The only thing that will save what is left of our rapidly diminishing natural world is the appreciation of its intrinsic values, which are well beyond those superficial ones that feed our stoke. That, and the recognition that sometimes we need to forgo our stoke so that the natural world can survive and be in some sort of shape to allow future generations to know it, too.

Scott Finley
El Dorado Hills, California

WILLFUL IGNORANCE

I still find it somewhat astounding that these "range rights" folks seem to forget, ignore or seem plain outraged over the simple fact that they are accessing resources that belong to everyone in the country and not managing private property ("Rebels vs. Reporters," *HCN*, 5/28/18). What they are complaining about is not a property right, it is an access privilege to public-trust resources

and properties.

The right of the federal government to hold title to and manage land in the public trust is enshrined in the same Constitution that they seem to think grants them title to do whatever they wish with land they don't own and have never owned. The Bundy clan is a prime example of this line of misdirected faith. At least I think it's faith, because it sure isn't rational thought.

Overall, it is an amazing display of willful ignorance by a minority with a vested economic interest in exploiting the commons we all value.

Tim Baker
Eureka, California

REAL FEAR

I disagree with the self-serving, condescending quote from Ted Stroll in the article

on mountain bikes in the wilderness:

"The real fear isn't that mountain biking will cause problems, but that it won't cause problems." ("Bikes in wilderness?" *HCN*, 5/14/18).

To me, the "real fear" is that some people refuse to leave their vehicles, cellphones, techie gizmos, etc., at home even for a few hours. That, and the fear that there is no place on the planet deserving to be as free as possible from the trappings of modern Western civilization. I love my mountain biking; it does not belong everywhere.

Bruce Dissel
Moab, Utah

CONSUMPTIVE FLIGHT

In response to "Jet lag" (*HCN*, 5/14/18), I'm wondering what Jonathan Thompson is so provocatively trying to say, and I'm reminded of Bob Dylan's liner note to his seminal record *Highway 61 Revisited* record: "The subject matter, though meaningful as it is, has something to do with the beautiful strangers."

I'd like to walk through a busy airport listening to "Like a Rolling Stone," or better yet, not go to an airport at all. After all, the root of our problems is profligate consumption.

Thank you for all your effort to produce an excellent newspaper!

Doug Morris
Sonoita, Arizona

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Sage grouse shake-up alienates conservationists

Why trust in the Interior Department is waning

BY CARL SEGERSTROM

For two days in March, panelists at a Denver workshop hosted by the Western Governors' Association repeated the same mantra: When it comes to managing public land, collaboration is key. Many pointed to the Interior Department's greater sage grouse recovery plan as an example of what can be accomplished when people work together to promote landscape conservation planning and thereby avoid the need for endangered species protections. The plan, finalized in 2015, garnered support from agricultural interests, conservationists, some states and even some oil and gas companies.

But under the Trump administration, that same plan is already being reworked. The Bureau of Land Management is currently rewriting the environmental impact statements, and last September, Interior Secretary Ryan Zinke removed some habitat protections. The goodwill that the long negotiations nourished is waning as conservationists try to figure out how to respond. Many in the conservation community now wonder: Can they trust the collaborative process, which they say they support, or should they lean on more heavy-handed tactics, such as Endangered Species Act lawsuits, to try to

attain their conservation goals?

Brian Rutledge has been working on sage grouse plans in Wyoming and across the Interior West since 2006. The early stakeholder meetings were "near fist-fights in many cases," recalls Rutledge, the director of the Sagebrush Ecosystem Initiative for the Audubon Society. Over time, he says, those discussions became more civil and led to relationships that allowed for compromises. The agreements brought certainty to landowners, industry and conservationists over how to manage sagebrush country. But now, he says, the "stress levels are much higher" as the BLM works on new plans. "The current scenario is unnerving and unnecessary."

There's a simple reason why land planners and stakeholders touted the value of the joint effort and sought compromise on sage grouse management: It helped avoid expensive lawsuits and led to more flexible solutions than endangered species protections allow. The 2015 sage grouse plans focused on habitat conservation that limited development in critical habitat areas for sage grouse, but also allowed for oil and gas and mineral development in less important habitat. The collaborative plans also crossed state boundaries, an approach that helps the West's migratory animals, like pronghorn antelope, and one that Zinke has publicly supported.

Conservationists see the reworking of the plans as a setback that creates an ominous precedent for future collaborations with federal agencies. "It's really concerning because it sends a message to the American public that it's not worth coming to the table and doing the really hard work of finding common ground," says Tracy Stone-Manning, the associate vice president for public lands at the National Wildlife Federation. "I mean, why spend years working on a solution to see it dismissed because of one special interest — the oil and gas industry?" John Freemuth, the executive director of the Andrus Center for Public Policy at Boise State University, who has followed the sage grouse saga for decades, says that conservation groups are now "more suspicious of the administration — and why wouldn't they be?"

"Conservation groups are going to be less likely to collaborate unless they see signals from the administration that they will uphold agreements," he says.

Despite this, conservationists still say that the collaborative process is the best way to work on species and landscape conservation, at least at the local level. "We're still very committed to the concept of maximum participation, having more voices and an open public process," says Nada Culver, the senior counsel and director of The Wilderness Society's Bureau of Land Management Action Center. "It's vital to include the public when talking about public land." But she fears that's being lost under the current administration. Although there have been setbacks in federal negotiations, Joy Bannon, the field director for the Wyoming Wildlife Federation, says that participants in Wyoming sage grouse talks are still involved in related projects. For example, the Wyoming Wildlife and Roadways Initiative, a state-level collaborative process, is working to improve wildlife corridors for animals like mule deer.

If the conservation community backs away from collaboration, activists are more likely to turn to the pricier strategy of endangered species lawsuits and listing petitions — the exact situation the 2015 sage grouse plans sought to avoid. Zinke has pledged to make a "grand pivot" to conservation in his second year. But that might be too late; the decisions of his first year may have already set those who are willing to collaborate on conservation against him. In fact, in late April, the Audubon Society, National Wildlife Federation and Wilderness Society filed a lawsuit against the federal government for failing to uphold the 2015 plans they worked on and supported.

"It makes sense, because conservationists feel like they're hitting a cul-de-sac, and they have to use the tools they have," says Freemuth. "If it's not collaboration, then it's the courts." □



COURTESY OF ANNE MINDEN

THE LATEST

Backstory

The Northwest's stands of enormous bigleaf maple and redwood trees draw poachers, who lop off redwood burls for use in furniture and cut chunks of figured maple for guitar-making. National forests and other public lands in Oregon, Washington, California and Montana have all been targets of such theft, costing the Forest Service up to \$100 million each year, according to agency documents ("Busting the tree ring," *HCN*, 3/20/17).

Followup

In Northern California, law enforcement **rangers recently arrested Derek Alwin Hughes of Orick after a search of his home turned up several pieces of old-growth redwood.** The burls matched a tree-poaching site discovered in January in Redwood National and State Parks, a string of protected areas that contains almost 40 percent of the world's remaining old-growth redwood forest. Theft of coast redwood burls has increased there in recent years, and the investigation is ongoing. In a separate case earlier this year, Washington residents Mike Welches and Matthew Hutto were sentenced to prison time and fined for illegally cutting bigleaf maple in Olympic National Park.

JODI PETERSON



Sage grouse in Pinedale, Wyoming, where collaborative efforts led to habitat protections that are being loosened under the Trump administration. MARK GOCKE

Carl Segerstrom is an editorial intern at *High Country News*. [@carlschirps](#)



Climate extremes put species in sync – and in danger

Shifts in coastal weather could make species less resilient

BY MAYA L. KAPOOR

Every few winters, a high-pressure climate system called the North Pacific High flares up on California's coast. For several months, northerly winds blow harder than usual down the continent's West Coast, pushing coastal waters out to sea. The sea level drops, and a soup of nutrient-rich waters rises toward the surface from the depths. Thanks to this coastal upwelling, when the system is strong, everything from phytoplankton to seabirds thrives.

But the same climate feature pushes rain northward, parching the Interior West. In winters when the coast feasts, the Interior West's land- and river-based

systems starve. Alternatively, in winters when the North Pacific High is weak, the coast dries out, while the Interior West flourishes under heavy precipitation. Many Western ecosystems — from coastal ecosystems to landlocked forests and snow-dependent rivers

— are in sync with the oscillating nature of the North Pacific High. That means that even if they are nowhere near each other, scattered populations of

the same species of trees will all seed at the same time, or butterflies of the same species will find food and flourish, using cues from this erratic climate phenomenon.

Now, by studying growth rings in the ear stones of long-lived fish and the trunks of ancient trees, researchers lead-



A blue oak tree, about 250 to 300 years old, above, in Sequoia and Kings Canyon National Park in California. Inset at right, a splitnose rockfish. Both have growth rings that indicate the variability of past environmental conditions.

DANIEL GRIFFIN AND DAVID STAHL, TOP; NOAA, INSET

Maya L. Kapoor is an associate editor with High Country News. [@Kapoor_ML](#)

ing a new study have found that the North Pacific High may be becoming more variable and driving a bigger swath of Western ecosystems to biological synchrony — a deceptively nice-sounding situation wherein disparate populations operate on the same clock despite being separated by distance. Unfortunately, synchrony could harm the West's biodiversity, because it eliminates the natural variation that makes species resilient. And it is only expected to increase with continued human-caused climate change.

The study's lead author, University of Texas marine biologist Bryan A. Black, began his research career as a forest ecologist. As he was finishing his graduate studies in tree-ring research, Black came across an advertisement for a post-doctoral position at the Hatfield Marine Science Center in Oregon, where he could study the growth rings that form in the ear stones, or otoliths, of fish that can live for more than a century. "I thought, well, maybe it's possible that these techniques that had been so well developed by tree-ring scientists could be applied to growth increments of long-lived fish," he said.

Otolith organs, which evolved long ago in vertebrates, aid balance and motion, and, in bony fish, assist hearing. Fish otoliths grow from calcium carbonate, the same material that forms shells, with layers of material accumulating each day. The growth of a fish's otoliths depends on how much food that fish is getting. Otoliths, like trees, develop growth rings over time, so biologists can count them to learn a fish's age as well as to measure its food intake.

Black examined the oval, pea-sized otoliths of splitnose rockfish, a species that can live longer than 80 years. Once full-grown, the spiny, solitary creatures — which have the approximate size and energy level of cinderblocks — dwell on the floor of the continental shelf from the Gulf of Alaska to Baja California, resting either near sheltering rocks or in shallow depressions that they excavate in soft sediments, feeding on shrimp and krill and sporting dour expressions that inspired one aquarium to call them the "grumpy cats of the deep blue sea." All the while, their ear stones grow rings that record years of upwelling and years of hunger.

