

High Country News

An aerial photograph of a vast, arid desert landscape. The ground is covered with numerous circular pits, likely remnants of military training exercises. A winding road or path cuts through the terrain, and distant mountains are visible on the horizon under a clear sky.

Extreme heat and
incarceration

Kim Stanley Robinson's
High Sierra

Return of the condor
to Yurok skies

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A LEGACY
OF WEAPONS
AND WAR

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The water level at Lake Powell continues to drop and could soon threaten the electricity-generating turbines of Glen Canyon Dam, seen in the distance. **Luna Anna Archey / HCN**

Know the West.

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Going to extremes

IN THE MIDST OF A RECENT HEAT WAVE during which temperatures in New Delhi soared above 110 degrees Fahrenheit for several days, India passed an emergency law to facilitate restarting idle coal-fired power plants to meet spiking energy demand. Blackouts inhibited the use of fans and other cooling devices that help protect people from heat-related illnesses and deaths. At least 25 people had died in India, and more than 65 in neighboring Pakistan. Extreme times call for extreme measures, and the irony of having to burn more coal to protect the populace from extreme heat did not go unnoticed.

One year ago, a record-breaking heat wave in the Pacific Northwest also sent temperatures above 110 degrees for several days, killing nearly 200 people in Oregon and Washington. During this heat event, which the National Oceanic and Atmospheric Administration called “astounding,” incarcerated people in prisons run by the Washington State Department of Corrections suffered unbearably hot conditions from which they could not escape, left to scorch inside their cells. *(See story on Page 24.)* Extreme heat will increasingly become the norm, scientists say, inescapable for most, and so we must find ways to protect people from deadly heat stroke, heart attacks and other conditions exacerbated by heat *without burning more fossil fuels*. And we must see to it that such heat relief is distributed equitably. This means expanding climate justice activity while accelerating efforts to design and build renewable energy projects. We must be strategic about the placement of those projects, too, so that they will generate the maximum amount of power while doing the least amount of harm. This will likely require a mixture of public and private land — and some sacrifices, to be sure.

We needed a Green New Deal many years ago, but now would be better than never. And we need congresspeople and other leaders with the guts to take the actions necessary to protect their constituents from situations like last summer’s heat wave in the Northwest. Even if you are convinced that we’ll have another ice age eventually, this would still be a good investment, for if it comes to pass, we’ll face a very intense need to find enough energy to keep ourselves warm. If future speculation is your thing, you might enjoy the conversation with Kim Stanley Robinson on Page 42, about experiencing landscapes in the present with a mind toward possible futures. It’s something we need to get much better at in order to combat the climate crisis.

If we can’t think forward and imagine heat waves like the one in India happening more frequently and more intensely, we are going to miss the opportunity to preserve a livable environment here on planet Earth. And no matter what your politics, or how you feel about the way different energy sources might compromise certain species and certain landscapes, the prospect of the planet no longer being habitable for humans should give you pause. It won’t be the end of life on Earth. But it’s going to mean a lot of hardship and sacrifice of life — of people and species here in the West, and others halfway around the world.

Jennifer Sahn, editor-in-chief

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Emmet Gowin and *The Nevada Test Site*.

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Subsidence craters and the Yucca Fault, looking north on Yucca Flat, Nevada Test Site, 1996. 37°5'56.71" N, 116°2'49.60" W (above).

Emmet Gowin / Courtesy of the artist and Pace Gallery

A condor, *preygoneesh* to the Yurok Tribe, at the tribe's condor holding facility, before it and three other juveniles were released into the wild (*right*).

Paul Robert Wolf Wilson / HCN

ON THE COVER

View from the center of Yucca Flat, looking south, Areas 9, 7 and 3, Nevada Test Site, 1996. 37°3'10.83" N, 116°0'46.99" W.

Emmet Gowin, from his book *The Nevada Test Site*. Courtesy of the artist and Pace Gallery

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LETTERS

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

BREATHLESS

May 2022! The artwork in this issue took my breath away, from Tony Abeyta's images, which accompanied Brian Oaster's "The Power in a Name," to Richard Misrach's positive-to-negative photography ("Seeing Differently"). These are truly a step beyond obligatory illustrative photography to break up long segments of text.

Linda Paul
Boise, Idaho

LA'S LION

It is so seldom that I read articles of hope and planning for wildlife. Having grown up very close to Griffith Park, I was delighted to read of wildlife still somehow surviving in L.A. ("The Lion King of Los Angeles," May 2022). The plan for the wild animal overpass was a dream I had as a child! I believe that "education breeds conservation," and great joy can be found in supporting programs to save wildlife.

Nancy L. Isenburg
McMinnville, Oregon

What a well-written and inspiring account of Miguel Ordeñana's adventure to save wildlife. Thanks to Ruxandra Guidi, Miguel and his co-workers, and — of course — P-22. Wildlife crossings are one great effort for humans to provide nature a fighting chance in our growing world.

Gene Dinkel
Omaha, Nebraska

*"By no means
do I think current
rangeland health is
acceptable,
but accountability
is better than
blame."*

I have a totally different take on "lions." They can kill and make you very, very unhappy. I came to this beautiful county 40-plus years ago. I started raising llamas, and that went well for a few years until one of these cats killed one of them.

We stock owners try to protect our stock from predation with wire and electric fences and night lights and all, but you just can't cover all bases! I see the policy's changes due to articles such as this one's misplaced attitude. You need to capture the cat and take it to a more robust environment before it damages someone or something. It is totally misplaced to spend millions for this. \$87 million! That's crazy! You guys living in the damned cities with your romanticized ideas of wildlife affect those not living there.

While you may think that it's charming to have these cats

among us, it is beyond belief that you'd spend those millions of state dollars just so they'd have access to their "natural environment." It ain't natural!

Ron Hennig
Mount Shasta, California

FUND THE BLM

The article "54 million 'failing' acres" (May 2022) could have more forcefully and earlier on emphasized that the Bureau of Land Management faces an impossible task. The BLM is charged with balancing political demand for continuing grazing leases with caring for land that is being ravaged by a rapidly changing climate. While not intentional, I'm worried the derision of BLM practices in the first half of the article unwittingly plays right into the hands of land-transfer proponents. Mismanagement of "failing federal lands" is used by organizations (e.g., ALEC) and politicians (e.g., Utah's Republican legislative caucus) to advocate for the transfer of federal lands to the state. To be clear, there is no evidence that state governments would be able to better manage our nation's rangelands than the federal government.

By no means do I think current rangeland health is acceptable, but accountability is better than blame. Empowering (and funding) the BLM to take bold actions necessary to care for our rangelands is our best shot for nurturing the health and productivity of public lands for generations to come.

Zoe Nemerever
Salt Lake City, Utah

SHERIFF OF HYPOCRISIES

Theo Whitcomb's article ("The rise of the nature cop," May 2022) does a good job of laying out some of the dynamics of the current situation in Siskiyou County, but although xenophobia is definitely part of the equation, geography is also important. The sheriff's office is in Yreka, an easy half-hour drive from the Shasta Valley.

It's a lot easier to cruise out on the nice flat paved road than to brave a two-hour drive down the Klamath River, or the precipitous drop-offs of the Scott or Salmon River roads. There are plenty of cannabis growers in those woods, too. The sheriff's office has figured out that focusing on an adversary both nearby and different from the majority of constituents is the way to increased budgets.

Water and pesticides and sanitation are real concerns that could be sensibly dealt with if the county's power structure had decided to regulate, rather than forbid, cultivation of cannabis as a commercial crop. But having foregone that option, they have no Plan B, only a foolish attempt to squirm out of their own trap by descending into ever-pettier persecutions and hypocrisies, such as telling an alfalfa farmer that he can't sell his own water to his thirsty neighbors.

Louise Wagenknecht
Salmon, Idaho

YELLOWSTONE & OUR HISTORY

I'm a retired teacher and can remember teaching American history to my fourth-graders, so Liza Black's article struck a chord with me ("We don't share land here," May 2022). White America has shaped the perception of both Native Americans and Blacks in this country's media. Both groups have been marginalized and vilified.

We must not forget that history can be told from more than one perspective. America only embraces the European perspective. That creates a false narrative and perpetuates the idea of "virtue and supremacy" in America. All of us played a role in making this country what it is. Unfortunately, the ugly truth of displacement, enslavement and greed is hidden behind our symbols of justice and freedom.

Sandra Davie
St. Louis, Missouri

Condor time

After a century, the Western Hemisphere's largest land-based bird is coming home to Yurok's redwood skies.

BY BRIAN OASTER | PHOTOS BY PAUL ROBERT WOLF WILSON



A DEAD SEAL washes ashore in Northern California. Ravens and turkey vultures peck at its eyes and tail end, but they're not strong enough to break into the blubbery carcass. For that they'd need the help of the Western Hemisphere's largest land-based bird: the condor. With feathers as long as your femur and the body weight of a human preschooler, a condor can hold down a big carcass and rip into it

with the torque of its meat hook-shaped beak. It may seem macabre from a Western perspective, but condors clean up with an efficiency other animals — including humans — cannot match. It's one reason the Yurok Tribe has spent over a decade working to bring them home.

To the Yurok people, the California condor, whose Yurok name is *preygoneesh*, embodies the spirit of renewal. It heads the scavenger sanitation crew: When *preygoneesh* eats, so does everybody. But *preygoneesh* has been absent from this beach for over a century. The ravens and vultures have to look elsewhere for a meal. The seal carcass bloats in the sun, wasted.

Preygoneesh's decline accompanied Americans' push Westward in the mid-1800s, a manifest casualty of the usual suspects: habitat destruction, novelty hunting by collectors and killings out of misplaced fear. *Preygoneesh* once ranged from what's now called Mexico to British Columbia, from the Pacific to New York. The birds can travel 100-200 miles per day on 9.5-foot wingspans that can take them to 15,000 feet (2.8 miles), even higher than eagles. But by the 1980s, only 22 were left, their range diminished like a reservation to a sliver of skies over central and Southern California. Because they declined so early, Western scientists were never able to study healthy condor populations in the wild. What their thriving looks like is a mystery.

Except to Indigenous communities like the Yurok.

ON AN UNUSUALLY wintry day in late March, snowflakes piled on redwood boughs, fluffy and silent one hour, slushy and dumpy the next. But Yurok Wildlife Department Director Tiana Williams was confident the tribe's

Each condor will receive a Yurok name based on its personality or behavior, Tiana Williams said. For now, they have alphanumeric codes.

four adolescent condors could handle the weather. They'd just arrived from the Ventana Wildlife Society in Monterey, which held them while the tribe finished constructing its own condor pen.

Tribal Chair Joseph L. James spoke to the press while snare hits of slush plopped on the overhead canopy. "It is a historical moment in the Yurok Tribe, as we introduce our condors back home to fly back above the

sky, providing that balance for us," he said. Vice Chair Frankie Myers followed, saying it took generations of work, and fulfills the dream of Yurok grandparents. "This is how government is supposed to represent its people," Myers said.

Standing alongside tribal leadership were Redwood National Park Superintendent Steven Mietz and Victor Bjelajac, superintendent of California State

Parks' North Coast Redwoods District, representatives of the tribe's original condor restoration partners. Numerous other agencies joined later, including the U.S. Fish and Wildlife Service, which sent staff out to help build the tribe's condor facility.

The historic day arrived with the help of some unlikely partners, too. PG&E, the power company whose equipment started the Dixie Fire last summer, donated \$200,000 to the Yurok condor restoration program. Pacific Power, whose parent company owns the Klamath River dams the Yurok have been fighting to remove, is also involved. Then there are local dairy farmers who donate stillborn calves to feed the fledglings. The tribe even approached timber companies, although, according to Mietz, logging and other industries

have damaged two-thirds of Redwood National and State Parks, part of the Yurok's ancestral homelands.

"As we heal this landscape and we bring back the condors, and we start to restore the previous majestic glory of the redwood forest, we're also healing the relationship with each other, and repairing our relationship with the original Indigenous people," said Mietz. "We're following their lead in how to manage the park, to restore this very damaged landscape."

The tribe and its partners built the holding pen from shipping containers, in part because they're fireproof. (In 2020, a California wildfire killed 12 condors.) The facility is tucked away in a discreet location and surrounded by electrified fencing. This protects

"This is how government is supposed to represent its people."



preygoneesh not just from roaming predators, but from a well-meaning public, said biologist Chris West, the tribe's lead condor program manager, flashing a still-red finger wound where a feisty fledgling took a chunk just days before.

A mentor bird — an 8-year-old adult condor, distinguishable by its bald red head — mingled with the adolescents. “If you just threw a bunch of teenagers into an area and expected them to behave themselves, at some point you might want to throw an elder in there to straighten them out a little bit,” West explained. “That’s kind of what’s going on with our mentor bird.”

Condors are social animals, with a literal pecking order that includes other, smaller scavengers. In the wild, a condor’s parents follow it around to teach it; here, the mentor plays that role. Bait outside the pen attracts turkey vultures and ravens, allowing the condors to get used to the animals they’ll dine with in the wild.

The adolescents, a female and three males, are 2 to 3 years old. Some hatched at the Oregon Zoo, others at the World Center for Birds of Prey in Boise. And after their stay in Monterey, they needed to acclimate to Yurok country and socialize for a few weeks before release. There was no rush, said West. “We’re on condor time.”

Adult condors reproduce slowly, laying just one egg every two years. And they face one extremely lethal adversary. Lead poisoning from ammunition, which contributed to preygoneesh’s decline, remains their number-one killer, accounting for half of all known wild condor mortalities. A piece of lead the size of a pinhead can paralyze preygoneesh’s powerful gastrointestinal system, causing an agonizing death. “There’s some indication that if we were able to get

rid of the lead problem,” Williams said, “that we could potentially stop managing condors.”