Black found that rockfish growth rings correlate with the variability in the winter North Pacific High: Rockfish grow more when the pressure system is strong, because it means better food supplies. And this is true of rockfish throughout the region, even if they live in separate populations. Other coastal animals show similar patterns. Seabirds, for example, rear more young successfully in strong North Pacific High winters, and small marine invertebrates called copepods explode in population, providing an important food source for other ocean dwellers.

"The winter can really be boom or bust in the marine system," Black said, so more nutrients brought up by coastal upwelling have a sweeping effect on the ecosystem. The North Pacific High's extremes create similarly intense environmental conditions throughout the California Current System, triggering similar responses from the region's organisms. That pushes species to biological synchrony.

For the West's wild organisms, scientists predict, that's a gamble akin to investing all your money in a single stock.

Ecological stability requires having a "diverse portfolio of responses or behaviors," Black said. The idea is that if one population gets wiped out by a local event — if a wildflower goes locally extinct because of drought, for example — nearby populations might be able to recolonize the community, perhaps by sprouting at a lush time in the future. But with increasing synchrony, "there's less and less of a diverse portfolio that helps spread the risk," Black said. "Everyone is tied to the same fate."

And the synchrony created by the North Pacific High doesn't end at the water's edge. Dan Griffin, a tree-ring researcher at the University of Minnesota, examined growth patterns of old-growth blue oak trees in California and concluded that the West's landlocked life is becoming more synchronized, too. Blue oaks, which Griffin calls "Halloween trees" because of their gnarled, twisted shapes, are long-lived and deciduous, growing in open, parklike savannas between the forest and grasslands. Their growth is closely tied to water availability, so their tree rings are excellent record-keepers of drought. By coring old-growth blue oaks, Griffin could follow drought patterns in California going back hundreds of years. "You can look at a plant and just tell it has weathered centuries," said Griffin, with trees whittled

down to a few heavy craggy limbs, or missing their crowns because of windstorms or lightning. "Sometimes we'll even see the root collar from centuries of erosion." His team sampled living trees as much as three centuries old growing in 16 sites, and found that in years when rockfish feasted and their otoliths grew wide rings, the trees' trunk rings grew only narrowly as the oaks suffered through drought. The tree rings extended the timeline for what Black has found with fish ear stones: Winter rains have become increasingly variable over the past 100 years, with drier dry years and wetter wet years. The result was that blue oaks' growth became increasingly synchronized, with tree-ring patterns across the state more closely resembling each other over time.

The North Pacific High is also influencing the Interior West's aquatic systems. Black looked at river discharge records from the West's least disturbed watersheds from 1920 on. He found that in unusually strong North Pacific High years, rivers ran low across the region, while in unusually weak years, they ran high. "As (the North Pacific High) varies over time, it's imprinting patterns in the marine, terrestrial and freshwater systems," Black said. While the study did not look for a connection between increasing wobbliness in the North Pacific High's extremes and climate change, more climate variability overall is predicted by climate change models.

Connie Woodhouse, a geographer and tree-ring researcher at the University of Arizona who was not part of the study, said a connection between the North Pacific High and increasing synchrony across the Interior West adds up. "The fact that they're finding that (the North Pacific High) is connected to stream flow, tree growth and precipitation in Western

North America makes sense," she said.

It's not yet clear what the researchers' findings mean for biodiversity. But other studies have confirmed that increasing variability and synchrony may be devastating, because species need population diversity to survive a constantly changing landscape. One study from 2002 found a connection between rising variability in winter rains and the extinction of two populations of the bay checkerspot, a protected butterfly. Researchers linked the insects' disappearance to the increasingly variable October-through-April winter rainy season, which affected the growth of the local vegetation that the butterflies needed. Over the seven decades leading to their extinction, extremely wet and extremely dry years became more frequent, and the difference in rainfall from year to year grew. The seasonal appearance of the plants that the butterflies ate as larvae, including purple owl's clover and dwarf plantain, became synchronous, following the rain's fluctuations. Eventually, this meant that very hungry caterpillars showed up when food was not available.

Woodhouse cautioned that more research is needed before scientists know whether the same fate awaits other Western species. Most of the increased variability that Black and Griffin documented in the North Pacific High occurred over the last 50 years, which is not a very long time in the life of an old-growth tree. More information is needed to understand what increasing climate variance means for the West's biodiversity. To that end, Black hopes to head to the Gulf of Alaska next, coring old-growth conifers and measuring growth patterns of centenarian bivalves called geoducks, searching for similar patterns connecting climate variability to synchrony — and possibly, to species survival — in another part of the West. □



Lava flows on Kilauea Volcano in May. USGS

THE LATEST

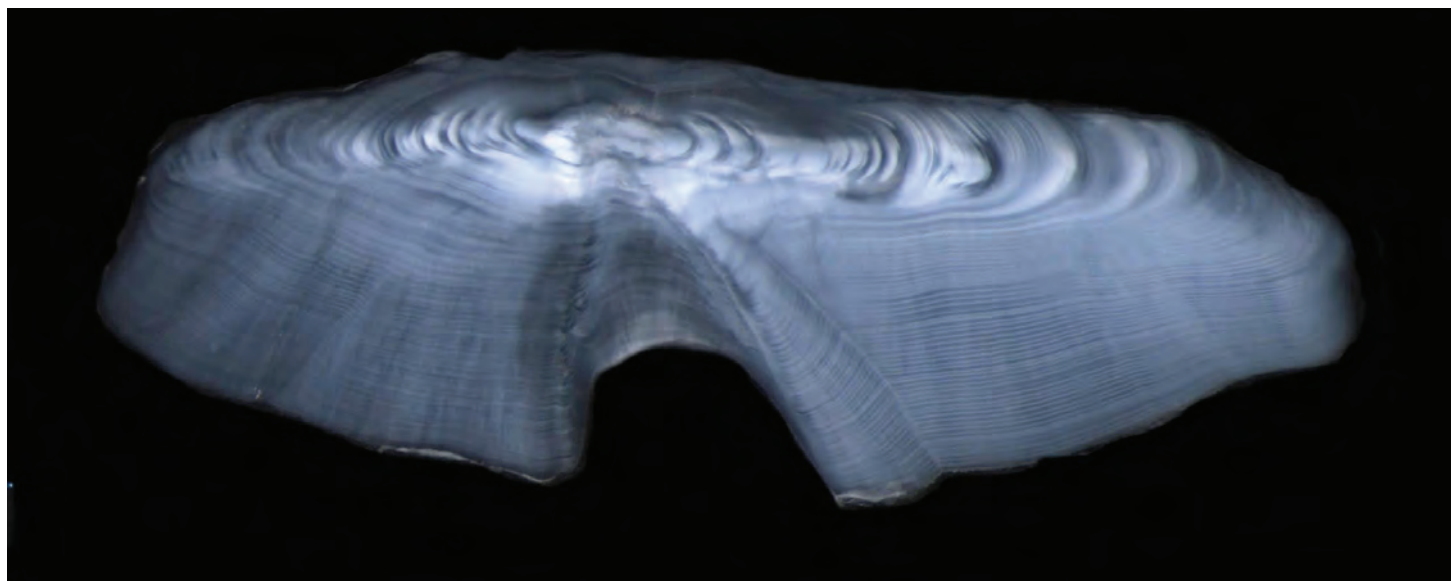
Backstory

On May 18, 1980, long-dormant Mount St. Helens erupted in southwest Washington, killing 57 people, flattening over 200 structures and 230 square miles of forest, and leaving a mile-wide crater. Charlie Crisafulli, a U.S. Forest Service research ecologist and one of the first to study the blast zone, and many others have spent decades figuring out how the eruption has shaped the region's ecology ("Backpacking the blast zone," *HCN*, 3/6/17).

Followup

Now, lessons from Mount St. Helens are proving useful in understanding Hawaii's Kilauea volcano, whose lava flows have obliterated at least 70 homes. The 1980 disaster showed how quickly a volcanic catastrophe can develop, Seth Moran, head scientist at the Cascades Volcano Observatory, told *The Oregonian*, and studies at Cascades and other observatories are helping scientists in Hawaii determine what might happen next at Kilauea. Meanwhile, Crisafulli and 32 other scientists have documented their environmental studies in a new book — *Ecological Responses at Mount St. Helens: Revisited 35 Years After the 1980 Eruption*.

JODI PETERSON



An otolith, magnified 80 times, from a splitnose rockfish that was born in the early 1930s and lived 56 years. Each set of light and dark bands represents a year, with different widths indicating varying environmental conditions. BRYAN A. BLACK

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Comb Ridge snakes between Butler Wash, left, and Comb Wash, right, as seen from the air. STEPHEN E.

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STROM

BEARS EARS: VIEWS FROM A SACRED LAND

Photos and text by Stephen E. Strom; introduction by Rebecca M. Robinson; poem by Joy Harjo
240 pages; hardcover: \$40.
The University of Arizona Press, 2018.

Stunning mesas, secluded canyons and sacred sites leap from the pages of this colorful tribute by photographer Stephen Strom. *Bears Ears: Views from a Sacred Land* celebrates the landscape and urges its preservation for future generations.

Rebecca Robinson, a journalist currently working on a book about the region, introduces readers to its cultural significance and history. For millennia, tribal nations have called Bears Ears home and left their mark on the landscape. The descendants of Mormon settlers also have deep ties to the land. Today, Bears Ears is in legal limbo as the Trump administration slashes protections.

Ultimately, the book stands as either a testament to the importance of what has been saved, or an elegy to what could be lost forever. In a passionate tribute, poet Joy Harjo, a member of the Muscogee Nation, writes, "Let there be no regrets, no sadness, no anger, no acts of disturbance to these lands."

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How to cover more of the West

Like the runaway climate-change train now careening through the seasons, the media environment in this country is rapidly running off the rails before our eyes, and there is no sign of it slowing anytime soon. Though a handful of national news organizations, such as *The New York Times* and *Washington Post*, are thriving, many newspapers are in free-fall, used by corporate owners for short-term profit as their advertising bases crumble. In recent months, editorial staff has been slashed at *The Denver Post*, *Salt Lake Tribune*, *San Jose Mercury News* and *Omaha World-Herald*, among others. Former *Denver Post* reporter Jason Blevins' grim account of that paper's gutting (see page 26) should concern everyone who sees honest reporting as essential to a functioning democracy.

So it is with a mixture of pride, excitement and some trepidation that I announce *High Country News'* plans to fill a small piece of the growing void by expanding our editorial team, including in a geographic sense — by dispersing our editors across a wider region.

By July, we will have an editorial satellite office in Gunnison, Colorado (led by Editor-in-Chief **Brian Calvert**, incoming Digital Editor **Gretchen King** and Assistant Editor **Paige Blankenbuehler**); a two-editor presence in Seattle, Washington (**Kate Schimel** and **Tristan Ahtone**, both associate editors); and one-person outposts in Moscow, Idaho (Assistant Editor **Emily Benson**); Portland, Oregon (Assistant Editor **Anna Smith**); and Tucson, Arizona (Associate Editor **Maya Kapoor**). In addition, *HCN* has contributing editors in Oakland and Los Angeles, California; Santa Fe, New Mexico; White Salmon, Washington; Norman, Oklahoma; and Bulgaria (yes, you read that right). Meanwhile, Paonia, Colorado, will remain *HCN's* headquarters, where the magazine is produced, subscriptions are served, money is raised, and the bills get paid.

The editorial dispersal is a significant change, but not entirely unprecedented. In the late 1980s, we hired a Great Basin editor (**Jon Christensen**, based out of Carson City, Nevada) and a Northwest editor (**Pat Ford**, in Boise, Idaho) to bring those regions more firmly into *HCN's* coverage. In the mid-1990s, Senior Editor **Ray Ring**

moved from Paonia to Bozeman, Montana, where he helped shape our coverage for the next decade and a half. In the 2000s, former editor **Jonathan Thompson** left Paonia for Durango (and later Germany and Bulgaria), where he continues to produce groundbreaking stories. And for three years before and after the election of **Donald Trump**, correspondent **Elizabeth Shogren** toiled away in the swamps of Washington, D.C. And it's not just editorial staffers: Our major donor adviser, **Alyssa Pinkerton**, set up shop in Fort Collins a year and a half ago, near the largest concentration of *HCN* readers in the country.

But the upcoming changes are the most ambitious yet; they present considerable logistical and communication challenges, not to mention emotional ones, as friends and colleagues move away. We've lost count of the intense, exhausting meetings we've held the last few months. Staff is learning how to work and communicate on virtual platforms and become competent at video conferencing. We're taking crash courses in tax codes and health insurance coverage across the region. And we are already planning periodic physical get-togethers to remain connected as an organization at the most human level.

It won't be easy, but we'll be stronger for it. Our far-flung staffers will extend the *HCN* community to a larger geography, where new readers can discover and interact with us. Their dispersal will build new alliances, provide invaluable fresh perspectives and spark ideas for the magazine. Ultimately, this evolving configuration will enable *HCN* to produce stronger, deeper journalism from the ground level, at a time when our society desperately needs it. Thank you, dear friends, for believing in our mission, and for supporting us as we seek to adapt and succeed in these turbulent times. —Paul Larmer, executive director and publisher

High Country News across the West







Reclaiming the Klamath

For the first time, the Yurok Tribe has one of its own to lead its legal battles

FEATURE BY ANNA V. SMITH

On a warm September Saturday in 2002, Amy Cordalis stood in a Yurok Tribal Fisheries Department boat on the Klamath River, in response to reports from fishermen that something was amiss on the river. On this stretch of the Yurok Reservation, the river was wide and deep, having wound its way from its headwaters at the Upper Klamath Lake, through arid south-central Oregon to the California coast. Cordalis, then 22, was a summer fish technician intern, whose job was to record the tribe's daily catch. A college student in Oregon, she'd found a way to spend time with her family and be on the river she'd grown up with — its forested banks and family fishing hole drawing her back year after year.

But that morning, something was wrong. Cordalis watched as adult salmon, one after the other, jumped out of the water, mouths gaping, before plunging back into the river. Her father, Bill Bowers, who was gillnetting farther downriver, looked up to see a raft of salmon corpses floating around the bend. The carcasses piled up on the banks and floated in eddies, as seagulls swept inland to pick at the remains.

Remnants of the fish kill lingered for weeks, as Cordalis and fishermen up and down the river looked on in shock. By the end of it, California and the Hoopa Valley, Karuk and Yurok tribes made a conservative estimate of the toll — 34,000 dead salmon along the Klamath — though officials said the sheer volume made a true count difficult. It was the largest fish kill in both Yurok and U.S. history, and its cause was no mystery. Earlier that year, the federal government had capitulated to public pressure from farmers and ranchers in the Klamath Basin and diverted water from the river to irrigate fields. The resulting low flows created a marine environment where fatal diseases could fester.

The Klamath water crisis and ensuing fish kill marked a pivotal moment for the Yurok Tribe. It shaped a generation of people, many of whom feel a fierce responsibility for a river that not only carries fish and water, but centuries of stories and struggle as well. As Amy Cordalis watched the salmon die, she told herself she would find a way to prevent similar tragedies. Today, she is the Yurok Tribe's general counsel — meaning that, for the first time, the tribe has one of its own to lead its battles in court.

A member of the Yurok Tribe pulls salmon from his gill net on the Klamath River on the Yurok Indian Reservation in Northern California, July 2015. This April, a district court judge ruled that endangered salmon on the Klamath are entitled to prioritized protection. TERRAY SYLVESTER



"We are back to the time of the tribes on the river again. We are reclaiming that governance now."

—Amy Cordalis,
general counsel for the
Yurok Tribe

SINCE THE FISH KILL, legal fights over the Klamath have rarely abated. As time goes on, though, the stakes increase, as salmon populations steadily drop, stream flows dwindle and disease blights the water. This year, snowpack was a paltry 46 percent of normal in the Klamath Basin by March, and Oregon's governor, Kate Brown, D, declared another drought in Klamath County. "Tensions are rising, people are looking for any source of water they can possibly use to get their crops wet," Scott White, executive director of the Klamath Water Users Association, told me. "It is an operational nightmare."

While the Yurok Tribe, the largest in California, has secured a number of legal wins for water and salmon, Cordalis told me recently that two main issues on the Klamath remain the same: an over-allocated river and dams that diminish water quality. What is different, though, is how the tribe is representing itself in court. As a lead attorney and a tribal member, Cordalis hopes to change those

two fundamental problems by creating a legal framework that prioritizes fish as much as it does agriculture. "We are back to the time of the tribes on the river again," Cordalis said. "We are reclaiming that governance now."

One of Cordalis' most important cases, *Yurok Tribe et al. vs. U.S. Bureau of Reclamation et al.*, is currently in the 9th U.S. Circuit Court of Appeals. In that case, the Yurok and Hoopa Valley tribes, joined by commercial fishermen, are suing the Interior Department's Bureau of Reclamation over the agency's water plan, which they allege is not adequately preventing the fish diseases that result from low flows. They argue that the salmon, specifically endangered coho, need more water to consistently flush out disease-causing parasites. Water districts and irrigators, namely the Klamath Water Users Association, have sided with the Bureau, disputing the need for increased river flows and claiming they can't give up any more water. This year, diversions away from irrigation have delayed farm-

ing, and White said he worries that some Klamath Basin farmers will go under.

As part of that case, in April, a district court judge ruled that endangered salmon on the Klamath are entitled to prioritized protection under the law. So when infection rates for salmon tipped over the legal limit later that month, water was again diverted from irrigators. The rest of the case has yet to be heard, but if Cordalis and her team secure a win, it will be an incremental step toward restoring Klamath salmon, and by extension the Yurok Tribe. The case and resulting water flows, she said, is "one of the most important conservation measures protecting Klamath River salmon from complete extinction."

IF CORDALIS SUCCEEDS IN WINNING this case and others, she will owe much of it to the family members who fought before her. Cordalis' grandmother, Lavina Bowers, née Mattz, the family matriarch, has lived through the acquisition of Yurok lands and water by non-Natives, confron-

tations with armed federal agents, and the gradual renewal of Yurok political will and culture. I met Bowers at the Requa Inn, a 104-year-old hotel owned by Cordalis' aunt (the first Yurok owners in nearly 100 years), which overlooks the Klamath River on the Yurok Reservation. It was a blue-skied January morning, and the light shimmered on the water's surface through the inn windows while Cordalis and her 2-year-old son, Keane, played nearby. Bowers wore a denim jacket and silk neckerchief, and as she described growing up in the 1930s, her traditional shell earrings swung gently back and forth.

As a child, Bowers lived upriver on a family farm, where she and her brother, Raymond, picked salmonberries in summer and rode a boat to school in the fall. It was a time of intense racism, socially accepted and legally codified in state and federal policy. At that time, the Yurok, a tribe long established along the rugged coast and Klamath River, had no overarching government and little say in what happened to its lands or people. Many of Bowers' peers were sent to boarding schools by the Bureau of Indian Affairs, a disruption that fractured her generation. Some returned, trying to earn a living in the fishing canneries in Klamath Glen on the reservation, or with the lumber companies, whose wealth was held primarily in non-Native hands. "Indian people have never really had justice," Bowers told me. "A lot of us didn't know how to stand up and talk for ourselves. I was an Indian kid that was treated like an Indian."

The Yurok signed a treaty with the United States in 1851, but white settlers, hungry for gold in the newfound state of California, pressured Congress not to ratify it. A reservation was established in 1855, but as early as 1874, settlers argued that it had been abandoned, and that they had a right to homestead. In 1887, Congress passed the General Allotment Act, essentially divvying up the reservation into small parcels for each Yurok, with any "surplus" lands going to non-Native homesteaders. Much of the allotted land thus passed out of Yurok hands. "Each time that I make a trip to the territory," a BIA superintendent wrote in 1918, "I have it more forcibly impressed upon my mind that somehow the Indians did not get a fair portion of the land."

Still, they had the river. In the early 1940s, despite a state ban on traditional salmon gillnetting, Lavina and Raymond would sneak down to the Klamath at night to fish. Under the light of the moon, they would set their long nets across the breezy river, lie on a sand bar and wait for the fish. When game wardens came by to pull up the nets, the children would hide under a blanket. "I used to lay there under the blanket thinking they'd hear my heart beat," Lavina said. "I'd try not to breathe."

Raymond Mattz was 12 years old

when he first got in trouble with a warden for gillnetting. As an adult, in September 1969, he was fishing the fall run of chinook salmon at the family's fishing hole, called Brooks Riffle — named for his great-great-grandfather. When a state game warden caught Mattz and a group of friends with five gill nets, Mattz claimed all five nets were his and was arrested. He then sued the state of California to return the nets, but the state refused to return them, claiming that Mattz could not legally gillnet in the state of California. The state argued that the Yurok Reservation had lost so much of its land to non-Native homesteaders and companies that it no longer met the legal definition of Indian Country. At its core, *Mattz vs. Arnett* was a challenge to tribal sovereignty, the ability of tribes to govern themselves. The case went to the U.S. Supreme Court, and the state lost. The court affirmed, in 1973, the Yurok Tribe's treaty rights to fish by traditional means, including gillnetting, and declared that the Yurok Reservation was indeed a part of Indian Country, a legal term that refers to lands held by tribes. Mattz's stand on Brooks Riffle is not only part of Cordalis' family lore but is also recorded in federal Indian law.