California banned lead ammo in 2019. Nevertheless, 13 condors died in the wild last year from lead poisoning. The tribe reached out to hunters with information about alternatives, like copper ammunition. “Anywhere from 85%-95% of hunters we talked to came to our events, saying, ‘I had no idea, and of course I’ll make the switch to non-lead,’” Williams said. “I’m not surprised by that, being a hunter myself, coming from a hunting family.”

Hunters, like dairy farmers, utility operators, loggers, and park superintendents, all seem to want preygoneesh to succeed. Yet it’s the Yurok’s leadership that has brought these unexpected allies together in the name of renewal.

According to Williams, the Yurok people’s fundamental reason for being is to keep the world renewed and in balance. She said preygoneesh is a critical part of the Yurok’s 10-day Jump Dance, a world-renewal ceremony that uses preygoneesh feathers and songs. Every other year, before the ninth full moon, participants fast and pray, dance and sweat. “We pray for our river, we pray for our streams, we pray for our salmon,” Chair James told *HCN*. “We pray for our condor to come home.”

On a morning in early May, the Yurok’s livestream showed two of the fledglings hopping to the edge of the release door and taking wing past a bait carcass. They’ll build their mental map around this location as a key place to return to for food and socializing.

The tribe won’t stop with these four birds: A new cohort arrives later this year, and West hopes to release four to six birds every year for the next 20 years, 80 to 120 birds from this site altogether.

“Our prayers are answered. They’re coming home now,” James said with a smile. “It’d be icing on the cake, being able to dance and have a condor fly over us. It’ll happen.” ☀

POEM

poem after a poem by césar vallejo w/ a nod to donald justice

By Jay Hopler

i will die in the desert on a sunny day
b/c i was born in the islands
on a rainy one
i will die in the desert this cannot be helped
maybe on a friday as today is a friday at the beginning of
a cold spring

it will be a friday b/c today friday stoned & alone i drove
into the west desert & grieved
my own passing & never so much as today do i feel
in the middle of a 2-lane road
empty for 1,000 years in both
directions

jay hopler is dead his life was as easy as it got
& he had the scars to prove it
these are the witnesses: all the fridays & the rains & the sun
& the road & every grain of sand
in that desert

The condors wait out the snow at the Yurok Tribe's condor holding facility, acclimating to the land of their ancestors.

WEB EXTRA Listen to Jay Hopler recite his poem at hcne.ws/poem-after-poem



REPORTAGE

Tellurium in the Klamath Mountains?

Some believe the area is full of untapped potential to develop the rare metal.

BY THEO WHITCOMB

WHEN INTERSTATE 5 was built in the 1960s, it sliced through southwest Oregon's Klamath Mountains, exposing their metamorphic innards. To Michael Cope, the brawny founder of American Mineral Research, this layer cake of mineralized rock proves that Josephine County is sitting on cache of valuable rare metals — and his small company hopes to eventually free up the resource so that it can be used in solar panels.



Dusk falls over Grants Pass, Oregon.
Andrew Cullen

area is mineralized and a possible site not just for gold, but for tellurium, a valuable rare-earth metal increasingly useful as a semiconductor material in the solar and battery industry. It's a metal that is now included on the Department of the Interior's "critical minerals" list.

Cope interrupted his own monologues with excited outbursts whenever he found an interesting rock. He was able to read the geology in a way I could not. A few rocks at his feet were serpentine green. "This is what you're looking for right there," he said. "It's the blues, the dense rock. What your feet are on ... all of this is what we looked for on road cuts and (Bureau of Land Management) roads." He cracked open colorful rocks one by one with a small hammer and smelled them for sulfur. After scrutinizing the insides with a small magnifying glass, he pointed out tiny flecks of metal, shimmering in the sun. "Fool's gold," he guessed.

Cope has found tellurium on AMR's properties, confirmed by lab tests he shared with me. And he and his partner, Jay Meredith, an investor and the former city accountant for Grants Pass, Oregon, recently got a permit to look for rare metals on a county-owned parcel near the towns of Placer and Golden.

But despite the glimmer of possibility, AMR's quest could prove quixotic: Mining in the area is nearly nonexistent, smothered by global competition and an expensive regulatory environment. Cope still holds out hope for these knotted, colorful rocks; he's fixated on the unique geology of the Klamath Mountains and the hidden riches it may hold. "It's just sitting here waiting for people to take advantage," Cope told me, looking out at the forested hills sprawling southwest toward Grants Pass. "We're the State of Jefferson. The way I look at it — we could be the wealthiest state ever."

FOR RURAL TOWNS like Grants Pass, extractive industries paid the bills during the 20th century. Timber provided a large share of the county budget; by the 1990s, it accounted for well over 40% of the funding, underwriting roads, schools and law enforcement. But once the industry was automated and consolidated, everything changed; the number of sawmill workers in Oregon fell from 25,500 in 1969 to 18,500 in 1989.

By the mid-'90s, then-President Bill Clinton's Northwest Forest Plan curtailed public-lands logging, and Josephine County's budget was gutted. "Timber payments ... created a really hard situation for local governments in Oregon specifically," said Kris Smith, a researcher at Headwaters Economics, an independent research group. The area was "stuck in a downward spiral of not having enough money to pay for your everyday needs in local government," Smith said.

Since then, Josephine County has had to remake its economy. Visitors raft down wild and scenic rivers, patronize local vineyards and restaurants or buy weed from cannabis farms. But now, wildfires, heat waves and smoke threaten the tourist season. Grants Pass, for instance, was ranked fifth in the nation for poor air quality this year, largely due to wildfires. And the area's socioeconomic problems are chronic: The median income and educational attainment consistently lag behind state averages, and the industries that have replaced timber — including health care and tourism — are generally either low-wage or seasonal, or both. The county mirrors a nationwide trend, with the fastest growing sector being the health-care industry, which accounts for 18% of jobs. Retail comes in second at 13%. Lack of housing in its biggest city is also acute: The rental vacancy in Grants Pass is below 1%, and Kelly Wessels, the former director of the United Community Action Network, estimated that the percentage of fast-food workers living without

shelter was roughly 25% in 2020.

When I spoke with Josephine County Commissioner Dan DeYoung this spring, he had a long list of grievances, including the environmental regulations he sees as hampering his county's ability to extract resources. As a member of the county's mining advisory, he has fought them at every turn, complaining that the resources have been "locked up." But he's also skeptical that a company like American Mineral Research can launch a new era of extractive wealth there. "I don't know of any private company that could ever pull it off," he said. "Not in today's environment."

Still, new-energy metals could be a possible way out of the economic purgatory DeYoung describes. He aided AMR by weaving a statement from Cope and Meredith into a testimony before the U.S. House Natural Resources Committee. For years, they'd tried to attract the federal government's attention, even suggesting at one point that the Trump administration christen the area the "Trump Mineral Belt."

New extractive frontiers may indeed open up as the Biden administration attempts to transition the nation away from fossil fuels. The administration slipped \$500 million into a military spending request to "expand domestic production of critical minerals" to secure energy and mineral supplies.

The Klamath Mountains are known to hold useful metals like cobalt, nickel and bismuth, but geologists still see the development of tellurium as a long shot. The rare metal is produced cheaply in China and Texas as a byproduct of copper smelting. But AMR hasn't stopped trying. The company says it has a plan to mine tellurium alongside gold, noting the long-term growing demand for rare metals. When I asked Meredith if he thought tellurium development could cure the county's budget woes, he was emphatic. "Absolutely," he said. "That's where big, big dollars could be available in the long term." ☀

In early May, I met Cope on the shoulder of an I-5 off-ramp. The rain was sporadic, and we hurried across the road so that he could show me where he'd found gold a few years back. Neither of us had rain jackets, and when it began to hail, Cope looked up and asked God to stop the downpour. It stopped minutes later, and I laughed as the spring sun came out, highlighting rusty ochre and deep maroon rocks. Some had a navy-blue tinge, others a slight purple — a sign that the

REPORTAGE

Powell's looming power problem

Drought and demand threaten a critical component of the Western Grid.

BY JONATHAN THOMPSON | PHOTOS BY LUNA ANNA ARCHEY





Glen Canyon Dam's intake points for the water to power the plant's eight turbines will be above the water line — the minimum power pool — if the lake level drops another 33 feet. If that happens, the plant will not be able to generate power, though it would need to be maintained in case the water level rises in the future.

Electrician Ray Dugi bikes into the dam's machine shop; employees use bike toolboxes to get around the huge power plant. Dugi has worked at the dam for 25 years (*below*).

Adrian Kelly, a power plant mechanic, stands for a portrait after welding a water pipe that will be used to cool the dam's new power transformers (*right*).

Arlo Ketchum, a power plant electrician, works on the PMG (permanent magnet generator) from one of the turbines. The PMG is the "brain" of the machine, communicating with the other turbine components. Much of the plant's technology is unchanged since it was built in 1964, so replacement parts can be hard to find and must often be refurbished or replicated by staff (*bottom*).



THIRTY-NINE YEARS AGO, due to record-breaking snowfall in the Upper Colorado River Basin, Lake Powell rose substantially, catching river managers off-guard. By late June, the reservoir was nearly overflowing, forcing operators, for the first time ever, to rely on the dam's spillways. Instead of giving relief, that precipitated a new crisis. A phenomenon called cavitation — a process where water and pressure carve huge caverns inside of the dam — sent shock waves through the spillways' innards, tearing through the concrete and then the sandstone, putting the colossal Glen Canyon Dam in peril.

The spillways were repaired, and the dam survived. But now it is threatened yet again, only this time for the opposite reason. In March, Lake Powell's surface level dropped to within 33 feet of the minimum needed to generate hydropower, for the first time since it was filled in the 1960s. If — or when — it hits that critical point, the Southwest power grid will lose one of its biggest electricity generators, as well as an indispensable backup power source. And that might cause a crisis similar to the 1983 spillway incident.

When the reservoir is full, Glen Canyon Dam's eight giant turbines have 1,300 megawatts of capacity, equivalent to the output of a large coal power plant. The dam serves as a "base-load" power source, cranking out a steady stream of juice, which the federal Western Area Power Administration (WAPA) sells at below-market prices to Southwestern utilities, tribal nations and municipalities. It is also valuable as a "load-following" resource, meaning operators can ramp output up quickly to meet a spike in demand or a sudden loss of supply elsewhere, contributing to grid resilience and helping to compensate for fluctuations in wind and solar generation. Glen Canyon Dam was originally constructed primarily to store water during wet times and then release it during dry periods. It also provides flood control, acts as a silt catchment basin for Lake Mead, and serves as a watercraft playground, drawing as many as 4.5 million visitors per year. Over the years, though, it has also played a crucial role as a power source, with its hydropower meeting rising energy demands of the growing Southwest.

Over the last two decades, climate change-induced drought has depleted Lake Powell substantially: It is now less than one-fourth full. As water levels drop, so, too, does the potential energy of the falling water. That, in turn, lowers the turbines' generating capacity and power output. In the 1990s, the dam produced as much as 7,000 gigawatt hours per year, enough to power nearly 600,000 homes. Last year, it was down to just 3,000 gigawatt hours.

This chronic decline in generating capacity is about to become more acute. As the reservoir

approaches the 3,490-foot minimum power pool, air could get entrained in the turbine-feeding penstocks, wreaking all kinds of havoc. At that point, operators will have no choice but to stop sending water through the turbines, killing power generation and depriving the grid of enough electricity to power about a quarter of a million Arizona homes annually. It would also drain up to \$200 million annually from dam electricity sales, a chunk of which goes to fund endangered species recovery, salinity control and water studies on the Colorado River.

That would force WAPA to purchase more expensive power, including electricity generated from natural gas or even coal, to supply its millions of customers. The average utility customer might not even notice the dollar or two this adds to their monthly bill, but it could amount to a substantial price hike for the tribal nations that rely on WAPA for most or all of their power. The Navajo Tribal Utility Authority's yearly power bill could jump by as much as \$1.3 million, according to a 2016 consultant's study, and nine other tribes would also see significant cost increases.

Equally worrisome is how grid operators will fill the generation void left when the dam goes offline. New wind and solar power, paired with batteries or other energy storage, can replace some or all of the baseload power. But as big coal and

nuclear plants retire in the next few years, other forms of energy generation will need to expand.

Over the last few months, federal officials have attempted to stave off the power plant's obsolescence by increasing releases from upstream dams and by sending less water downstream. That did not reverse the decline, but it did give them more time to weigh their options. Now officials are considering reducing releases from Lake Powell for the rest of the year, which would further diminish Lake Mead and could increase cutbacks for downstream users. In the meantime, they are looking into modifications that would allow hydroelectricity generation to continue below minimum power pool.

That approach brings its own challenges, however, since the tubes have only been used for short stints and were never intended for long-term use. No one knows what will happen if they become the only release valve for the reservoir's water. Running the dam as a hydropower site at such low levels raises a lot of "operational uncertainties," Tanya Trujillo, the Interior Department's assistant secretary for water and science, told attendees at a seminar last year. She even harkened back to the 1983 spillway tunnel deterioration and the resulting near-disaster. "The engineers use words like cavitation," she said ominously, "and that gets my attention." ☀

Gus Levy, plant facility manager, walks past hydropower turbines. Due to the low water level, only five of the eight turbines operate on a daily basis, though all eight must be kept in working order.



Climate in the courts

Rocky Mountain teens sue over fossil fuel-friendly policies.

BY KYLIE MOHR



IN MONTANA, WILDFIRES are destroying ranchland, drought is killing fish, and heat is harming traditional tribal food sources like huckleberries. To the south, Utahns are inhaling a toxic concoction of tailpipe and smokestack emissions, made worse by wildfire smoke. And young Westerners say these states are infringing on their rights by boosting fossil fuel development and causing the changes in the climate that accelerate these problems.

The West is a hotspot for lawsuits arguing that climate change-inducing policies are at odds with state constitutions: Three out of five pending state climate cases brought by young plaintiffs originated in the Western U.S. In March, several young Utahns filed a complaint in Utah's 3rd Judicial Court, declaring that dangerous air quality and climate change are harming their health and safety, interfering with their development and shortening their life expectancy. A similar case in Montana made news earlier this year, when a court date was set for February 2023. This is a new wave of narrowly tailored youth climate cases that could, unlike earlier cases, lead to some legal wins.