The Mattz case became part of a broader conflict in the Northwest called the Fish Wars. Triggered in part by the political momentum of the civil rights era, the Fish Wars included civil disobedience, such as "fish-ins," in which Indigenous fishermen would flagrantly practice their treaty-held fishing rights, only to be arrested. The movement was also galvanized by the landmark Boldt Decision of 1974, which reaffirmed the rights of tribes to co-manage their fisheries and to harvest according to various signed treaties.

"The fact that we won that right in the Supreme Court, you'd like to think that they decided the way that things should be," Bowers said.

Still, after the case was concluded in 1973, California found other means to invalidate the tribe's fishing rights. A Supreme Court decision in 1977 gave states the power over tribes to regulate tribal fishing for conservation purposes. In 1978, the California Department of Fish and Wildlife closed down Indian fishing on the Klamath River, ostensibly for conservation reasons. Lavina's son (and Amy's father), Bill Bowers, remembers that period well. Signs and bumper stickers put up by disgruntled non-Native fishermen appeared on and near the reservation: "Can an Indian, Save a Fish." Federal agents in riot gear enforced the moratorium by pulling up nets and ramming boats, and, the Yurok allege, by using physical violence and intimidation. "The hostility that was there was intense," Bill told me. They began fishing at night again, leaving their flashlights in the truck.

It was into this moment of unrest that Cordalis was born, in March 1980.

CORDALIS WAS THE FIRST of five siblings. From the time she was 5, Cordalis and her dad, a Yurok citizen and parole and probation officer, would drive from their family's home in Oregon to Requa, on the reservation, when the salmon began their spring run from the Pacific up the Klamath, and again in the fall when the fish returned to the ocean. The pair would hang out at the seasonal fishing camps along the river and at their family fishing hole at Brooks Riffle, where, Cordalis says, "it all began."

They would watch the salmon move up the river, scales glinting in the sun, and they would talk about the Yurok's history. The Yurok people have fished and eaten the same runs of Klamath salmon for so many generations, Bill told her, that their DNA is intertwined. He told Amy fishing stories and family history as they drove home, bouncing down the road, the truckbed full of chinook salmon. Bill would talk politics with his fishing



buddies, as Amy listened from the backseat of the cab of her dad's truck. "She was my cruising buddy," Bill told me.

Bill was forthright about the hardships the Yurok were up against — the drug and alcohol abuse and poverty that existed alongside pervasive racism, and social and environmental injustices. "You can change things," he would tell her, "but you have to do that within the prevalent system. The most effective way is working with that system."

IN 2004, TWO YEARS AFTER THE FISH KILL, a 24-year-old Cordalis began classes at the Pre-Law Summer Institute through the American Indian Law Center at the University of New Mexico, an intensive program for Indigenous law students that replicates the first eight weeks of law school. Helen Padilla, director of the center and a tribal member of Isleta Pueblo, told me the program is designed to "open the door for the opportunity for Indian people to be able to have a voice" in the

Amy Cordalis, general counsel for the Yurok Tribe, outside her office at the Yurok Tribal Community Building in Klamath, California, left, and above, at home with sons Brooks and Keane in their backyard garden in McKinleyville, California.

JOLENE NENIBAH YAZZIE

"It's just different perspectives that are out there, but they are identical issues."

—Scott White, director of the Klamath Water Users Association, talking about how irrigators see issues on the Klamath, compared to how tribal members see them

legal issues that affect them. Many of the students who go through the program do so for the same reasons as Cordalis, Padilla said: to give back to their tribe and improve their communities. "An Indian attorney has a much more vested interest in advocating for their Indian clients, and a better understanding of why a tribe might want to litigate or negotiate," Padilla said.

There, Cordalis began to learn the full scope of tribal sovereignty, the power of treaties, and the authority that tribes have in government-to-government relationships with the United States. Because tribes remain the sovereign nations they were before colonizers arrived, they have a unique relationship with the United States. Cordalis had known few lawyers before, and even fewer who were Indigenous. That experience, coupled with mentorship from the Indian law firm Berkey Williams, which often represented the Yurok, helped her understand how much could be done within a legal framework, inside the system. "It was the first time that I'd encountered these issues my family has been dealing with for hundreds of years, in an academic way," Cordalis said. It revealed how much agency the law could provide, and how legal decisions in one part of Indian Country could affect all tribes. "Up until that point, we were the clients," she told me. "We were the victims, frankly."

She also learned the limits of the law. A thesis she co-authored in law school analyzed a Supreme Court case that permitted the logging of Yurok ancestral lands, even though they had deep spiritual importance to the tribe. The justices decided that because the Forest Service owned the lands, the Yurok had no legal right to their management. Historically, she wrote, the United States has attempted to sever tribes like the Yurok from their lands, especially once legal title is forcibly transferred, regardless of a tribe's past relationship to the land. The justices, she argued, ignored history. "The tribal narratives underlying (the case) suggest the opposite is true — that tribal attachment to place persists before, during, and after legal conquest."

Cordalis graduated from Sturm College of Law, at the University of Denver, in 2007, and went to work as an attorney for the Native American Rights Fund in nearby Boulder. There, she learned the complexities of water law and how it intersects with Indian law. NARF was established in Boulder in 1971, with an all-Indigenous board. John Echohawk, NARF's executive director since 1977, was in the first class of students to graduate from the pre-law institute that Cordalis attended. "For so long, the only choices were non-Indian attorneys," said Rodina Cave Parnall, a Quechua Peruvian Indian, director of the institute. Since the institute's inception in 1967, when there were just a handful of Indigenous lawyers, some 1,200 students have graduated, including former Assistant Secre-

tary of Indian Affairs Kevin Washburn, a member of the Chickasaw Nation. Native American lawyers and leaders have steadily established themselves across Indian Country and beyond, as a new, younger generation is filling the ranks.

AS CORDALIS BEGAN PRACTICING LAW, the issues on the Klamath continued to evolve. In 2006, the license to operate the Klamath Hydroelectric Project expired. The project's eight aging dams cut off miles of habitat for salmon, blocking their ability to run up the river, and that year, due to the low salmon numbers, commercial fishing was closed along more than 400 miles of coastline. The hydropower operator, PacifiCorp, faced the possibility of environmental lawsuits if it did not retrofit the dams to help salmon, but the cost of doing so outweighed their profitability. So, in 2009, PacifiCorp began working with a coalition of politicians, conservation groups and tribal nations. The working group, which called itself the Klamath River Renewal Corporation, reached an agreement to remove four of the eight dams on the Klamath, pending federal approval, beginning in 2020 — the largest dam removal project in the United States.

In litigation, Klamath Basin irrigators remain agnostic about the dam removal, because its effect on their interests is unclear. Some proponents say removing the dams could alleviate legal pressure on agriculture, because without dams, a more natural water cycle could help flush out fish diseases — and decrease lawsuits. Meanwhile, the farmers and ranchers on the Upper Klamath continued to struggle. During the drought of 2010, the Klamath Basin received \$10 million from Congress. Two years later brought another drought, as did the following year, and the year after that (and the next year, and the next).

In 2013, severe drought meant that farmers' water was cut off during critical parts of the growing season. Amid rising discontent, Oregon state watermasters — a state position that helps track water rights — had to personally visit farms and shut off their irrigation water. "People are hurt, they are angry, and I think there's grieving," Roger Nicholson, a cattle rancher in the Wood River Valley near Fort Klamath, told *HCN* at the time. "To lose the productive ability of our land is almost like the loss of a family member. It's deep down."

The emotional events of that year drove one watermaster, Scott White, to become the new director of the Klamath Water Users Association in 2016. "At the end of the day, farmers are the backbone of America," White told me. "To be able to grow food and feed America: It's hard to do that without water."

The Klamath Basin's non-Native agricultural ties to the land are deeply entrenched. In 1902, Oregon and California both ceded land to the federal government, which then opened it to

homesteading with the promise of water rights for farmers. Veterans of both world wars were given preference, as wetlands were drained and dams were raised on the Klamath. The Bureau of Reclamation's mission for the Klamath Project was to "reclaim the sunbaked prairies and worthless swamps."

Ever since, these communities of farmers and ranchers have hung on like stalwart junipers, enduring economic hardship and drought, with the support of the federal government. But that's been changing slowly, particularly since endangered and threatened species have gained priority under the law, and since tribes began exercising their senior water rights. (Tribal water rights, which can date back to original treaties, often provide the oldest rights on a river.) That long history means that farming out here is more than an income; it's a culture. And that produces a binding knot of paradoxes between river users. "When I do have those conversations with those folks, whether it's the Klamath Tribes or the Yurok Tribe, and they talk about their issues and concerns, I mean, it sounds like I'm talking to my guys," White, the most frequent legal opponent of the downstream tribes, told me. "It's just different perspectives that are out there, but they are identical issues."

IN 2014, THE YUROK TRIBE offered Cordalis a position on its legal team. It had always been her intention to return to Requa, so Cordalis and her husband, Daniel Cordalis, a citizen of the Navajo Nation and an attorney, moved back with their 2-year-old son, Brooks — named for the family riffle on the Klamath. But they found it difficult going; they couldn't find a house, or daycare, or a good grocery store. Food insecurity is prevalent across Del Norte and Humboldt counties, and the closest store to Klamath Glen is about 30 minutes away. After a few months, Daniel was offered a position as an attorney with the environmental law group Earthjustice, in Boulder, so they returned to Colorado.

Later that year, the Yurok Fisheries Department recorded a sweeping epidemic on the Klamath River: 81 percent of its juvenile salmon were infected with *Ceratanova shasta*, a deadly parasite that thrives when water flows are low. As Cordalis resettled in Colorado, *C. shasta* infection rates rose, hitting 91 percent the following year, an outbreak that would damage the fish population for years to come. In August 2015, Cordalis had her second son, Keane, named after the Yurok word for fisherman. A year later, when the Yurok Tribe asked her to be the tribe's general counsel, she agreed. She moved her family to McKinleyville, an ocean-side town just south of the Yurok Reservation, and got to work.

Cordalis, who is now 38, is only the second tribal attorney in the tribe's history. The first, John Corbett, started in the 1990s with few resources to work with.



Yurok Tribe Fisheries Department Director Dave Hillemeier, left, and technician Robert Ray on the Klamath River on the Yurok Reservation.

JOLENE NENIBAH YAZZIE

“When he first started, they gave him a milk crate, a pad and a pencil,” Cordalis told me. By contrast, Cordalis now has a staff of five that prioritizes water issues, dam removal and reacquiring Yurok land for Yurok ownership. While her team represents a broader trend in Indian Country, Native Americans still make up just .2 percent of lawyers nationwide. Still, an Indigenous-led team can change the way law is practiced.

Chief Justice of the Yurok Tribe Abby Abinanti, herself a tribal member, was the first Native woman to pass the bar in California, in 1974. Cordalis’ role as both a general counsel and a Yurok citizen is an important development, Abinanti told me. “A lot of what you do as a lawyer is communicate with people who don’t know the story,” Abinanti said. “And the best storytellers are the ones who are a part of that story.” Reclaiming the legal narrative allows the tribe to litigate in the Yurok way. While law is often about individual rights, that’s not all the tribe focuses on. “It isn’t, ‘I have the right to do this to you,’ it’s, ‘I have a responsibility to do this for the community,’ and that is a very different approach to the world,” Abinanti said.

“Having a Yurok person in this role can have an impact,” Cordalis said,

“because there’s a lot of ways to interpret the law. It’s going to make a difference, because we’ll exercise that sovereignty like Yuroks, not a county or state government.”

Cordalis told me there are many avenues to effect change, be it through science, activism or litigation. Her legal approach, she said, is to identify common ground where possible. With the irrigators, it’s the Klamath. “That creates the tension, but it also means we both rely on the Klamath River for our livelihood,” she said. “And I think that connection to place and a resource creates a sense of respect and duty to protect.” Cordalis said she feels less personal resentment toward the upstream irrigators and the feds than some of her elders and peers do. After all, it was her father, uncle and aunts, not her, who endured armed standoffs on the Klamath. Even so, the family stories drive her, she said. They carry a weight that brings momentum to her work.

“Lawyers aren’t born, they’re made,” Abinanti said. “It’s a lot of hard work, and she’s going to do the work. I do believe she is the future.”

Within her first six months on the job, Cordalis was involved with two major water cases that have implications for salmon survival and the Klamath’s health. One of them is the case against

the feds currently in the 9th Circuit. The other was a battle over water allocation on the Trinity River, a major tributary to the Klamath, and whether water should go to salmon, or be diverted to California agriculture. In 2017, the 9th Circuit ruled that the amount of evidence demonstrating the salmon’s need was “staggering,” and that the restoration of the fisheries on the river was “unlawfully long overdue.” The court ordered the flushing flows to rehabilitate the Trinity, which had lost 80 percent of its salmon habitat due to the irrigation project on the river, to continue.

Both cases represent progress, but an even bigger task may yet lie ahead. While piecemeal litigation addresses problems one by one, no successful, large-scale agreement to deal with water allocation on the Klamath exists. “It’s a living, organic basin, and it will be there forever, and people need to have long-term solutions that they control, rather than courts,” said Paul Simmons, who represents the Klamath Water Users Association and was involved with negotiating the last agreement. Cordalis agrees. While lawsuits can be a useful tool, she said, “nobody really wins through litigation.” Water is not the only answer to restoring the fishery, and a comprehensive review of river manage-

"You talk about the American Dream. My family has experienced the exact opposite, through assimilation and genocide — just taking, taking, taking."

—Amy Cordalis,
general counsel for the
Yurok Tribe



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Wildfires make for a smoky backdrop as marchers kick off the 55th annual Klamath Salmon Festival with a parade in Klamath, California, last August. JOLENE NENIBAH YAZZIE

ment is needed to support both sustainable agriculture and the return of a pre-dammed river, she said.

The last attempted negotiation, the Klamath Basin Restoration Agreement, died after Congress failed to pass the necessary legislation to support it. That agreement took years to formulate and was propelled by a friendship between the former executive director for the Yurok Tribe, Troy Fletcher, and the former director of the Klamath Water Users Association, Greg Addington, who used to golf together. "The real beauty of the past agreement was the relationships that were built," said White, the current director. "The tragedy is that I think that we're back in that era of litigation." He's still looking for his "golfing partner," he said. In the meantime, the severity of this year's drought has him worried. "Yes, absolutely we want to get to a long-term solution of some sort, where we don't have to face these issues year in and year out. But on the other hand, if we don't survive this year, we're not going to be at a table to talk about that."

The irrigators and river tribes have a long road to rebuild, starting from the rubble of three previously failed agreements. Under the Trump administration, Alan Mikkelsen, a senior advisor to the secretary of Interior, has begun contacting stakeholders about the potential of a new agreement, because at this point, it's obvious that no one who depends on the river is doing well — not the farmers, not the fishermen, and certainly not the salmon.

LAST AUGUST, THE YUROK TRIBE held its annual Salmon Festival, a public celebra-

tion of the first return of native chinook to the Klamath each fall. The 2017 festival was overshadowed by painfully low salmon runs, so much so that festivalgoers ate salmon from Alaska instead. (The year before, they'd had hamburgers and hot dogs.) Because of the long life cycle of chinook, the juvenile salmon populations plagued by *C. shasta* in 2014 and 2015 were returning as adults, with deeply thinned ranks. The tribe cancelled commercial fishing for the second year in a row, and, for the first time, it cancelled subsistence fishing, a particularly personal blow to families on the Klamath. As the festival got underway, the nearby docks were unusually quiet — devoid of boats, burger shacks and sun-beaten fishermen. A parade went on under skies smudged with smoke from southern Oregon wildfires.

"It's saddening and sickening to see what's happening to our salmon runs in the Klamath River," Chairman Thomas O'Rourke told me in his office, a few days after the parade. "The impacts are major; it's a way of life. In the modern world, people take things for granted and say, 'You can eat other things.' Here, our people depend on our resources to live."

Two months later, Oregon's irrigators appealed the lower court's decision to allow increased flows for the salmon — the next step in a potentially long path to the U.S. Supreme Court.

In January, I drove with Cordalis to the mouth of the Klamath, where the river empties into the Pacific Ocean. We were supposed to take a boat upriver, to see Brooks Riffle, but the boat had broken down, so we walked the quiet docks instead, the estuary water in the afternoon

light glinting like fish scales. Little Keane ran ahead, as Cordalis told me about the sense of loss she feels at not having seen the Klamath at its wildest and healthiest. She's never seen the salmon runs she heard about in her dad's stories. "Grandma and Great-Uncle Ray talk about huge fish runs; I've never seen that," Cordalis said.

The Yurok's ancestral lands were once called the Redwood Empire, a vast swath of land that stretched inland through old growth and rocky cliffs, with the Klamath running through it like an artery, the coho salmon red and thick as blood. As Yurok lands were taken, the Klamath suffered, and today, even if the four dams come down, even if the fish got all the water in the Klamath, the salmon would still have to contend with an unhealthy ocean.

We returned to the car with Keane in tow, and, as the sun set, began the drive home. "You talk about the American Dream," Cordalis said, the coastal mists and forest shadows darkening in the twilight. "My family has experienced the exact opposite, through assimilation and genocide — just taking, taking, taking."

Despite all that, the Yurok have always had the Klamath and its salmon. Today, that sense of place sustains the tribe's persistence and underpins Cordalis' work. A generation ago, no one would have thought it possible that the four dams could come down. Now, it seems it's just a matter of time. "We see who we are, and our core values don't change," Cordalis said. "And the funny thing is that we've been fighting that same thing since white people came here, so we're kind of good at it by now." □

The best water rights in the West

But tribes often must negotiate settlements that need federal approval

Tens of thousands of people on the Navajo Nation lack running water in their homes. But that could change in the coming years, as the Navajo-Gallup Water Supply Project goes into effect. It's expected to deliver water to the reservation and nearby areas by 2024, as part of a Navajo Nation water rights settlement with New Mexico, confirmed by Congress in 2009.

Three other Native water settlements currently await congressional approval. They arise from federal legal decisions recognizing that many tribes in the West hold water rights that largely pre-date — and therefore override — the water rights of non-Native settlers.

Many tribal nations are currently asserting those rights as a way to ensure economic vitality, affirm sovereignty and provide basic services that some communities lack. In many places, however, Native water rights have yet to be quantified, making them difficult to enforce. Settlement is usually the preferred remedy; it's cheaper, faster and less adversarial than a lawsuit, and it can include funding for things like pipelines or treatment plants. With settlements, “the tribes are able to craft solutions that work for them and that can be more flexible than anything that could be achieved through litigation,” says Kate Hoover, a principal attorney for the Navajo Nation Department of Justice water rights unit.

Once negotiations are complete, Congress has to confirm the settlements. Here are the three introduced in the Senate this session:

THE SETTLEMENT: Hualapai Tribe Water Rights Settlement

THE TAKEAWAY: This settlement allocates 4,000 acre-feet of Colorado River water per year from the Central Arizona Project to the 2,300-member Hualapai Nation. It also authorizes federal spending for a water pipeline to Peach Springs, the reservation's main residential community, and Grand Canyon West, an economically important tourist destination featuring a horseshoe-shaped “skywalk” that juts out over the canyon.

WHY IT'S IMPORTANT: The legality of Native water rights settlements stems from a 1908 U.S. Supreme Court case involving agricultural irrigation. *Winters v. United States* established that when reservations were created, they included an implied right to water.

Subsequent legal decisions confirmed that so-called “reserved water” could also be used for livestock, drinking water and

even commercial purposes. That's crucial for this settlement, because the Hualapai Nation plans to use a portion of its water to expand Grand Canyon West — and its economy. “We have done everything possible to provide jobs and income to our people in order to lift them out of poverty — but the lack of a secure and replenishable water supply on our Reservation is our major obstacle to achieving economic self-sufficiency,” wrote Damon Clarke, chairman of the Hualapai Nation, in testimony to the U.S. Senate Committee on Indian Affairs.

THE SETTLEMENT: Navajo Utah Water Rights Settlement

THE TAKEAWAY: This settlement affirms the Navajo Nation's right to 81,500 acre-feet of water each year — enough to serve about 160,000 households — from the Utah portion of the San Juan River, a Colorado River tributary. In addition, it would establish funds for treating and transporting drinking water.

WHY IT'S IMPORTANT: In many Native water rights settlements, tribes agree to give up a portion of the water to which they're entitled — often allowing other groups to continue using that water, which might otherwise have been cut off — in return for expensive water projects, typically built by a federal agency.

The Navajo Utah settlement is different: It would transfer money directly to the tribe for water infrastructure. During a U.S. Senate Committee on Indian Affairs hearing in December, Russell Begaye, the president of the Navajo Nation, explained why the tribe, rather than the

U.S. government, should lead the work: “It's important as a sovereign nation that we are able to do that — employ our people, use our laws — in order to build and construct any kind of construction that may take place.”