Held v. Montana marks the first time in U.S. history that a youth-led climate change lawsuit will go to trial, and *Natalie R. v. State of Utah* could follow suit. Both cases face a legal system that has for years stymied and punted on similar cases, including their best-known predecessor, the federal case *Juliana v. United States*, along with state litigation from Alaska to California. "I think that everyone just has to keep trying different approaches to see what ultimately will be the thing that courts can latch onto," said Jennifer Rushlow, associate dean for environmental programs at Vermont Law School.

In *Juliana*, youth plaintiffs — the vast

majority of them Westerners — wanted the court to order the federal government to adopt a plan to decrease greenhouse gas emissions. But the 9th Circuit Court of Appeals dismissed the case in 2020, writing that the request was outside its authority and that climate policies must come from the legislative and executive branches, not the judiciary.

So lawyers for the Utah and Montana plaintiffs are now taking a narrower approach, asking for what's called "declaratory relief," or court rulings declaring that the state's policies violate the rights of those bringing the cases. (*Juliana* plaintiffs are now taking the same approach in an amended complaint pending in Oregon U.S. District Court.) A victory would mean that state governments in Montana and Utah couldn't legally continue specific policies that maximize, promote and authorize fossil fuel development. The Montana case also contends that the states must take action on climate change due to the public trust doctrine, a legal concept that says natural resources should be held in trust by governments and managed for the benefit of both current and future citizens.

The lawyers for the two lawsuits are also tailoring their arguments to fit differing legal landscapes. Attorneys representing the plaintiffs in *Held v. Montana* argue that two Montana fossil fuel-friendly policies violate the right to "a clean and healthful environment." Montana is one of six states — and the only one in the West — with constitutionally based environmental rights protections. "Courts in Montana have interpreted the right to a clean and healthful environment to be really important and meaningful, and have shown a willingness to invalidate statutes and agency conduct when it violates that right," said Nate Bellinger, senior

High school students walk out of school to demonstrate at the Utah Capitol in 2019. **Natalie Behring**

staff attorney at Our Children's Trust, an Oregon nonprofit law firm that solely represents youth plaintiffs in climate cases. Experts agree that explicit constitutional language could help youth climate cases win. "It certainly is possible that the existence of a constitutional right will give an individual judge some greater comfort in making a bold decision," said Michael Burger, the executive director for the Sabin Center for Climate Change Law at Columbia Law School.

Utah's Constitution lacks explicit language on the right to a clean environment. So the young plaintiffs in *Natalie R. v. State of Utah* argue that five Utah policies bolstering fossil fuels create conditions that violate their right to life, health and safety per the state constitution — and they're leading the fight because younger generations will bear the brunt of climate impacts. While the Montana case covers a litany of climate concerns, the Utah case focuses on air pollution. "We know that Utah's dangerous air quality is taking years off of the lives of its citizens, particularly children," said Andrew Welle, a senior staff attorney on the case from Our Children's Trust. "So we've drawn a direct line to say, 'This is a pretty clear-cut violation of the right to life.'"

Federal litigation and nationwide climate action may stall, but state cases like these could bring piecemeal progress. And that adds up. "Even though climate change is a global problem and we need global coordination and federal leadership, ultimately, a lot of action is driven at the state level," Burger said. "There are important, critical gains to be made in advocating for and achieving more ambitious state climate action." 🌱

The Navajo Nation's first economist has a fresh view on development

Alisha Murphy discusses her vision of a robust tribal economy and the importance of community input.

BY MIACEL SPOTTED ELK

ALISHA MURPHY, WHO IS DINÉ, has always had a story to tell. It just happens to come in the form of economic data and its details. In November 2021, Murphy assumed her post as the Navajo Nation's first-ever full-time economist. Her appointment comes at a time of great transition, both for the Navajo Nation and for Indian Country as a whole. Murphy has spent her first half-year in the Navajo Nation's Division of Economic Development focused on how best to assist the tribe as it transitions away from a coal-centered economy. She is also currently pursuing a doctorate in economic development at New Mexico State University.

HCN recently caught up with Murphy as she was settling into her new role.

This interview has been edited for length and clarity.

What led you to study economics?

I started as an undergrad in the social work field. I received my bachelor's in social work and then my master's in social work at Washington University in St. Louis. It was my last semester where I took social-economic development. And the professor was just so passionate about using data to tell the story of the inner city — and that turned the light bulb on in my brain. My first question was: How can I use data to tell the story of the Navajo of my community? And is that possible? Has it been done before?

What other questions do you have that you're still working on answering?

Right now, the most prominent question is: Will a data (collection agency) for the Navajo Nation help with the efficiency of economic

development? A lot of times, we have to resource our information from third parties like the U.S. Census, BLS (Bureau of Labor Statistics), VA (Veterans Affairs). However, I do question how accurate those data sources are when we're talking about the very rural communities on Navajo or any other tribal nation. So, the data center — can we do that? And will it help the communities that we're serving? That's the biggest question I have right now.

Why is data sovereignty important for tribes?

It would help in a number of ways. And it's important to think about because the Navajo Nation and other tribal or Indigenous communities are not fitting the mold for which a lot of non-Native communities are measured by. They operate in a different legal status, different health care, a different definition of business success. It's just completely different measuring sticks. This notion of "How do we quantify and measure our performances that match with the values of what Navajo communities really take to heart?" is not about getting rich and making the revenue report. Providing the basic goods and services that our communities need is the best definition of success. I think data sovereignty is going to have to be in the conversation.

Could you take a moment to address the economic situation in the Navajo Nation as the nation moves away from a coal-centered economy?

When NGS (the Navajo Generating Station) shut down, there are some assets that the Navajo Nation has acquired coming from that facility. And how do we turn that location, (those) materials, into an opportunity for growth? I am impressed by the communities surrounding that area — that they're looking for creative ways to approach that. That's how it should be. It should start with what the community needs and wants, and how to make sure that the communities benefit from the work that's happening there. It should always start at the community, and I think that's what they've been doing.

What responsibility do you think you have, not only to your tribe but to the community?

I feel my responsibilities are to tell the story of our community and all the ways we celebrate the successes that our tribe has as a whole in terms of increased numbers in tribal enrollment and increased success of educational attainment. I grew up here in Crownpoint, New Mexico, and I remember my grandparents talking about chapter meetings. To take what my grandparents started, their interests and their passion for serving their community — I'm happy to do that, too. 🌻

"How do we quantify and measure our performances that match with the values of what Navajo communities really take to heart?"



Alisha Murphy, Navajo Nation economist.
Andi Murphy



FACTS & FIGURES

Wildlife welfare check

What's happening with species around the West.

BY JONATHAN THOMPSON

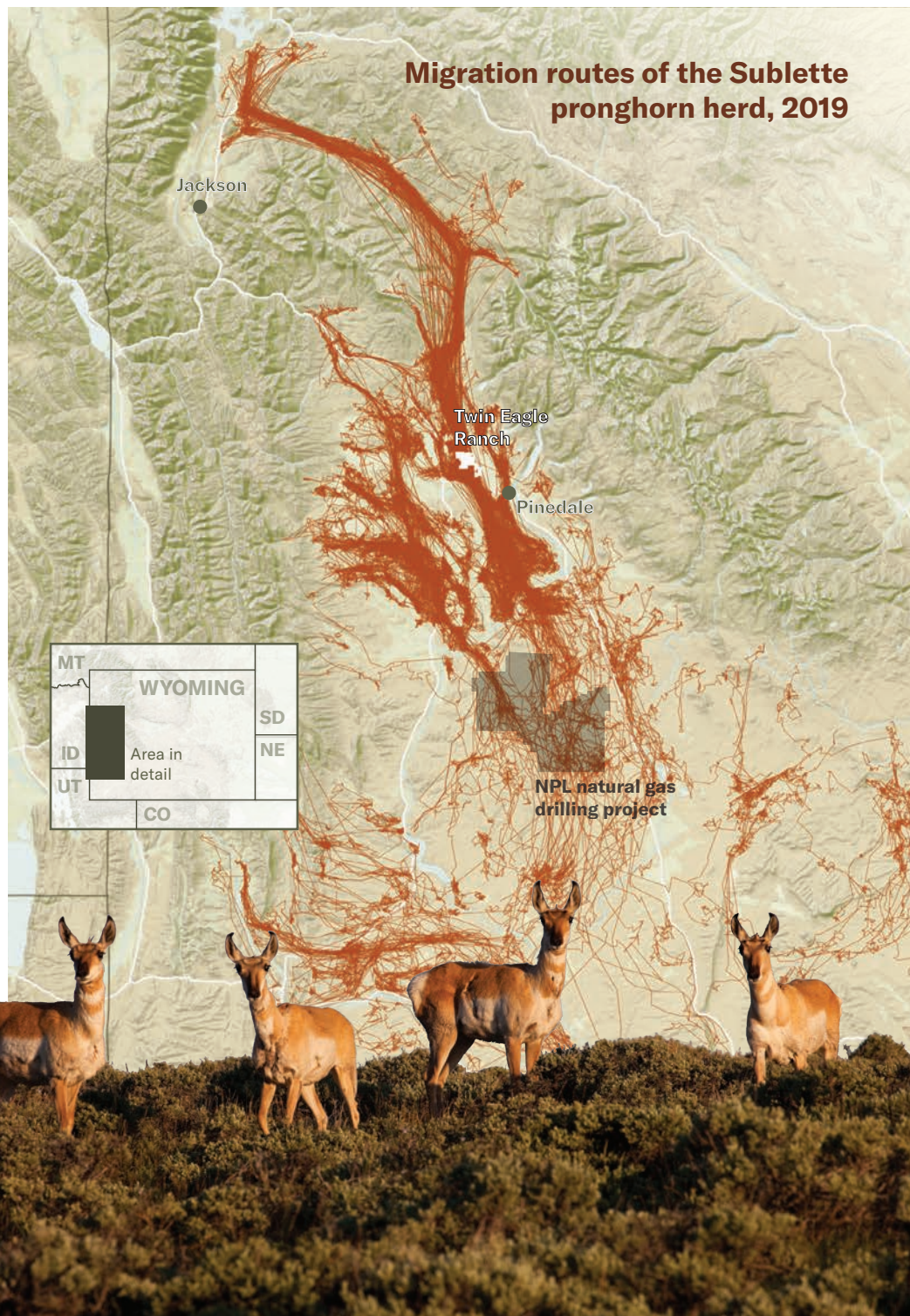
ON APRIL 7, Interior Secretary Deb Haaland announced that her department would “advance its work on wildlife corridors” by focusing on “conservation and restoration of wildlife corridors and habitat connectivity in a way that supports conservation outcomes.”

The federal initiative includes \$2.5 million in grants for seven states and three tribal nations to fund 13 projects, from increasing climate-resilient habitat for big game on a New Mexico ranch owned by the Pueblo of Sandia, to doing post-fire restoration work in California. There's also \$250,000 to establish a conservation easement on the Twin Eagle Ranch in western Wyoming to avert potential residential development and protect the so-called Path of the

Pronghorn, which runs through the area.

The Path of the Pronghorn is a 6,000-year-old, 150-mile-long migration corridor in northwest Wyoming that the iconic ungulates follow north every spring to higher grazing ground in the Tetons and then retrace southward in the fall. The Twin Eagle (née Carney) Ranch sits right in the middle of it, making its conservation a victory for the pronghorn.

Just two days prior to Haaland's announcement, however, the corridor suffered a major blow when, as first reported by *WyoFile*, a federal judge cleared the way for Jonah Energy's 3,500-well Normally Pressured Lance Field natural gas drilling project to advance on 140,000 acres of mostly public land — smack-dab in the Path



THE GOOD

Monarch makes a comeback?

In spring 2021, it seemed as if the monarch butterfly was doomed. The Xerces Society, which conducts an annual California-centered count, documented a 99% decline in monarch populations since the 1980s, possibly caused by climate change, increased use of the herbicide glyphosate, industrialization and the residential development of farmland. So it was a bit of a welcome surprise this winter when California's skies fluttered with orange and black wings: Xerces' Thanksgiving count tallied **250,000 monarchs**, compared to just 2,000 the previous year.



Pupfish return: Fish biologists were swigging the bubbly (figuratively) after counting a whopping **175 Devils Hole pupfish** this spring. That may not sound like much, especially since it constitutes the species' entire wild population. But it's the most seen in 22 years at the tiny fish's tiny habitat, which comprises the upper 80 feet of a water-filled cavern in a detached unit of Death Valley National Park in Nevada. Prior to the 1990s, the Devils Hole pupfish — one of the world's rarest fishes — consistently numbered about 200, but the population plummeted to less than half that before this recent rebound.

of the Pronghorn. When the Bureau of Land Management OK'd the project in 2018, conservation groups sued, saying the agency didn't properly consider impacts to the pronghorn and greater sage grouse. But on April 5, U.S. District Judge Scott Skavdahl rejected their challenge.

Now it appears that even as the pronghorn were guaranteed clear passage through the Twin Eagle Ranch, the groundwork was being laid for an industrialized obstacle course that they'll have to navigate one day.

The entire back-and-forth epitomizes the good, bad and ugly state of wildlife in the West in the spring of 2022, as setbacks are followed by breakthroughs — and vice versa. 🌸

THE BAD

Wind power vs. birds: ESI Energy, a subsidiary of renewable energy giant NextEra, has killed at least **150 golden and bald eagles** at its wind power facilities in eight states since 2012 without applying for an incidental take — or accidental killing — permit, according to federal prosecutors.

The company was fined over \$8 million and sentenced to five years' probation after pleading guilty to nine of those killings in Wyoming and New Mexico. Meanwhile, the Los Angeles Water and Power Department has applied for a permit from the U.S. Fish and Wildlife Service to cover the incidental take of up to two free-flying California condors and two associated eggs or chicks over 30 years at its Pine Tree Wind Farm in the Tehachapi Mountains. The utility is breeding birds in captivity in hopes of replacing the slain vultures. The California condor is North America's largest land bird, and though it has been brought back from the brink of extinction, it remains imperiled (See story on Page 7).

Get the lead out (of the eagles): The first study of population-level lead poisoning in bald and golden eagles was published this winter. The news was not good: Of the more than 1,200 eagles sampled, **almost half showed evidence of repeated exposure to lead**, most likely from ammunition fragments ingested after hunters dress game in the field. Bald eagles are not affected as much because their numbers are climbing at a rapid rate, researchers say. "In contrast, the golden eagle's population is not as stable, and any additional mortality could tip it towards a decline," said Brian Millsap, U.S. Fish and Wildlife Service national raptor coordinator and co-author of the study.

Paucity of pinyon jays: Pinyon jays — social corvids often called camp robbers, owing to their tendency to snatch campers' snacks — are critical components of the Southwest's piñon-juniper woodlands: They harvest piñon nuts and bury them for later eating, leaving some of the buried seeds to germinate and grow into new piñon trees. Now the birds are disappearing at an alarming rate; over the last five decades, the population has **declined by as much as 85%**. Suspected culprits include thinning or clearing of piñon woodlands and climate change's impact on habitat. In April, Defenders of Wildlife petitioned the Biden administration to protect the bird under the Endangered Species Act.

SOURCES: U.S. Department of Interior, Jonah Energy, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, USDA, WildEarth Guardians, Xerces Society, U.S. Justice Department, Defenders of Wildlife

IMAGE CREDITS: Black bear, Mark Raycroft/Minden Pictures. Wyoming pronghorn, Shattil & Rozinski/Minden. Monarch, Sean Crane/Minden. Pupfish, Olin Feuerbacher/USFWS. Golden eagle, Chris and Tilde Stuart/Minden. Pinyon jay, Alan Murphy/Minden. Beaver, Nicole Mays/CC via Flickr. Wolf, John Shaw/Minden. **Page design:** Luna Anna Archey / HCN



Birds vs. infrastructure (and felines)

234,012
Estimated number of birds killed by wind turbines in the U.S. each year.

500,000
Estimated number of birds killed after landing in oil wastewater pits.

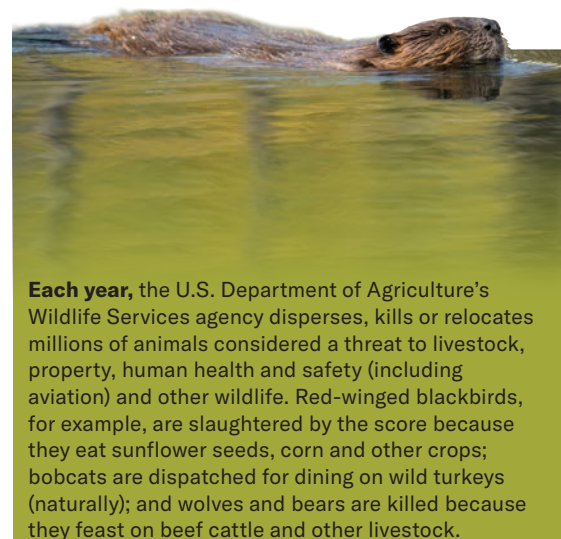
365 million
Estimated number killed in collisions with buildings and windows.

2.4 billion
Estimated number killed by domestic cats.



THE UGLY

Wrangling over wolves: Following the colonial-settler invasion of the Western U.S., local and state governments, ranchers and individuals set out to exterminate the gray wolf. They nearly succeeded, virtually extirpating it from the Lower 48. But federal Endangered Species Act protections helped bring it back, enough to result in the lifting of federal protections in Idaho, Montana and Wyoming, in 2011. Now wolves are being hunted in the Northern Rockies as avidly as they were in the 1800s. In 2019, the Trump administration delisted gray wolves in the remaining states, potentially opening those sparser populations to the same treatment. But a federal judge reversed that decision earlier this year. Mexican wolves have remained protected, and in March, the U.S. Fish and Wildlife Service reported that the **population grew by 5%** last year, to reach a total of 196 animals.



Each year, the U.S. Department of Agriculture's Wildlife Services agency disperses, kills or relocates millions of animals considered a threat to livestock, property, human health and safety (including aviation) and other wildlife. Red-winged blackbirds, for example, are slaughtered by the score because they eat sunflower seeds, corn and other crops; bobcats are dispatched for dining on wild turkeys (naturally); and wolves and bears are killed because they feast on beef cattle and other livestock.

Number of animals killed by the USDA's Wildlife Services in 2021:

227 Badgers	663 Feral chickens
421 Black bears	63,965 Coyotes
24,683 Beavers	143,903 Feral swine
15,096 Red-winged blackbirds	324 Wolves
595 Bobcats	10,775 Black-tailed prairie dogs
549 Feral cats	

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Jürgen & Christine Sohns

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Candace Taylor | Lakewood, CO
Yvonne Thomas | Corvallis, OR
Tom Tremain | Salmon, ID
Wendy Tsien | Eugene, OR
Peter Tymstra | Tiburon, CA
Eric W. Vaughn | Centennial, CO
Eve Vogel | Amherst, MA
Wendy Ward | Marine On St. Croix, MN
Theodore & Emily Warm | Boulder, CO
Louis Warren | Davis, CA
Bob Watts | Pocatello, ID
Becky Weed | Belgrade, MT
Hartwell Welsh | Bayside, CA

FRIEND (\$50-\$74)

Anonymous (16)
In memory of Cheryl Chirapolos | Grayslake, IL
In memory of Truth Colvard
In memory of my father, Gordon L. Nelson
In memory of William E. Seberger | Tucson, AZ
Jon Archer | Bend, OR
Daniel & Sherri Arosteguy | Grand Junction, CO
Joanne Athearn | Petaluma, CA
Glenda Barnes | Bozeman, MT
Brooks Barron | Carbondale, CO
Chris Bata | Denver, CO

Rex L. Bavousett | Kearney, NE
Steven Beck | Golden, CO
Joseph Bielevicz | Pittsburgh, PA
Gael Bissell & Dick Mace | Kalispell, MT
Art Boswell | Tucson, AZ
Howard Braham | Spokane Valley, WA
Dan Calvert | Olympia, WA
Kathleen Feinblum | San Francisco, CA
Stuart Carlisle | Turners Falls, MA
James Cavin | Seattle, WA
Nancy & Bill Cella | Jemez Springs, NM
Tom & Fran Chadwick | Nipomo, CA
Lloyd & Nancy Chapman | Ephrata, PA
Matt Chew | Phoenix, AZ
Robbin Clark | Durango, CO
Sharon & Malcolm Clark | Mammoth Lakes, CA
Stephen Commins | Carlsbad, CA
Steven C. Cowgill | La Jolla, CA
Rita & TerryLee Curtis | Durango, CO
Billy Darst | Madison, MO
Tony Davis & Joyce Westerbur | Missoula, MT
Deborah Dedon | Tucson, AZ
John & Christine Dildine | Loveland, CO
Alice Dorshow | Catonsville, MD
Barry Doyle | Ridgway, CO
Lee Drickamer | Oberlin, OH
Steven Duhaime | Salida, CO
Abigail Dunning Newbury | Denver, CO
Nancy Easter | Tucson, AZ
Bruce & Marlene Ehresman | Ames, IA
Hailey Ellingham | Saratoga, WY
Sally Ellis | Boulder, CO
Ned Farquhar & Janis Finelli | Moretown, VT
Beth Wendel Ferguson | Denver, CO
Kathleen Flanagan | Santa Fe, NM
William & Nancy Flood | Glenwood Springs, CO
Toni Foran | Toquerville, UT
George & Linda Gerstle | Boulder, CO
Ronald C. Gesick | Greeley, CO
Suzanne Giles | Arvada, CO
Robert Grangaard | Hayden, ID
Linda Gryczan | Helena, MT
Karl Halupka | Leavenworth, WA
Todd & Deb Hanna | The Dalles, OR
Steve Harris | Hayward, CA
Brian Harrison & Felicity Fonseca | Dixon, NM
Karl Heins | Oakland, CA
Mike Higgins | Halfway, OR
Peter Jacobsen | Davis, CA
Michael Johnson | Portland, OR
Mel Jordan | Woodland Park, CO
Paul & Judith Kindel | East Lansing, MI
Gwen Kittel | Boulder, CO
David Lackey | Germantown, NY
Susan J. Llorca | Panama City Beach, FL
Rose Longoria | Yakima, WA
Mary Beth McAuley | Pagosa Springs, CO
Terri McEntee | Castle Rock, CO
Gerald Meral | Inverness, CA
Mike Miller | Downers Grove, IL
Victoria Minto | Omak, WA
Jim & Leslie Morefield | Minden, NV
Curt Mossestad | Ojai, CA

Kay Myklebust | Salem, OR
Vanda G. Nohinek | Steamboat Springs, CO
Tara Parr & Charlie Snider | Bellvue, CO
William Patterson | Montrose, CO
Robert A. Pelak & Laura Walton | Los Alamos, NM
Carl Perry & Amanda Leib | Flagstaff, AZ
Belinda Platta | Dolores, CO
Beth Sennett Porter | Olancha, CA
Don Porter | Sunriver, OR
Douglas Potter | Coeur d'Alene, ID
Peggy Purner | Mesquite, NV
Robert & Pat Raburn | Oakland, CA
James V. & Elizabeth W. Ralston | Los Angeles, CA
Norman Rasulis & Rita Kissen | Fort Collins, CO
Jake Rosen | Los Angeles, CA
Roberts A.L. Sargent Jr. | Cedaredge, CO
Angie Schmidt | Cheyenne, WY
B. Schoen | El Prado, NM
Robert A. Seckman | Aurora, CO
Elizabeth Stefanics | Cerrillos, NM
Wendy Stokes | Middletown, CT
Carolyn Sunderland | Granby, CO
Jon Thompson | Boise, ID
Nora Trujillo | Cave Junction, OR
Steve Ulrich | El Sobrante, CA
Teresa Urbanowski | Wheat Ridge, CO
Tom Viola | Berkeley, CA
William & Ellen Wade | Flagstaff, AZ
Jim Ward | Aspen, CO
Betty & Bill Weida | McCall, ID
Lyle Wendling | Coeur d'Alene, ID
Patty Wentz | Portland, OR
Gary Werner | Madison, WI
Mark Wigg | Salem, OR
Warren Wilke | Lakewood, CO
Deborah & Will Wroth | Santa Fe, NM

WELCOME TO THE SUSTAINERS' CLUB

Anonymous (5)
Mitchell Barker | Santa Fe, NM
Kelley Carroll | Truckee, CA
Nancy Easter | Tucson, AZ
Don Fenstermaker | Pasadena, CA
Jonnie Godbey | Pleasant View, CO
Pamela Greager & Shauna Atkins | Longmont, CO
Sego Jackson | Clinton, WA
Gary Kirkpatrick | Kirkland, WA
Sherry Kraemer | Santa Fe, NM
Leonard Lloyd | Fremont, CA
Andrew C. Mergen | Washington, DC
Kevin Ott | Crested Butte, CO
Mark Saurer | Park City, UT
Ann Schinnerer | Jackson, CA
Susan Suazo-Sanchez | Ignacio, CO
Sharon Tool | Sacramento, CA
Ken & Cindy Wisherd | Bonner, MT
Richard Word & Laura Brown | Santa Fe, NM

Want to tell us why you support *HCN*?
Email fundraising@hcn.org

DEAR FRIENDS

Meet you in the metaverse?



Gabriella Trujillo / HCN

JUST KIDDING — WE HAVE NO IDEA WHAT A METAVERSE IS. A recurring theme of this page is *High Country News'* search for creative ways to connect with our readers in this era where our staff is scattered across the region and a pandemic still lingers. One way we've been doing that is by hosting more virtual events.

Late last year, we started a series of live video conversations for *HCN's* supporters, where fellows, interns, editors and even board members have joined to talk about their recent work. So far, we've discussed how public lands are absorbing the pandemic-fueled crush, the downsides of green energy and the Indigenous fight for environmental justice, to name a few.

The series — which we've taken to calling *HCNLive!* — has let us introduce our supporters to the faces behind *HCN* and field some of your questions. In fact, each event has been filled with so many keen, insightful queries that we could never hope to answer them all. *HCNLive!* is taking a well-earned summer break, but if you want to hear when the next event in the series is scheduled, simply make a donation of any amount to *High Country News*. (The link is hcn.org/support, should you be moved to support *HCN* beyond the cost of your subscription.)

Meanwhile, on social media, we've begun hosting more events where readers can learn about *HCN's* recent work, maybe get a peek behind the scenes or toss a few questions our way. On Twitter Spaces, an audio-only format anyone can listen to, writer Carly Cassella discussed the mysterious mud worms showing up in Washington oysters harvests today and the clues hidden in ancient shells, a story published in April's Archives issue. That was followed by Ruxandra Guidi's chat with Miguel Ordeñana, the subject of her May profile — the wildlife conservationist who first captured footage of P-22, the mountain lion that braved the Los Angeles freeway system (yikes!) and somehow made a home in Griffith Park.

On behalf of all the staff who've helped put these together and the contributors, writers and friends who have joined, I'd like to thank everyone who's been able to watch, listen or participate. Let me know at dearfriends@hcn.org if you've enjoyed the events, what might make you hit that register button and what other ideas you have for how we can meet across the West's vast spaces to share good conversations.

— Michael Schrantz

New faces

Much of the credit for our recent social media events goes to **Michael Leveton**, our new community outreach manager. Michael has worked with big names like Gatorade as well as important causes like GenderCool, and we're happy to have his energy, enthusiasm and sense of humor to power our new outreach.