THE SETTLEMENT: Kickapoo Tribe in Kansas Water Rights Settlement

THE TAKEAWAY: This settlement confirms the right of the Kickapoo Tribe in Kansas to pull 4,705 acre-feet of water per year from the Delaware River Basin in northeastern Kansas. It would be a milestone in resolving long-standing disagreements over how to ensure that the tribe has reliable water, even during droughts.

WHY IT'S IMPORTANT: Kansas, like much of the West, is prone to drought. This settlement would help the Kickapoo deal with dry periods by allowing the tribe to store more than 18,000 acre-feet of water in a reservoir that has yet to be built, but that has been contemplated for at least 40 years. A dispute over how to acquire the private land that the reservoir would flood led to a 2006 lawsuit, and, eventually, to settlement negotiations, which concluded in 2016.

Experts say it's not unusual for settlements to take years or even decades to complete, and that securing congressional approval requires balance. “Ultimately, these settlements are political instruments,” says Steven Moore, a staff attorney at the Native American Rights Fund and an advisor to the Kickapoo Tribe in Kansas. “You really have to work these settlements out so that it's a win-win for everybody.” EMILY BENSON



Survey work begins for the Navajo-Gallup Water Supply Project on the Navajo Nation, which should bring running water to thousands of Navajo homes by 2024.

U.S. BUREAU OF RECLAMATION



Shasta Dam, built in the 1930s and '40s, could be raised another 18 feet under a new proposal. ANTHONY DUNN / ALAMY STOCK PHOTO

Interior revives the push for a higher Shasta Dam

Both California and the Winnemem Wintu Tribe oppose the project

"It's death by a thousand cuts, and the dam is another cut."

—Noah Oppenheim, executive director of the Pacific Coast Federation of Fishermen's Associations, who says raising the dam would harm chinook salmon downstream

California's largest reservoir, Shasta Lake, sits where the dry Central Valley meets the rainier, mountainous northern part of the state. At its western edge is Shasta Dam, 602 feet high, built by the Bureau of Reclamation between 1938 and 1945 to help irrigate California. For decades, agricultural and municipal water districts have sought to raise the dam to capture more water as it runs out of the Cascade Range through the McCloud, Pit and Sacramento rivers. Environmentalists have long rallied against the proposal, and state officials contend such a project would violate California law. Now, though, with a push from some members of Congress and the current Interior Department, the idea has been given new life.

In January, the Interior Department informed Congress that, under the Trump administration, it had a "renewed focus on the development of new water storage in California and elsewhere." Austin Ewell, a land and water use lawyer from Fresno, California, who became Interior's deputy assistant secretary for water and science last fall, recently told a water

authority meeting in central California's San Joaquin Valley that construction on Shasta could start as early as late 2019.

Shasta Dam is a critical part of the Central Valley Project, a sprawling water system that runs 400 miles from Redding to Bakersfield. Shasta Lake holds 4.5 million acre-feet of water, allowing for hydroelectric power, flood control and critical water storage.

But the dam also looms large in the life of the Winnemem Wintu Tribe, whose members live nearby. The people were forced from their land when the dam was built; in fact, their ancestral burial grounds were flooded by the reservoir.

Tribal Chief Caleen Sisk says 183 graves were dug up and moved when the dam was constructed. Others, however, were left behind. "There are a lot of burial grounds under the lake and will be more if they raise the lake," she says. More ancestral land would be swallowed, including the site of a traditional coming-of-age ceremony that the tribe still uses today. Sisk also opposes raising the dam because it could threaten salmon populations already decimated by low stream flows, habitat loss and waters increasingly warmed by climate change. Salmon no longer live in the rivers above the dam; downstream, they continue to struggle.

Hundreds of miles downstream, coastal fishermen also worry that enlarging the dam would harm the last remaining local chinook salmon. Noah Oppenheim, executive director of the Pacific Coast Federation of Fishermen's Associations, says the project prioritizes farms over fishing. In the late 1970s, nearly 5,000 commercial fishermen netted and hooked salmon off Northern California; now, fewer than 400 do. "It's death by a thousand cuts, and the dam is another cut," he says.

Federal agencies appear to disagree about what a higher Shasta Dam would mean for salmon. A U.S. Fish and Wildlife Service draft report obtained by Friends of the River through a Freedom of Information Act request said the raise would likely prove detrimental to endangered chinook salmon, because it would decrease downstream flows. But project supporters point to a different report, by the Bureau of Reclamation, which says the project could actually benefit salmon by creating colder waters on the Sacramento River.

Some of the biggest champions of raising Shasta Dam are agricultural districts. "The reality is, people need water and farmers need water," says Tom Birmingham, general manager of Westlands Water District, the largest agricultural water district in the United States. "We have to use every tool available ... and being able to capture water in storage during periods of high runoff has to be one of those tools." Raising the dam would provide an additional 600,000 acre-feet of water annually — enough, for example, to irrigate over 275,000 acres.

Westlands' critics respond that raising the dam will mainly benefit corporate ag interests. But Birmingham says thousands of workers will suffer if districts like Westlands don't receive enough water. During intense regional drought in 2015, allocations were zeroed out, and farmers were forced to fallow fields.

There are many unanswered questions, including the vitally important one of who would pay for the project. An 18-foot boost would cost at least \$1.3 billion. So far, the project has only \$20 million from the 2018 federal omnibus bill. Nevertheless, Erin Curtis, a Bureau of Reclamation spokesperson, told *HCN* the agency plans to move forward this year with pre-construction design while it looks for potential cost-sharing partners.

Meanwhile, the state of California is gearing up for a fight. State officials say raising the dam would violate California's Wild and Scenic River Act, which protects a stretch of the McCloud River for its trout fishery and "free-flowing condition." And, if the project does get a green light, several environmental groups will likely sue the federal government or cost-sharing water districts. TAY WILES

Tay Wiles is an associate editor for *High Country News*. [@taywiles](#)

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An American creation story

What the Ice Age West says about our future

*I think of the
trickster god
Raven, of
course, and
the first crack
of light that
entered the
clamshell at
the begin-
ning of time.
Raven opened
the darkness
and out we
poured.*

On a dry lake basin in northwest Nevada is a series of rock art panels dated to 14,800 years ago, the oldest petroglyphs in North America. A carbon-bearing mineral formed every time Lake Lahontan rose and inundated the rock art, leaving a patina that could be dated. The layers of patina span from 14,800 to about 10,500 years ago, glyphs added consecutively every time the lake dropped. Between 14,800 to 13,100 years ago, the boulders were exposed to air, and people worked on them. Lake levels rose and submerged the boulders for a couple thousand years, and exposed them again from 11,300 to 10,500 years ago, when people picked up the task as if they'd never stopped. This is continuity, a remembered place over the final 5,000 years of the Ice Age.

I traveled to this ancient rock art with my family, one of the last road trips we took together, my lap strewn with maps as my wife drove across empty basins and ranges along a Nevada highway. The rock art was not a marked locality. Finding it took some triangulation, reading between the lines of archaeological reports. We had it narrowed down to a sub-basin within Lahontan, an arm of an arm. A winding dirt road led us to a barbed-wire cattle gate, the sign saying to close it behind us. Out of a clutter of empty juice boxes and camping gear, we spilled into the Nevada desert.

A spring came out of the mountainside, its source roughly fenced with barbed wire. A clear stream issued from the ground, watercress waving in the current as the spring flowed out of its luscious, vegetated enclosure down to the cattle-smashed slope below. A squared fence was all that kept the spring from becoming a trampled, muddy crater. It was an emerald on the hill, a point of life and yarrow flowers. As we walked by, we stopped for the bumblebees and birds inhabiting this gushing well, this emergence. In the Ice Age, it must have roared.

As kids glided ahead through the dry grass of midsummer, we found signs of occupation. Some of the bulbous tufa formations had eroded open and were hollow inside, their floors buried in wood-rat droppings, rough ceilings blackened with smoke. At night, these must have looked like a hive, lights flickering atop each other at the edge of a lake, people living as if in a clutch of grapes. Paisley, in Oregon, would have looked similar, the caves lit along the edge of their own lake at about the same time, give or take a few hundred centuries.

The tufa is like pumice, easy to etch or scratch. We found a flat-faced boulder of this rock that had been deeply cross-hatched by human tools. Well-worn, the geometric grooves were lightly coated with minerals from the rise and fall of the lake

behind it, now dried to a salty crisp. Both kids were mildly impressed but more interested in tearing off, playing tag and racing across the slope. Here, people had been making the first banners of themselves, the original drive-in theaters. They had stood in this same place, their feet beneath ours. Jado, with a 16-stitch Alaskan scar on his forehead, looked at the rock art and said, "I don't know what's the big deal about a bunch of X's," and ran away.

I felt as if I'd been going from landmark to landmark, asking, *Are you my mother?* Like a lost child on a lost continent, I searched to root myself and find solid ground. I visited the oldest sites as if on a pilgrimage, stopping to recognize those who came before, lineages upon lineages, arrivals upon arrivals leading back to the first flicker of a campfire, a panel of figures etched onto clusters of tufa boulders in Nevada, one of the earliest human lights on the continent.

Another stop I wanted to make was the Black Rock Desert, up an arm of Lake Lahontan an hour or two away from this panel. Our task as a family was filling in maps, following back roads, unfamiliar turns, high on D4, the dopamine receptor that fires our species' yearning for adventure, or perhaps on whatever mythology of childhood we told ourselves. The next day, we hit the Black Rock playa on a road that became no road, a dusty pan with nothing on it, no reason to drive in one place or another, the ground too hard to take a tire track. Construction had yet to begin on the annular city that would rise here. The lake bottom of Lahontan was still empty.

We triangulated on last year's city the same way we had on the rock art, and I asked to be let off. I wanted a few minutes alone on the playa, breathing on this lake bottom.