HCN also welcomed a new contributing editor for books, culture and commentary. **Melissa Chadburn** has been an editor for the Economic Hardship Reporting Project and has written for the *LA Times*, the *New York Review of Books* and *The New York Times Book Review*, among others. Her first novel, *A Tiny Upward Shove*, was published this spring to enthusiastic reviews, with *Publishers Weekly* lauding it as "an astonishing debut ... electrifying." We are delighted to have her on board.

It takes a lot of work — and a lot of talented people — to keep *HCN* going. This page was designed by **Marissa Garcia**, who joined us earlier this year and is doing a wonderful job of sending aesthetically pleasing letters, brochures, emails and more out into the world.

And **Bradon Schwarz**, the newest member of our fundraising team, has already jumped into the work of building relationships with *HCN's* faithful across the West. Thank you, Bradon!

Last but not least, a hearty (if belated) congratulations to **Brian Oaster**, who started out as an intern and is staying on in a permanent position as a staff writer on our Indigenous Affairs desk. Check out Halito, their weekly video roundup of the week's news at hcne.ws/halito



UNBEARABLE HEAT

How last year's record-breaking heat wave caused misery and chaos for Washington's incarcerated population — and why it's set to happen all over again.

By Sarah Sax | Illustrations by Joan Wong

LATE LAST JUNE, farmers in Walla Walla, Washington, noticed something odd happening to their onions. Walla Walla, an oasis in the middle of the state's high desert, is bursting with vineyards, wheat fields and acres of the city's eponymous sweet onions. As temperatures climbed above 100 degrees Fahrenheit, then above 110 degrees, the oversized onions began to burn, pale blisters forming underneath their papery skins. When the temperature reached 116, the onions started cooking, their flesh dissolving into mush.

Four miles away is the Washington State Penitentiary. It's one of the country's oldest prisons, established in the 1880s, before Washington achieved statehood. In June 2021, over 2,000 people were incarcerated in its large concrete buildings. In the Hole — the name incarcerated people use for the solitary confinement unit — the air conditioning had stopped working. Dozens of people spent 23 hours a day locked in small concrete and metal cells, even as temperatures continued to soar.

Washington isn't known for extreme heat, but far above the fields and prison, two air pressure systems had collided, creating a massive heat dome: a cap of warm air that sealed in the heat and blocked the flow of cool marine breezes from the Pacific. The resulting weeklong heat wave brought some of the hottest temperatures that the state has ever experienced.

State officials and media had begun to

sound the alarm the week before. "'Heat dome' may push Western Washington temperatures into record-breaking territory," the *Seattle Times* wrote on Sunday, June 20, the first day of summer. Two days later, the National Weather Service started issuing excessive heat watches and warnings for the upcoming weekend covering almost all of Oregon and Washington. Seattle and King County offered emergency guidance: "Spend more time in air-conditioned places. If you don't have air conditioning, consider visiting a mall, movie theater or other cool public places." Around the state, people began stockpiling ice and ice cream, and fans and air conditioners became harder and harder to find.

That was when Darrell Cook started to worry.

COOK, WHO IS INCARCERATED at the Twin Rivers Unit inside the Monroe Correctional Complex, the state's second-largest prison, had been following local news broadcasts about the impending heat wave on TV. Cook has diabetes, which puts him at risk for heat-related illness, such as heat stroke. He was concerned about the other men in his unit, too.

The combination of extreme heat and incarceration has been dubbed an "overlooked crisis." Incarcerated people are vulnerable to heat for many reasons: Nationwide, almost 20% are over the age of 51, and underlying medical conditions like obesity, hypertension and asthma are common. By definition, people in prison are confined to a space they have

no control over. And many suffer from mental health issues and take psychotropic medications, which can reduce the body's ability to regulate temperature.

Summers at the Twin Rivers Unit, 30 miles east of Seattle, have always been miserable, Cook said in a phone interview. The facility lacks air conditioning, and large glass skylights in a common area create a greenhouse effect, while the unit's open showers drive up the humidity. Cook compared the resulting muggy, grimy atmosphere to a petri dish. On the news, broadcasters emphasized how dangerous the heat would be for anyone stuck in unairconditioned buildings, especially elderly people with medical conditions. That described a good portion of the population at Twin Rivers, Cook thought.

High Country News obtained 95 grievances submitted to officials by people incarcerated in 10 of Washington's 12 state prisons during the unprecedented heat wave. These reports, acquired via a public records request, reveal extreme conditions — and the state prison system's failure to establish coherent and actionable heat plans that would keep the people they are responsible for safe. The incarcerated people interviewed for this piece recalled dangerous indoor temperatures that lasted for days, causing heat exhaustion and rising panic, and prison staff resorting to making up rules that lacked consistency. Many heat provisions were implemented ad hoc, after incarcerated people complained or begged for relief.

The overall picture shows a state prison

This piece was produced in partnership with Type Investigations.

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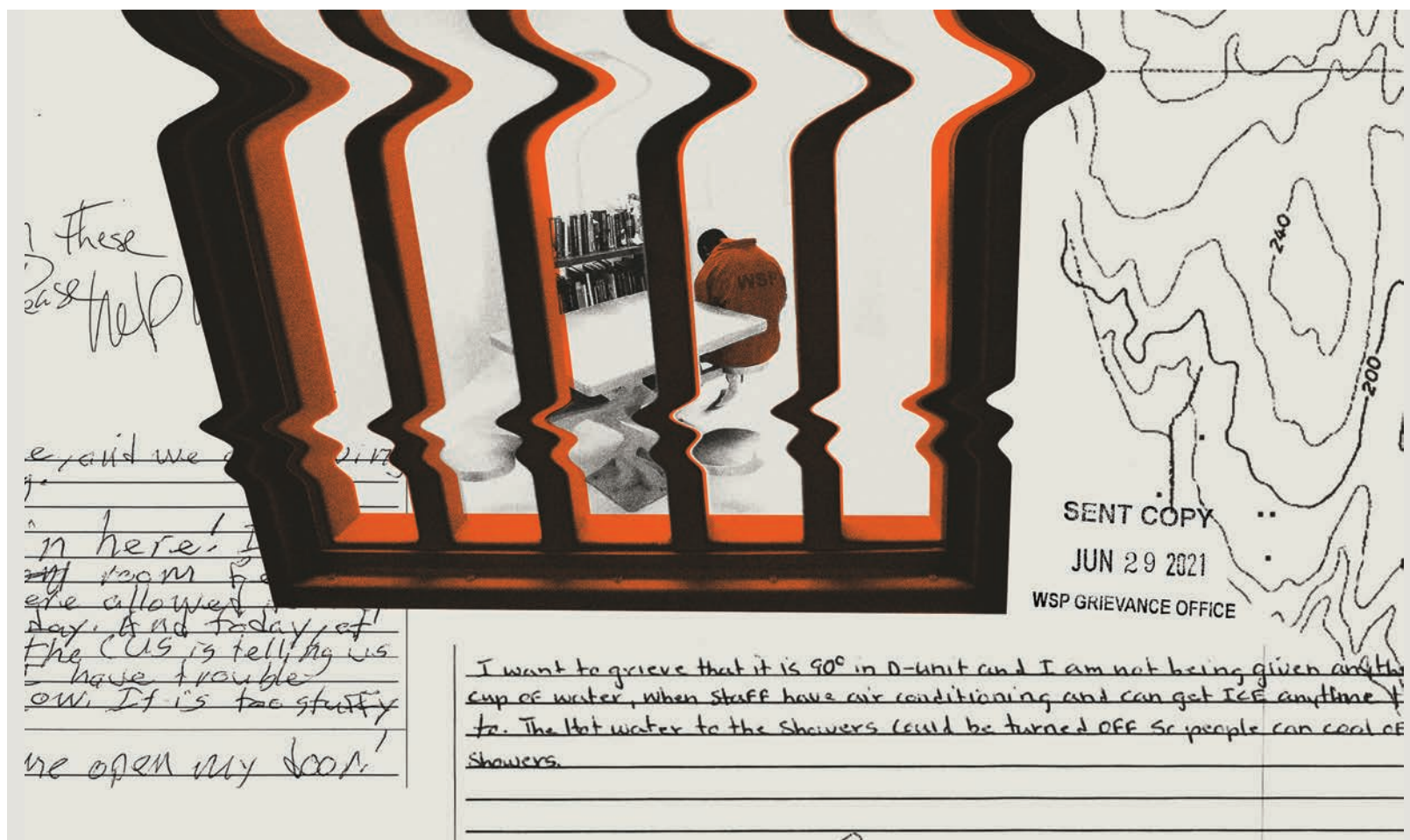
This is my third complaint today. This is unfair
that we have to do without ice it is over 90+
degrees in these cells and in the dayroom there



06 28 21

STATE OF WASHINGTON
DEPARTMENT OF CORRECTIONS





system floundering under the heat. Interviews with officials, legal and policy experts and incarcerated people show that not only has the Washington State Department of Corrections failed to address many of the problems that were exposed, it is also failing to prepare for an increasingly hot future.

THE CASCADE MOUNTAINS stretch like a spine up the state of Washington. Eighty percent of the state's nearly 8 million residents live in western Washington, which is buffered by the ocean and much more temperate than eastern Washington. Nine of the 12 prisons run by the Department of Corrections are located there. According to Jacque Coe, the department's former communications director, all of the units at the three state prisons east of the Cascades are air-conditioned. In contrast, only a handful of those on the west side are.

"In the event that the temperature exceeds the comfort zone" — 66 to 80 degrees Fahrenheit in the summer, a standard from the American Correctional Association — "for a prolonged period of time, alternate methods of heating and cooling will be put in place as a temporary measure to keep the unit within acceptable guidelines," Sean Murphy, the deputy secretary of the Department of Corrections, wrote in response to legislative officials and concerned family members before the heat wave.

But only one Washington prison had a plan in place before the heat wave hit, according to documents released by the Department of Corrections in response to a public records request. One other prison released heat provisions two days into it. (Prison staff receive yearly training on recognizing the symptoms of heat exposure, according to the Department of Corrections.)

That Friday, June 25, before the heat wave began, Jeannie Miller, assistant secretary of the Administrative Operations Division, sent an email to all Department of Corrections staff. The three-page memo noted that the upcoming extreme weather meant that there would be "little to no relief from the heat overnight." It warned of the high risk of heat-related impacts, especially for heat-sensitive people without cooling and adequate hydration, and included tips from the Washington Department of Health on how to stay cool — using fans to blow hot air out, staying in air-conditioned spaces, and covering windows and using awnings, which can reduce the heat entering a building by as much as 80%.

THE FIRST DAY of the heat wave, Saturday, June 26, was hot with barely a whisper of a breeze. Amtrak slowed down trains to avoid derailments due to heat-warped tracks. Seattle broke its all-time June temperature record — 97

degrees — with a new record of 102.

The Monroe Correctional Complex, where Cook is incarcerated, implemented an Incident Action Plan, mandating cooling stations in some facilities and misting stations and sprinklers outside. People were permitted to cover their windows and wear shorts and sandals. It was the only state prison to put an emergency heat plan into place.

On the other side of the Cascades, an incarcerated man with asthma at the Airway Heights Corrections Center near Spokane was struggling with the heat. Unable to stand it any longer, he filed an emergency grievance. "It is very hard to breathe with the extreme heat and humidity," he wrote.

The grievance process, established by federal law in 1996, is supposed to give those incarcerated a way to document complaints and resolve them internally. In theory, after a grievance form is received, a resolution specialist has up to 10 working days to respond and try to resolve the issue informally — or an hour, if it's an emergency grievance.

Six hours later, with the heat still rising, the man wrote another grievance, his handwriting larger and more urgent, spilling over the form's small black lines. "Heat is too great and causing me trouble breathing," he wrote, requesting that fans be put in the dayroom. This time, he submitted the grievance to the

its been very hot inside of our rooms The heat is making us feel very miserably sick, its exhausting.

resolution box in the unit. Suzanne Cook, Darrell's wife and a criminal justice advocate, said that, in practice, the grievance process is a bit of a joke. The incarcerated individuals interviewed for this piece agreed; few expected their grievances to be addressed fairly or timely, and some feared retribution by prison staff for even submitting them. "They're only a snapshot of what is happening inside," Suzanne Cook said. Christopher Blackwell, an incarcerated writer in Washington, echoed this sentiment in a recent article, calling the prison grievance process "broken and unjust."

At the top of the man with asthma's first grievance is a note implying that a sergeant read it seven hours after he wrote it; the official response suggested he buy a fan.

SUNDAY, JUNE 27, was even hotter than Saturday. Around Seattle, thousands of Puget Sound Energy and Seattle City Light customers reported outages as people cranked up their air conditioners. At least one Safeway closed its freezer aisle due to the heat.

Inside Washington's prisons, the trickle of grievances became a small stream. Officers at the Twin Rivers Unit started rationing ice and ice water and retreating to their air-conditioned offices, while temperatures in some of the cells reached 100 degrees, according to grievances. Darrell Cook saw signs of heat exhaustion mounting around him. "They were calling medical emergencies literally two, three (times) an hour," he said.

At 1:30 p.m., Cook found James Ruzicka, facedown and shirtless on Ruzicka's bunk, the sun glaring down on him through an uncovered window. Ruzicka, who has a chronic lung disease, had passed out from the heat. "I was working in the pot tanks," a part of the prison kitchen, he recalled in a phone interview. "It was like an oven." He was put in a trauma room to cool down and then sent back to his cell, where Cook brought him water and managed to cover his window.

To the east, behind the walls of the Washington State Penitentiary in Walla Walla, sev-

eral people begged to be taken out of the Hole, where conditions were stifling. "It is out of line how hot it is in our cells," reads one grievance. "It's too hot to live in these conditions, please help!!" another person scrawled in large letters.

Bradley Cooper, 48, recalled lying on the bed, which takes up much of the room, with just his boxers on, sweat dripping onto the hot metal bed frame. "It's like sitting in a sauna, not being able to move, not being able to go anywhere," he said in an interview. "It's miserable."

"Is the heat in your home climbing to unreasonable levels?" the Washington Emergency Management Division tweeted that afternoon. "Don't risk it. Find a cooling center, a grocery store, a shopping mall."

With no air conditioning, no fan, and the sun streaming through his curtainless window, Shane Brewer, a 36-year-old man incarcerated at the Washington Correctional Complex on the Olympic Peninsula, desperately sought some relief. From his bunk, he watched the heat spiral off the metal bars covering the windows. People were overheating in the cells around him, some breaking out in ugly red splotches like chicken pox — heat rash.

"We know policy no obstructed windows," he wrote in an emergency grievance, squeezing the words together to fit them in the small complaint box. "How about a policy when it is 103° with no ventilation and the only way to breathe is to lay on the ground?"

After measuring the cells with a temperature gun, a sergeant decided to allow window coverings. (The Department of Corrections said it had no knowledge of this, and that it was not part of any formal guidance.) But without curtain rods or hooks, people had to be creative, Brewer wrote in an email. Some poked plastic spoons through blankets and jammed them into the window seals, hanging the blanket loosely over the window.

Brewer wedged four 4-ounce Crawford body lotion bottles as tightly as possible between the edges of the blanket and the metal grills, taking care not to touch the piping hot metal with his bare hands. This stretched the blanket more

tightly across the window, he explained.

Nights were the worst; sleep was almost impossible, Brewer said. He would lie down on the bare concrete floor and cover himself with a wet towel, hoping for a few hours of rest.

AT 2 A.M. ON MONDAY, June 28, the temperature in a cell at the Washington Corrections Center for Women measured 94 degrees Fahrenheit, according to an emergency grievance submitted later that day. In a particularly alarming trend, climate change is causing average nighttime temperatures to warm even faster than average daytime temperatures, said Deepti Singh, a climate scientist at Washington State University who studies extreme weather events. This is especially dangerous because it limits the body's ability to cool down, significantly increasing the risk of heat-related illnesses.

As the day got hotter, lanes on Interstate 5 in north Seattle buckled from the heat. A reading of 108 degrees was measured at the Seattle-Tacoma airport, the hottest temperature since record-keeping began there in 1870.

The Department of Corrections sent a one-page email to all state prisons with examples of how some facilities were trying to mitigate the extreme heat. The Office of the Corrections Ombuds, a watchdog agency set up to oversee the department in 2018, sent a team to Monroe. The agency had been receiving heat-related complaints from across the state via a hotline for incarcerated individuals, with the majority coming from Monroe, Sonja Hallum, the interim director of the Ombuds, said.

Cook recalled that the visit created a flourish of activity in his unit; suddenly, maintenance crews were all over, installing water misters indoors and out, and putting ice-water coolers in the dayrooms. When they arrived, the cells registered around 95 degrees; the temperature of the glass skylights above the common areas was 128 degrees. Vents were sucking hot air from the roof and pushing it inside; some incarcerated people had resorted to covering them completely.

The unit is made up of pods, each of which

I sit here with no shirt on and drip sweat. The day rooms not bad but the cell is unbearable.

houses up to 168 men. Each pod was allowed to send 50 people to cooling stations — air-conditioned dining halls — three times a day for an hour on a first-come, first-served basis. (Multiple incarcerated people said the cooling stations became available June 28; the Department of Corrections said they were set up two days earlier, on June 26.) The dining halls had been closed since COVID-19 first became a public health concern in February 2020, so Cook tried to go as infrequently as possible to avoid exposure, as well as pushing, shoving and stampeding.

At noon, the Seattle Immigration Court closed because of the heat; its HVAC system was broken. Paula Chandler, an associate superintendent at the Washington Corrections Center for Women in Gig Harbor, sent her staff a list of hot-weather provisions that authorized window coverings but insisted that doors could be opened only partway — no wider than a trash can. That was a change from the

When asked why all of them weren't moved, the Department of Corrections replied: "Careful consideration was given to determine how and where these individuals would be moved in order to maintain safety and security when it was determined that repairs would take longer than anticipated. There are limited maximum custody beds; moving the individuals to other parts of the facility was not a safe and secure option."

BY TUESDAY, JUNE 29, temperatures in western Washington had begun to creep downward, but the heat wave persisted until the weekend in the eastern part of the state. Temperatures at the Hanford Nuclear Reservation measured 120 degrees — a new statewide high temperature record.

That day, the resolution office pasted a small sticker to the bottom of the grievances filed by the people who had been trapped in solitary at the state penitentiary. "Sorry for the

The toll it took on incarcerated people was both physical and emotional; they experienced harmful and chaotic conditions that left them scared for their safety. (The Department of Corrections confirmed that nine incarcerated people received medical attention for heat-related emergencies; two people were hospitalized.)

The heat wave was an exceptional event, but it is by no means the last of its kind: A study concluded that climate change made the heat wave 150 times more likely to occur. Researchers predict that if global temperatures continue to rise, similar events could happen as often as every five to 10 years before the end of this century in the Pacific Northwest. According to Singh, the Washington State University climate scientist, future heat waves could be even longer, hotter and more widespread.

One question looms for incarcerated people and their families: When the next heat wave hits, will Washington's prisons be prepared?

There is no person or department — at the

How about A Policy When it is 103°F With no Ventilation and the only Way to breath is to lay on the ground?

weekend, when staff had allowed fully open doors. Partially closing them reduced airflow and provoked a deluge of emergency grievances. "Please help, people are overheating," one woman wrote. "Emergency," another scrawled in large letters at the top of a grievance form.

Melinda Barrera, a 41-year-old woman who had been at the prison since 2012, was in the hallway when she saw someone collapse in a heat-induced seizure. She didn't see the second person collapse, even though it happened just outside her cell. Officers ordered everyone back to their rooms while medics arrived, she said. Temperatures in some cells soared to 114 degrees; the heat was so intense it set off the fire alarm. People wore sopping wet clothes in an effort to stay cool, and some were vomiting or had diarrhea. "It was just really bad," Barrera said over the phone. "I can't stress that enough."

By Monday night, people incarcerated at the prison had submitted 38 grievances, almost all of them emergency. That same day, the associate superintendent who had issued the heat provisions changed the rules and allowed — temporarily — the women to open their doors all the way.

In Walla Walla, after three days of extreme heat in tiny cells with broken air conditioning, 39 of the 65 people in solitary were finally moved to a different unit.

inconvenience," it read. "Extra Ice and beverages were provided while the logistics were being completed."

On June 30, the Ombuds Office issued a report with suggestions for how to better cool the units at Monroe — shading cell windows, for example, lowering shower temperatures, and increasing access to ice and fans. After the report came out, the people in charge of the Twin Rivers Unit noted in a bulletin to the incarcerated population that they would consider tinting the skylights and allowing residents to continue covering windows while permanent fireproof curtains were manufactured. Ultimately, neither reform materialized. Instead, the facility hung curtains over the common area windows for the remainder of the heat wave.

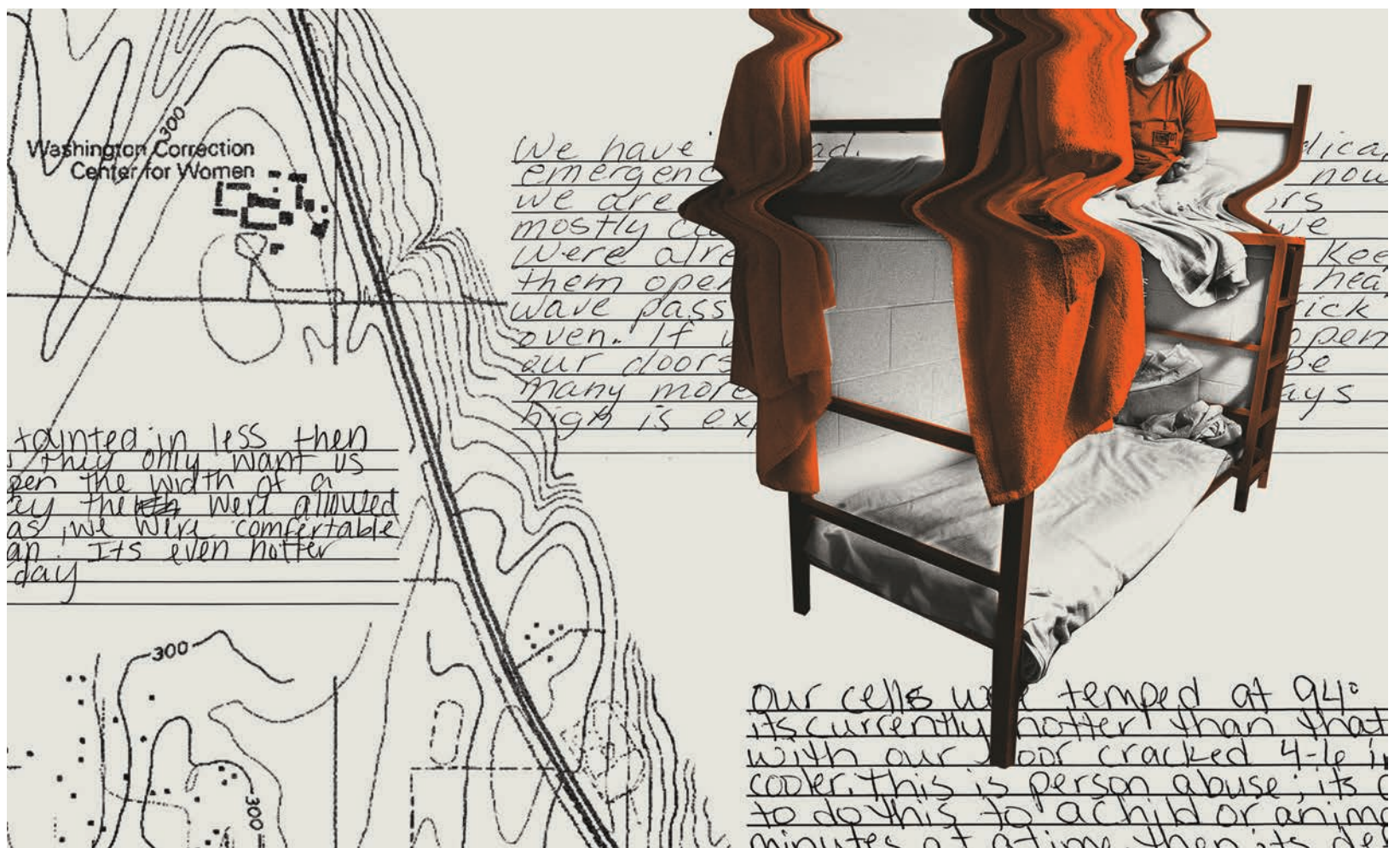
More than a month after the man with asthma at the Airway Heights Corrections Center near Spokane submitted his second grievance, on July 30, the grievance coordinator finally responded. "You can order fans from the store," the response reads, repeating the earlier suggestion. "If you need any medical, please let staff know."

AFTER THE HEAT WAVE finally broke, the devastation it had wrought became clear. More than a thousand people died in the Pacific Northwest, 100 of them in Washington alone.

state or federal level — directly responsible for mitigating the effects of climate change on incarcerated people. And that's problematic, Michael Gerrard, a climate policy expert and director of the Sabin Center at Columbia University, explained in an interview. "Without an official or an office charged with that responsibility, the work will be ad hoc and sporadic," he said.

Most states lack formal heat mitigation policies for prisons, Carlee Purdum, an assistant research professor at Texas A&M who studies how different hazards and disasters, including extreme heat, impact incarcerated people, said. The Department of Justice's 24-page Climate Action Plan from 2021 doesn't address the risk of extreme heat to the incarcerated population; in fact, it doesn't mention incarcerated people at all. When asked about the plan, the department declined to comment.

In Washington, responses to the heat wave varied significantly across facilities and units. The incarcerated people interviewed for this investigation said a lot depended on who was in charge. Some of the staff tried to help as much as they could, Barrera said. One officer measured room temperatures so that people had the information they needed to make complaints. But low-level officers can't really do anything if their higher-ups aren't on board without facing repercussions, she added.



All prison images: AP Photos

Where extreme heat provisions did exist, the volume and the nature of the grievances indicate that they often weren't adequate to keep incarcerated people cool and safe. Access to things that would cool their bodies and help prevent heat stress was restricted or denied altogether. Window coverings are essential for mitigating heat, but in many instances, people had to petition, beg or risk infractions to block their windows. And some provisions, such as increasing airflow and fans, are ineffective after temperatures reach 95 degrees; according to the Centers for Disease Control, they simply circulate hot air at that point.

Air conditioning is one of the best ways to reduce exposure to high heat in congregate settings, like prisons. "Climate change and extreme temperatures are making it clear that air conditioning is not a luxury. It's a necessity for life," Purdum said. But whether modern air-conditioning systems can even function within prisons' crumbling, leaky infrastructure is unclear. This investigation revealed that, in several instances, prison air-conditioning units or other air-flow systems were either overburdened or not working. In more than one case, they simply pulled in hotter air from outside, making things worse.

In previous years, officials had considered

installing portable AC units in incarcerated individuals' living quarters at the Monroe Correctional Complex Twin Rivers Unit — the dining hall and staff offices already have AC — but the plan was halted due to building design and power and ventilation requirements, according to the Department of Corrections. After air conditioners failed during last year's heat

Please fix the air!!
Thanks

wave, emergency repair projects were started at Airway Heights Corrections Center and at the health-care building at the Washington Corrections Center for Women. The only additional AC construction underway is at one of the Washington Corrections Center for Women's living units, a project that started before the heat wave.