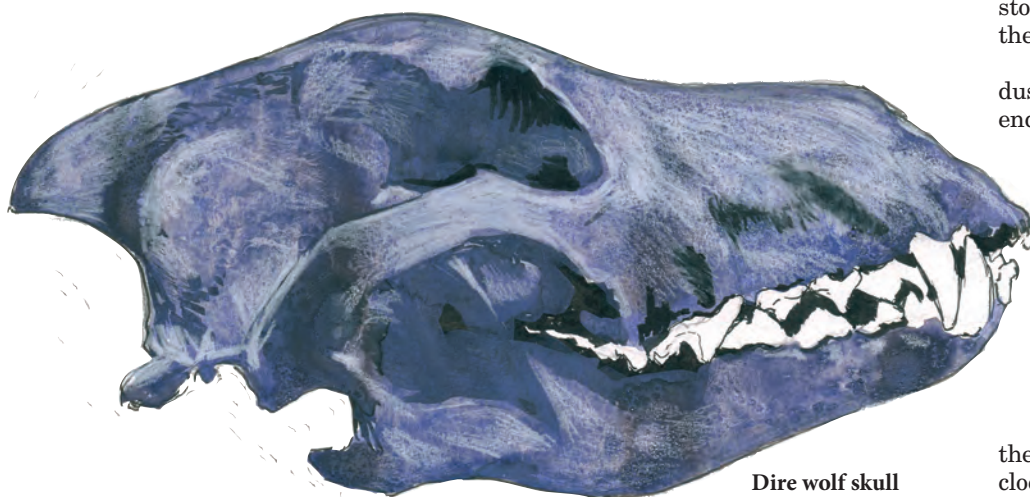
My wife stopped to let me out. Kids climbed through their windows, out onto the running boards, and banged car metal with their hands when they were ready. The SUV rolled away like an amusement park ride, their mother at the wheel, leaving me standing on the open, white plain. The vehicle became smaller, shouts of glee fading to a pinprick, almost silence. The ground was cracked and featureless. I thought there had to be something, an artifact, a spray of glitter, or charcoal from the giant wooden man they would build and burn to the ground, but I saw nothing. The site had been thoroughly cleaned, the city erased, maddening for future archaeologists.

I looked for the throngs in my imagination, conjuring people, dust, and fire. Half-naked crowds rose from the ground. It was the center of the city and a giant wooden man, effigy of ourselves, burned with ferocity, showering the stars with plumes of sparks. I walked through the apparition of this city, aware of what happened as if we'd been here before, playing out this story like we play out all our stories, coming back and pounding the earth with our feet.

I listened for them, but heard only my steps across playa dust. For all we do, we vanish this easily, opening a space at the end of one age to send our children into the beginning of the next. The dot of the SUV swung around a couple miles out.

It became larger and I began to hear the engine and the whoops of two boys coming back to me. They hopped off before a full stop, testing their bravery as their feet hit the ground running. Given the extra momentum, they sprinted like fawns across the expanse, leaping and shouting, the sounds of their joy fading into desert air.

The picture that came across Alexander Rose's cell-phone looked like a blackness within blackness, a hole within a hole. Rose has been leading a team through the Long Now Foundation in the construction of an enormous clock designed to run for 10,000 years. He said that excavators



Dire wolf skull

ESSAY BY CRAIG CHILDS
ILLUSTRATIONS BY SARAH GILMAN

in West Texas had been blasting a tunnel into solid limestone where the clock would be installed when they came across a cavern never before opened to outside air, a secret space within the earth. They'd taken a picture of their find and sent it to him.

Rose said this new void could hold up progress on the clock's placement, or at least make the project more interesting. The clock was being built and it would be placed inside the chamber they were excavating, where it would tick-tock gently for the next 10,000 years. He said they didn't know how deep this new cave went, but workers told him when they shouted into it, it made their voices echo.

I think of the trickster god Raven, of course, and the first crack of light that entered the clamshell at the beginning of time. Raven opened the darkness and out we poured.

Rose was the project manager for this mechanism being built of titanium, ceramic, and stone, materials chosen so that they would not rust or fuse together over time. He said it was not a time capsule per se. It was a clock, a message to the future and a way for us now to understand the larger time frames we're involved with, responsibilities that last beyond lifetimes. It would run off pressure bellows rising and falling with the sun, turning an array of gears, some large enough they could be running Big Ben. Its counterweights were 5 tons each and the size of cars.

By 10,000 years ago, climates had turned toward a warm and rainy start of the Holocene. The Americas were fully occupied, nearly every decent rockshelter bearing toolstone and charcoal. Mammoths, sabertooth cats and dire wolves had been gone for long enough they would have been myth, turned into tales of monsters that once ruled the world. Eating smaller game in the Holocene, in some places eating more grass seed and root than meat, and painting ghostly imagery on canyon walls with red ochre, these people came from the first people, the original ancestry, birth of Native America.

Rose and I were in a Northern California warehouse where clock parts were being built in an industrial district north of the Golden Gate Bridge. Mechanisms were separated, gears in clusters suspended from rafters where engineers had been installing, then carefully aligning the components. The workspace hummed from stress tests on ball bearings sped up to match ten thousand years of rotations, seeing if they could withstand the wear. Designers were serious about the machine working that long. Once underground, the clock would have an entrance and exit for visitors to pass through. He said the idea isn't so much to have visitors anytime soon, but in the future — might be centuries from now, might be thousands of years.

Besides this new cave problem, Rose was working with artists and linguists, trying to come up with what to put on signs that would explain how the clock functions. The idea is that people would enter it, read the instructions, and calibrate the dates properly, causing the clock to chime like a giant music box.

Rose didn't think we'd be speaking English 10,000 years from now. In several hundred years, the words on the page would require translation. Definitions and spellings would change, new words brought in, altering the way sentences are spoken and ideas conveyed. The way we conceive time and space, the flow of events, is conceded into what we say, how we say it. The clock will reach beyond that. He waved his phone in the air, indicating how easy it is to become trapped in the small, digital box of now thinking this is all there is.

He told me that a spiral staircase would rise through the interior of this giant clock. The staircase would be unlit, in near-complete darkness. Rose sees people coming as a pilgrimage, torches or headlamps or whatever form of illumination might be used for winding into the well of the machine.

Rose's phone rang again, a call from the excavators. He said he had to take it; they'd be wondering if work should resume. As he walked away, I ran my fingers along the cool titanium teeth of a gear. Rose had welcomed my touching them, letting me give them a nudge. Several inches of turn had budged the whole thing. So incredibly balanced was it all that as soon as I moved one, other wheels began moving across the contraption, action and instant reaction.

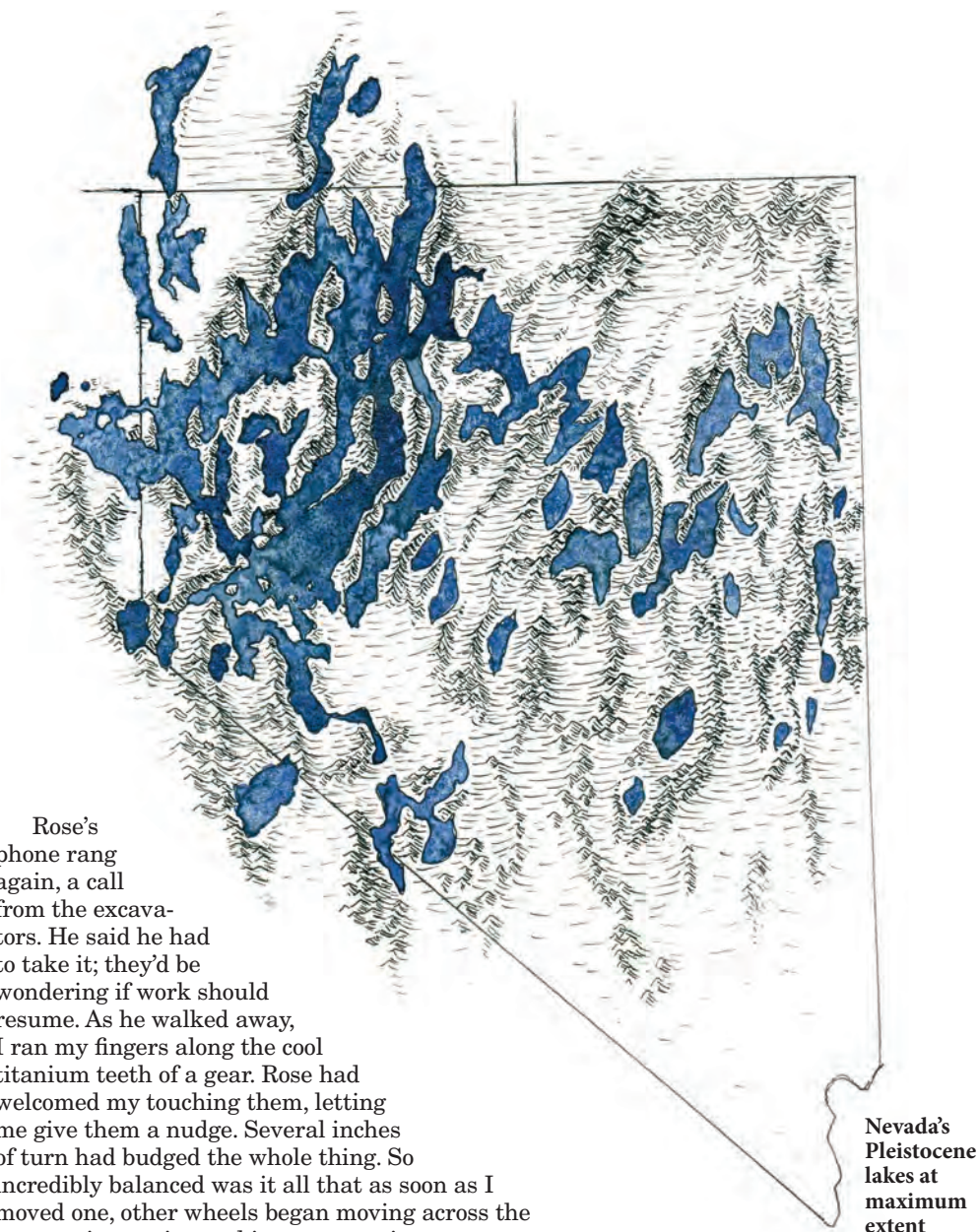
The largest assembly of gears hanging from the rafters was based on a star-shaped center known as a Geneva drive, a technology used originally in Swiss watches. This is a circle and square combined, a device that transfers continuous motion into incremental strokes. It is the effortless cruise of the sun broken down to the tick marks of seconds. You might say it's how we invented time.

The 10,000-year clock would be our artifact left in a cave. To understand who was here, you might dig it out and study its pieces. Another site in the Nevada desert was already being selected for a hypothetical second clock, as if we were seeding the land, adding our version of Clovis caches under boulders. It may be a message from an ineffable past for people in the future, their ears pressed into a can attached to a string where they listen for our lips to move.

I would tell them of the roaring overpasses around this warehouse, their stark shadows cast onto streets below, abandoned shopping carts, plastic drink cups smashed on asphalt, cars parked for so long their undercarriages are laced with spiderwebs. This is our atlas, a world that will be lost by the time this clock winds down. What kind of lost, I can't say. Whoever returns to this place might think it was a blink of the eye, or they might marvel at the ingenuity of the makers, wondering what ancient people had come this way.