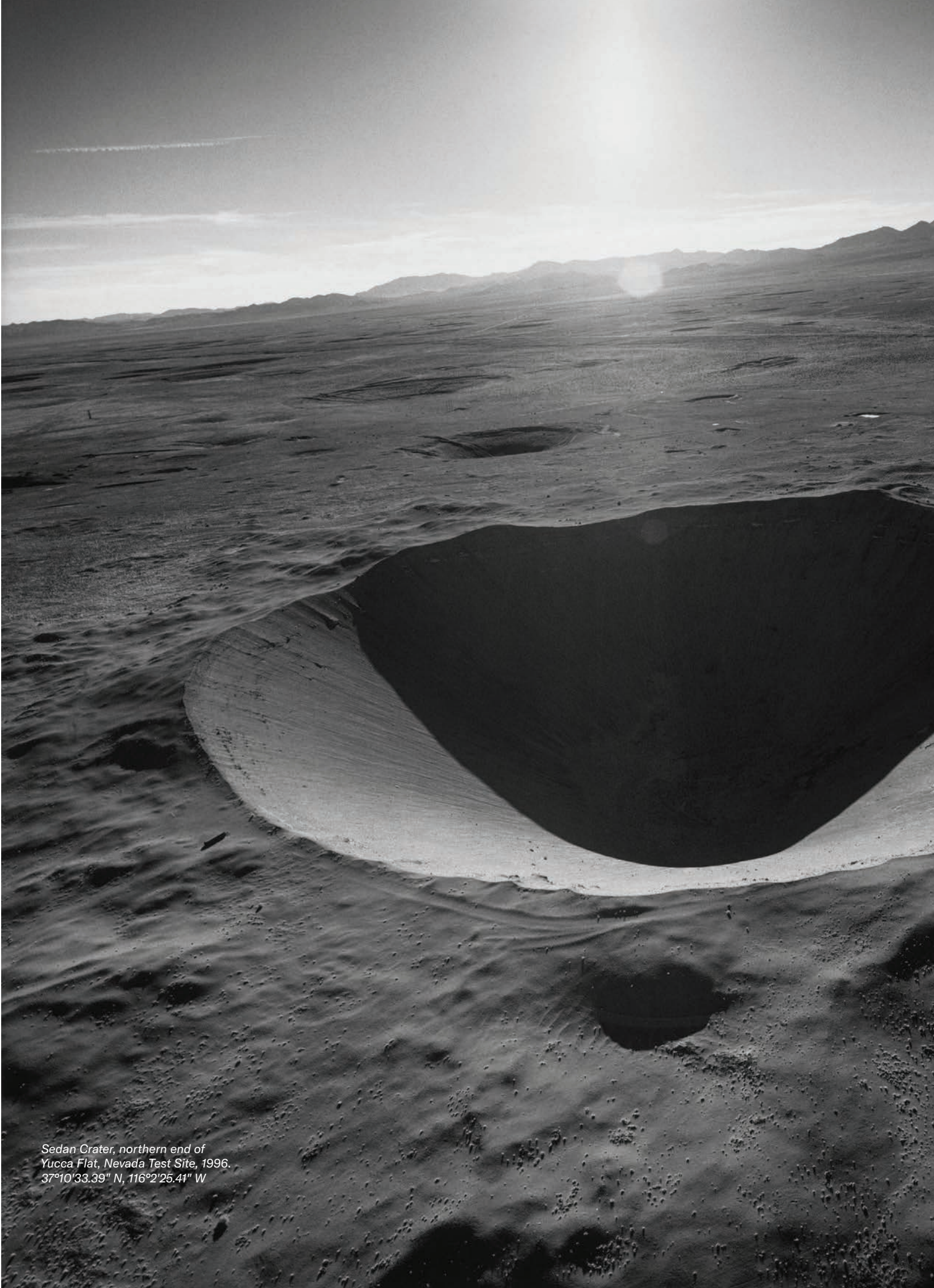
The Department of Corrections provided contradicting replies when asked what it had done since last year's heat wave to prepare for future extreme heat. When asked specifically about the curtains at Monroe Correctional Complex, the department said it had located

material for them, and that installation was expected prior to the summer heat. As of publication, however, the curtains had not yet arrived. There are no plans to permanently cover the facility's skylights. One other facility, Washington Corrections Center in Shelton, treated skylights to reduce the amount of heat entering the building.

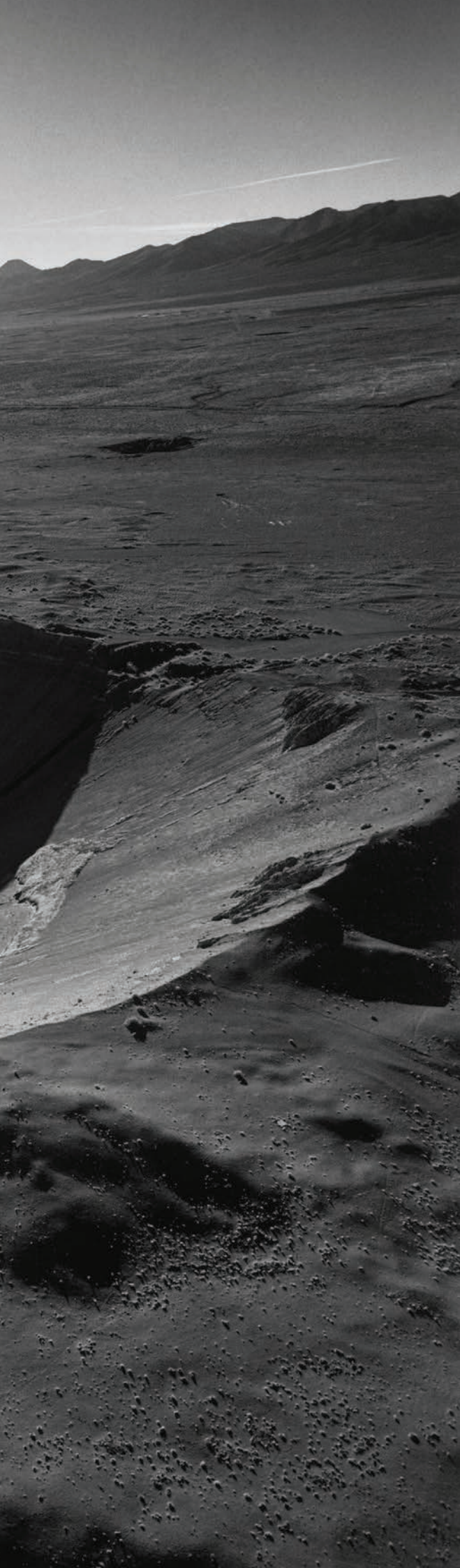
When asked to comment on incarcerated peoples' allegations that it failed to keep them safe, the Department of Corrections did not provide a response.

This April, on the first abnormally warm day since fall, the temperature in Darrell Cook's cell crept up to the 70s; it receives sunlight throughout the day. If it gets too hot this summer, Cook said that he would cover his windows regardless of the regulations, preferring to face potential repercussions rather than suffer through the torturous heat again.

For many, the experience of being left to suffer remains a deeply dehumanizing experience. "They were put in charge of mine and other human beings' care and they didn't take it seriously," Barrera said. "People don't allow their neighbors to treat animals with that type of disregard, so why was it OK to treat us like that?" she asked. "And how can it be justified? ... It's inhumane." 🌸



*Sedan Crater, northern end of
Yucca Flat, Nevada Test Site, 1996.
37°10'33.39" N, 116°2'25.41" W*



Photos by Emmet Gowin
Essay by Terry Tempest Williams

Man Looking Down Earth Looking Upward

Emmet Gowin and *The Nevada Test Site*.

“Then what is the answer?” the poet Robinson Jeffers asked.

—Not to be deluded by dreams.

To know great civilizations have broken down into violence, and their tyrants come, many times before.

When open violence appears, to avoid it with honor or choose the least ugly faction; these evils are essential

To keep one's own integrity, be merciful and uncorrupted and not wish for evil; and not be duped...

To know this, and know however ugly the parts appear the whole remains beautiful.

Emmet Gowin is an artist who bears witness to wholeness in beauty and violence. He understands that one cannot exist without the other. The middle ground of wisdom is found in the making of his prints, shimmering acts of awe that reveal themselves through the spectrum of black-and-white photography. We are born and we die through violent, perfect moments of birth and death. What we create through our species' collective imagination — be it a blessing or a curse, an explosion of glory or a nightmare revisited — is in the eye of the one who beholds a vision. Gowin holds a vision of transcendence. What can be seen can be understood and in time, perhaps, reimagined. The gods within us are both creators and destroyers. The atomic bombs “Little Boy” and “Fat Man” that America dropped on Hiroshima and Nagasaki on Aug. 6 and 9, 1945, ended World War II. But war still

resides in each nuclear warhead stockpiled in the U.S., some 3,750 nuclear warheads as of 2020, plus approximately 2,000 retired warheads awaiting dismantlement, according to the U.S. Department of State. Imagine, in 1967, during the peak of the Cold War, 31,255 nuclear warheads scattered throughout the countryside. Today, they are stockpiled in 11 states and five foreign countries.

Gowin's photographs of the Nevada Test Site (now known as the Nevada National Security Site) show us the extremity of our darkest dreams laid bare in the Mojave Desert — the scars of technology gone mad, revealing a moonscape of craters right here on Earth. The stillness of the desert exploded into a million pieces of radioactive shrapnel carried by the wind that lodged in our bodies.

"My mother, my grandmothers, and six aunts have all had mastectomies and seven are dead," I wrote in my essay *The Clan of One-Breasted Women* in 1991. Now, more than three decades later, more than half my family has succumbed to cancer. I do not think this is an accident, nor is it unique. My family is one story in an anthology of thousands. Our bodies and the body of Earth have been contaminated for generations. And not just from nuclear testing but also uranium mining and mine tailings leaching into rivers and drinking water and the air we breathe. Mormon and Native communities, miners, military personnel and Indigenous people throughout the Four Corners region have all suffered losses that continue to mount, all intrinsically tied to living dangerously in the Atomic Southwest.

Emmet Gowin and I have been friends for decades. We share a history of family and place that began with a letter he wrote me after reading *Refuge: An Unnatural History of Family and Place*. We met in Washington, D.C., with his wife, Edith, at the Tabard Inn. We talked for hours about the sacred nature of life and the responsibilities of artists to respond. He spoke of his desire to photograph the Nevada Test Site, but it was forbidden by the military. Finally, years later, he was given a special clearance, the first photographer to witness the landscape where the nuclear tests had occurred. I will never forget his phone call to me after his first flight in December 1996.

"It happened," Emmet said. "You didn't make it up." His voice was strangely euphoric. He knew of the deaths in my family — my mother, my grandmothers, my aunts. He also knew that without seeing the evidence that was buried, I had doubted myself. A part of me was still naïve enough to believe our government would not do such a thing. "What I saw, Terry, I could never have imagined. But I have the pictures. It was like flying over the moon."

Days later, Emmet shared with me that the gravity and weight of what he had seen had settled into the shadowed territory of a violent truth.

The United States of America detonated over 100 "atmospheric nuclear bombs" above ground from 1951 through 1962 — and continued testing hundreds more below ground until 1992. More than 900 nuclear tests were conducted over the Nevada desert and watched from rooftops by locals for entertainment during the Cold War in small towns like St. George, Utah. Residents now known as "downwinders" were unaware that each "bomb bursting in air" was to become a time bomb

set inside their own bodies that would explode years later and threaten their lives. The last nuclear test, named "Divider," was conducted on Sept. 23, 1992. On Jan. 3, 1993, the second Strategic Arms Reduction Treaty was signed between the United States and Russia, ending the era of atomic testing. By that time, the U.S. had conducted more nuclear tests than any other country in the world.

Those who say nuclear weapons are a deterrent against war and an assurance toward peace are deceiving themselves, believing the red, white and blue diet of an unchecked patriotism that ultimately takes our lives. Or as my father would say, an America "full of poppycock" defined as "nonsense," (1862, American English, probably from Dutch dialect *pappekak*, from Middle Dutch *pappe* "soft food" + *kak* "dung," from Latin *cacare* "to excrete," from root **kakka-* "to defecate").

We may no longer be in the Cold War that Emmet Gowin and I grew up in, but we are in a new war more dangerous and threatening than anyone dreamed possible in the 21st century, while we are also in the midst of climate collapse and a global pandemic.

On Thursday, April 28, 2022, Russian President Vladimir Putin warned the West of a "lightning fast" response if any nation intervenes in the Ukraine war. President Joe Biden called the war "a genocide." And we feel helpless watching vibrant cities fall and burn as the citizens of Ukraine fight and flee and die among the ruins from the heinous atrocities of war.

Nuclear weapons are not a safeguard against war, they are the harbingers of a violence ready made and waiting. It is human nature to use the tools we have made, no matter how vile. With Putin's war underway in Ukraine, the horror of a possible nuclear winter has resurfaced.

Emmet Gowin is an artist of elegant consciousness and craft. To experience these physical prints in person, viewed in a gallery, is to appreciate the technical artistry of his black-and-white photographs — from a shimmering luminosity to unfathomable darkness. He has used his tools of perception, precision and patience to illuminate what we are capable of — great acts of beauty and grave acts of destruction. Gowin's harrowing photographs in his searing book, *The Nevada Test Site*, are testaments to the blinding certitude of power that builds a vision of peace based on weapons of war, a malevolent technology that pushes beyond the outer reaches of a moral intelligence.

For me, Emmet Gowin is a holy man, a humble and determined witness who made vows to expose what has been hidden, allowing us to see the stark evidence and disturbing aesthetic of testing evil.