I would tell them what was indelible in our time, the deeply forested hills above the city, sea crashing to mist on a rocky coast, rivers dancing through the granite of the Sierra. These will remain, I pray.

I reached in, grasped the biggest gear, and gave it a good, hard spin. Cogs bit into each other. Wheels turned. The machine woke. As smooth as breathing, time began to tick. □



Father, explorer and author Craig Childs has published more than a dozen critically acclaimed books. His writing has appeared in *The New York Times*, *Adventure Journal Quarterly*, *Men's Journal* and *The Sun*. He lives in southwest Colorado.

Adapted from Craig Childs' most recent book, *Atlas of a Lost World: Travels in Ice Age America*. Published by arrangement with Pantheon, an imprint of the Knopf Doubleday Publishing Group, a division of Penguin Random House LLC. © 2018 by Craig Childs. Illustrations © 2018 by Sarah Gilman.

The death of *The Denver Post*

Colorado's paper of record is bleeding out



SCOTT D.W. SMITH

OPINION
BY JASON
BLEVINS

"O Justice, when expelled from other habitations, make this thy dwelling place."

As a bright-eyed kid with a ponytail and poorly trussed tie, I walked beneath that inscription every workday of my first decade at *The Denver Post*. Etched in stone at the newspaper's former downtown office, it imbued all who entered with a sense of purpose and privilege. The lofty hope it espoused, though, has withered under the watch of Heath Freeman, the pernicious hedge-fund owner who is murdering the paper.

Over 21 years, I weathered more than a dozen buyouts, as *The Denver Post* adjusted to the changing business of newspapering. When I was hired on as an intern chasing the ultimate gig in 1997, there were more than 300 journalists in the newsroom. Freeman's latest amputations — spurred by punitive greed after the paper missed its annual budget by a few percentage points this spring — have slashed that count even more, leaving about 35 reporters and photographers as the gasping "Voice of the Rocky Mountain Empire."

Freeman is the head of Alden Global Capital, the firm that bought the *Post*'s parent company, MediaNews Group, in 2010. Over the last few years, Freeman's vindictive hacking became too much for me. I could no longer reconcile my heart-and-soul labor with such an asshat owner. I bailed in April, and since then, the exodus has grown, as some of the very best journalists in Colorado flee Freeman's foul domain.

Every day, another log is tossed onto the conflagration of my rage. There's the photo of the expansion underway at Freeman's vacation manse in the Hamptons; the news that Alden Global has squeezed its stable of newspapers — more than 60 across the nation — with a slash-and-burn profit margin twice that of other major newspaper owners; the firing of the *Boulder Daily Camera*'s well-respected editorial page editor, Dave Krieger, for publishing an editorial critical of Freeman and his rapacious goons at Digital First Media (formerly MediaNews Group); the de-staffing of the *Cannabist*, an award-winning, first-of-its-kind website covering Colorado's grand experiment with marijuana; the resignation of *The Denver Post*'s editorial page editor, Chuck Plunkett, after Freeman's minions denied an editorial revealing that he shamefully squeezed \$36 million in profit from his 11 Colorado newspapers, an absurd 19 percent profit margin fueled by firings.

Last month, we learned that Dean Singleton, who owned *The Denver Post* for more than a quarter century, captaining the paper through both its heyday and toward its nadir, had stepped down as chairman of the paper's board. "To me, it's unbelievable that somebody would be so naive as to believe you can cut the heart out of a newspaper and still think it's going to survive," Singleton told *Westword*. "Because you can't. I have little hope that the *Post* has a lot of future. There's probably nobody you could talk to at the *Post* who wouldn't give you a similar opinion. It's sad. It's like watching your mother or father go

into hospice. This became a very good newspaper, and it became the heart of the state of Colorado, and they've cut the heart out of it."

It happened fast. In 2011, Alden Global hoovered up 50.1 percent of MediaNews Group's debt, as the company negotiated its way through bankruptcy. At the time, the national economy was in the tank. Newspapers were suffering, advertisers were slashing budgets and the internet was usurping print as the primary source of news. Alden Global corralled all its newspapers, which included *The Denver Post*, *The Salt Lake Tribune*, St. Paul's *Pioneer Press*, San Jose's *Mercury News*, L.A. *Daily News* and *The Orange County Register*, under Digital First Media. Digital First's charismatic chief executive, John Paton, initially inspired hope for these papers in the digital age, and we all doubled our efforts to transform the industry, reporting stories, writing them, shooting video and tailoring multimedia stories to online readers, all while enduring ever-tightening budgets.

We succeeded. Thrived even. Online readership soared. Subscriptions climbed. We harvested accolades, including a Pulitzer Prize and several Edward R. Murrow video awards. Then came the drastic cuts from Freeman. No one remembers seeing him ever visit *The Denver Post* newsroom, but he demanded an annual 20 percent profit margin. His draconian cuts started with equipment and forced us to decamp from our downtown building, with its Pulitzer awards and etched inscription, for a windowless corner of the printing plant in unincorporated Adams County. Then came the personnel cuts: Every year, a new round of layoffs, buyouts and soul-sucking send-offs.

We were duped. Freeman doesn't care about video. Or digital news. Or print news. Or news. He wants his newspapers to do one thing: Kick out cash. And it's working. Digital First Media papers are yielding him buckets of money: Last year, Alden reaped \$160 million from its newspapers, including \$28 million from *The Denver Post*, according to an independent report — dashing any hope that Freeman might leave before he's turned these papers into ash piles.

It's not just that journalists are out of jobs. It's that they are no longer able to tell the stories that we all need to hear. As the nation withdraws into echo chambers and filtered news, Freeman and his ilk are not just cutting budgets, they are severing the connections between us, the very stories that unite us. And that is something every citizen should fight to prevent. □

Jason Blevins has spent the past 21 years traversing Colorado's high country on skis, bikes, boats and Toyotas. A former Denver Post reporter, he continues to chase stories about rural communities, mountain industries and the rich assortment of Rocky Mountain leaders, athletes and characters who keep Colorado's remarkable frontier spirit alive. @jasonblevins

WEB EXTRA

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HEARD AROUND THE WEST | BY BETSY MARSTON

WASHINGTON

Nature photographer Kevin Ebi has captured bald eagles snatching food from crows, great blue herons and even other eagles, but he's never seen anything quite like what played out in the blue sky above San Juan Island National Historical Park. Ebi spent the afternoon watching eight young foxes romp on the prairie. One kit managed to snag a rabbit by the foot, though the rabbit pulled free and scurried to the safety of its burrow. Another got luckier, and Ebi photographed it prancing off proudly with a rabbit dangling from its mouth. Then the scream of a bald eagle cut through the air, and sure enough, a huge raptor swooped down and "lifted the young fox and rabbit into the sky." Eagles are strong — they can lift about half their body weight of five or six pounds — but Ebi says the double burden of a fox with a rabbit in its mouth must have been excessive, especially since the airborne fox kept fighting to hold on to its prey. Finally, the eagle transferred the rabbit to its right talon and released the fox, which dropped some 20 feet, setting off "a small dust cloud when it hit the ground." The fox trotted off unhurt, though another photographer on the scene, Zachary Hartje, thought it "looked scared" as it ducked into its den afterward. The air battle lasted less than 8 seconds. You can watch all this on Ebi's blog, *Living Wilderness*. For the record, reports the *Seattle Times*, when a predator steals another animal's prey, it's called "kleptoparasitism."

CALIFORNIA

Giovanni DeGarimore, the owner of Giovanni's Fish Market in Morro Bay, sells pink shrimp, local sole and crab, but you won't find octopus for sale at his place. DeGarimore, an avid scuba diver, once played hide-and-seek with an octopus in Fiji — "an experience I'll never forget," he said, he told Morro Bay Tourism — and he says the animals are among the most intelligent and feeling creatures on the planet. So when a local fisherman caught a giant 70-pound octopus in his crab net, DeGarimore spent a few hundred



WASHINGTON Food fight! KEVIN EBI

dollars to buy the animal. Naming it "Fred," he boarded the octopus at his fish market for a few days before releasing it back to the ocean — in a secure spot away from risks like sea lions. "It might not change the world," he said of Fred's release, "but if it makes me happy, and makes Fred happy, then it was worth it."

UTAH

The headline in *The Salt Lake Tribune* was "man bites police dog," but the kicker was even better: "Who got the rabies shot?" A man — who was clearly high on illegal substances — was arrested after he rammed his car head-on into a police vehicle and then refused to get out of the car. An officer shot him with a stun gun, but when that failed to move him, a police dog was brought onto the scene, whereupon the man bit the dog "as it was biting him." An officer and the dog were injured in the confrontation, but both will recover, said Detective Matt Roper. No word on those rabies shots, but it sounds like they were needed.

THE WEST

You could almost hear the Montana Democrat's frustration: Sen. John Tester could not believe

it when Interior Secretary Ryan Zinke, once Montana's sole congressman, proposed a paltry \$8.1 million budget for the Land and Water Conservation Fund, which is entitled by law to some \$900 million from off-shore oil leases. "Public lands is a Western thing," said Tester. "We've got to have an advocate in the administration — that's you. ... Whoa, come on, \$8.1 million? ... Are there no projects nationwide? Because these ecosystems are not going to be around in 20 years."

ARIZONA

Pet fish can be hazardous to your health. Six people from the Tucson area were hospitalized recently after their fish tank made them sick. The cause? Zoanthid corals on the bottom of the tank were releasing a toxin called palytoxin, reports *Tucson News Now*. The Centers for Disease Control and Prevention said the toxins are dangerous to humans, though apparently not to fish.

COLORADO

A man chased a moose onto the median of a busy highway in Frisco, Colorado, and then loitered dangerously close to the huge animal, which was clearly agitated, its ears back. A motorist stopped to take a photo and posted it on social media. The same day, a woman posted a video on Facebook of herself feeding a moose through her car window. This behavior is wildlife harassment and anything but safe for the people involved, according to Colorado Parks and Wildlife. But on the bright side, says Summit County wildlife manager Elissa Slezak, thanks to social media, wildlife harassers can be warned and ticketed, and perhaps, at the very least, educated.

WEB EXTRA For more from Heard around the West, see hcn.org.

Tips and photos of Western oddities are appreciated and often shared in this column. Write betsym@hcn.org or tag photos #heardaroundthewest on Instagram.



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“Denial — carefully looking the other way — is a normal response to challenges this overwhelming. But unlike many of us, the young people I’ve met who are preparing for environmental careers are choosing not to look away.”

Jennifer Atkinson, in her essay, "Addressing climate grief makes you a badass, not a snowflake," from *Writers on the Range*, hcn.org/wotr