The Sedan Crater is the largest crater at the Nevada Test Site, measuring 1,280 feet in diameter. "The device was detonated only 635 feet below the surface," Gowin wrote, "in order to demonstrate how much earth could be moved with one explosion." The thermonuclear test used was roughly 104 kilotons — "similar in yield ... to the warhead of a Minuteman I missile." He photographed the Sedan Crater in 1996, from the vantage point of a small plane, kin to an eagle looking down on the desert. On that clear December day, the crater appears as a dark eye looking upward. It does not blink. ❀



*Subsidence craters, looking southeast
from Area 8, Yucca Flat, Nevada Test
Site, 1996.
37°9'20.56" N, 116°5'13.52" W*





*Tower and diagnostic array for the
US/UK test Icecap, suspended
1992, Nevada Test Site, 1996.
37°4'42.80" N, 116°2'53.23" W (left)*

*Three subsidence craters within a
security fence, looking west, Area
10, Nevada Test Site, 1996.
37°11'38.08" N, 116°1'47.92" W
(below)*



*Yucca Flat, complex roads and
subsidence craters crossed by
lines of sight, looking northeast,
Area 7, Nevada Test Site, 1996.
37°4'8.14" N, 116°0'4.32" W
(facing)*

*Frenchman Flat, looking southeast,
Nevada Test Site, 1996.
36°48'42.26" N, 115°55'49.61" W
(below)*







*Looking east from Yucca Lake toward
Plutonium Valley, Nevada Test Site, 1997.
36°58'27.57" N, 115°59'43.63" W*

All images courtesy of the artist and Pace Gallery. Images excerpted from *The Nevada Test Site* by Emmet Gowin. Copyright © 2019 by Emmet Gowin. Reprinted by permission of Princeton University Press. Gowin's latest publication, *The Hundred Circle Farm*, is a companion book to *The Nevada Test Site* and was published in April 2022, also by Princeton University Press.

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ESSAY

They

Searching for identity in rural Utah.

BY JONATHAN T. BAILEY | ILLUSTRATION BY SIENNA GONZALES

I AM A MAN, but sometimes I hate it. It is an inexplicable sensation — dysphoria, defined by Merriam-Webster as “a state of feeling very unhappy, uneasy, or dissatisfied.” Sometimes, I am all those things. Sometimes, I am none.

I feel privileged for being comfortable with my anatomy, for feeling at home with *any* pronoun. Still, I lose myself in a suit because it makes me feel like a man, and I am not one. During puberty, I took scissors to my face — I hadn’t purchased a razor because I was still in facial hair denial — and chopped my bristle until I bled down my parents’ sink. I kept cutting at my neck and body, trying to sever the timeline that made me masculine. These scissors stayed in the bottom of a drawer to emerge only when I was alone, terrified of this shame being uncovered by my parents. Bodies were eternal, I was taught, and God didn’t make mistakes. Men were men;

women were women. As leading Latter-day Saints church authority Dallin H. Oaks put it many years later, “Binary creation is essential to the plan of salvation.”

Those like myself, who tilted toward their assigned gender, had choices. I chose to be masculine and learned to occupy a fraction of my being. I understood, though, that I could hide from neither God nor myself. We both knew what was beneath my clothes, particularly when I succumbed to temptation and shaved my chest bare.

NECKTIES WERE MANDATORY on church Sunday; mine was gray with dark diagonal stripes — a sort of discount-clothes-store design that felt appropriate, given that I couldn’t have felt more subtracted while wearing it. Entering sacrament meetings was an all-you-can-eat buffet of dysphoria — dressed in a manly

man’s costume while being characterized by every synonym for masculine. It was the LDS churchgoer’s way of mingling with the youth, staying involved. Little by little, I gaslit myself into believing they didn’t bother me, but in the sanctity of my parents’ bathroom, I wept at the precision of their words.

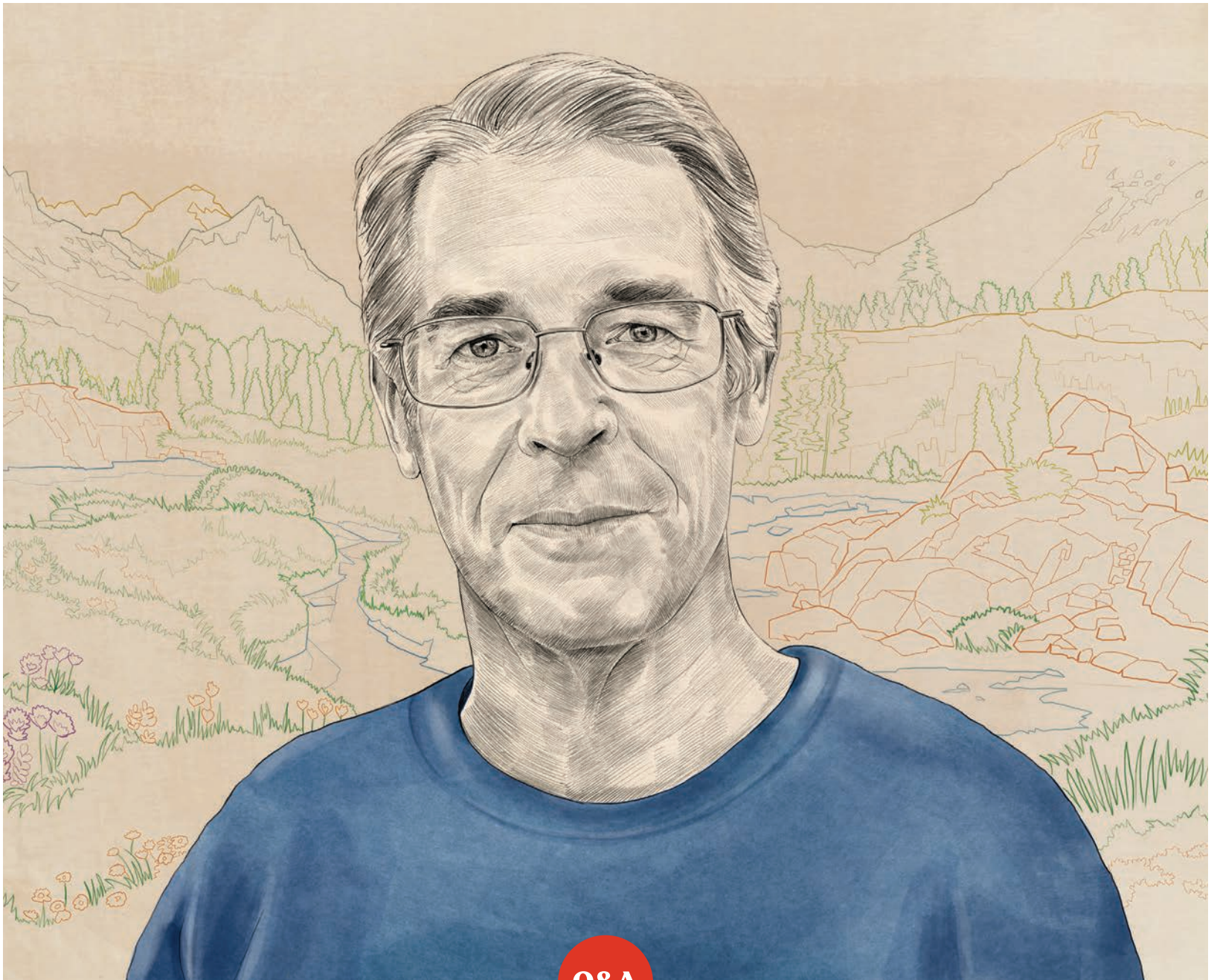
Over the years, I failed at finding the person I wanted to be, even in LGBTQ+ spaces, where *nonbinary* didn’t fit the shape of my spirit. I was looking for revelation and came home with slivers of uncertainty. I concluded I must be faking it, digging too deep. I thought I should ignore this incongruity between my mind and body. Because the English language had no word to give meaning to my pains, I felt like I lacked the authority to exist.

FOR YEARS, I had beautiful dreams where I was a different person. I was not male. I was not female. There existed no society to guard the outlines of my gender. I had curly dark hair, tinged purple, my body strong and capable. There were mountains carved from clay. I felt myself a part of them. I became as I was born: a person, a spirit, a witness to creation. My God was a tree, an old juniper who had weathered their branches to silver. I knew who I was, not because my language gave me permission, but because I *was*. I existed, and the expansiveness of my being grew with the cultivation of my knowing.

Being born of the earth, between mountains and desert, was a source of great power. In the landscapes beyond my rural Utah hometown, I didn’t need to define what parts of me were female and which parts were male, fractionalizing my identity until it shattered. I could simply *be* and be kind, love this world because I belonged to it. I was everything as much as I was nothing. My only future was clay as it sifted through my fingers, holding grains of once-deer and once-primrose, and the fragments of fungi that produced the enzymes to decompose their bodies, giving them new form.

Binary creation is not eternal, nor does it exist. Our bodies are biomes for trillions of microbial cells: bacteria, fungi, viruses. The liquid component of our blood, plasma, is 90% water, recycled from the tiny bladders of grasshopper mice, from evaporative water that escaped from trees and rivers, from moisture captured by soil. Perhaps I *am* they, they plural, a thing of many things, and a living history of everything that swims through my veins. ✨

This essay is excerpted from When I Was Red Clay: A Journey of Identity, Healing, and Wonder, to be published in October by Torrey House Press.



Q&A

HARD ON THE HEELS of his latest science fiction novel, *The Ministry for the Future* — a blistering near-future vision of climate change — Kim Stanley Robinson has just published *The High Sierra: A Love Story*. The book is a captivating memoir laced with reflections on history, literature, geology, ecology, politics and psychogeography, all strung on the narrative thread of the author's lifelong enchantment with rambling and scrambling in a wilderness without trails on a precarious planet spinning in space.

We're on a planet here!

Kim Stanley Robinson talks about his new memoir, *The High Sierra*, and the role the landscape has played in his science fiction.

BY JON CHRISTENSEN | ILLUSTRATION BY LAUREN CROW

How has the High Sierra influenced your science fiction?

I think it's been formative, in a really deep sense. I was surprised how many of my texts have some

analogue to the High Sierra. Right from the start, I can see when Hjalmar Nederland is wandering around Mars in *Icehenge*, it was a Sierra wander. And that kept

happening. It was true in my Mars Trilogy. To terraform Mars is really cheating. Mars is basalt rather than granite. It's poisonous rather than healthy. So, turning Mars into the High Sierras required something like a 2,000-page novel to make it even slightly plausible. I like it when my novels find their way to get in a big walk. It's also a gesture toward Ursula K. Le Guin. In *The Left Hand of Darkness*, when Genly Ai and Estraven have to make a long trek across the glacier, that's a brilliant piece of writing, and it has always inspired me.

Has the process worked the other way around? Has your science fiction influenced how you experience the High Sierra?

When you're hiking in the High Sierra, you're high enough on this planet that you can look down into the Central Valley and down into the Owens Valley and think, "Look, you're on a planet here." This is a kind of a science fiction moment. It leads to other ideas. Like, what is the future of wilderness? Is there wilderness in the Anthropocene? And what are we going to do with this planet in the future? And then I'm also thinking to the deep past. What about the first people that arrived here? Somewhere between 20,000 and 10,000 years ago, humans were wandering these spaces, and they had backpacking kits that were not dissimilar to ours. They were using leather and wood and other natural materials to create light stuff that they could carry on their backs and be comfortable at the end of the day. When I'm up there hiking, my literary imagination, a historical imagination, is definitely fired up.

What has changed in the High Sierra in your lifetime?

The main thing is that climate change has hit the Sierra. Fires mean that it's often smoky up there, and the lower reaches have burned. And the glaciers are going, going, gone. I've seen it with my own eyes. I went up to the head of Deadman Canyon, where there had been seven glaciers, and now there's one. And it's teeny. It'll be gone in three, four years. In the Sierras, everything is happening faster than we thought it would. You know, I was hoping I would die before this happened, and it would be someone else's problem. But, no, it'll be something that I'll see on every trip for the rest of my life.

And how are you feeling about the future of the Sierra Nevada?

I've been pondering that a lot. I think it's a practice honed by the writing of science fiction. This

is where we are, this is the trajectory we're on, so let's extrapolate. The Sierra is part of the 30-by-30 plan for California, keeping 30% of California wild by the year 2030. And they're thinking of 50-by-50 to follow. The Sierras will be very important for that. Tree-ring data are very clear that there have been stupendous droughts in the American West, and we may be entering another one. That doesn't mean that the Sierras are going to die off and be just dead rock. There are extremophiles up there. The life forms up there are used to desiccation, and then being under snow. And being so high and so close to the Pacific, they're going to get some precipitation. Maybe it'll be really irregular; maybe the Arizona monsoon coming up from the Gulf of California in July. But it won't turn into one of these utterly lunar landscapes that you see some places, including other places in the American West. It will always be a little greener, a little more varied, a little more Sierra-like. That's what I'm seeing as I try to run it forward. It'll be hurt, damaged. It will change. But it won't be dead. That's a small comfort.

You were very involved with naming Mount Thoreau recently. And your book takes on the debate about changing the names of some of the Sierra peaks named after racists and eugenicists. What is your guiding philosophy for naming the landscape?

I think it's OK to name peaks after humans as a gesture of honoring them and what they stood for. But almost all the Sierra names came from the period between the Civil War and World War II. And they kind of blew it. The whole ethos at that time was about the great men of history. For one thing, it was intensely male. For another, they were business leaders. Stanford has two; there are two Mount Stanfords in the Sierra Nevada. So, these names, they're crap. And if there's the equivalent of a Confederate monument up there, which there

is, let's take it off. These magnificent peaks should have better names. Native American names should come back where we know them.

One name you strongly believe should stay on the landscape is John Muir. Why do you think Muir needs defending now?

I do feel like his defense attorney. And, of course, he was not perfect. No one is perfect. I'm also trying to interrogate my own feelings now and realizing that I'm partly interested in questions of historiography, like, how do we judge people out of the past? And what's the psychological motivation for judging historical figures for doing good or bad? Is it part of judging ourselves? I think it must be. So then it gets even more interesting. I am interested in Muir. I've read all of his writings, including his unpublished work in the archives. Muir has gotten a bad rap. Out of, I would guess, 3,000 to 4,000 published pages, there are, indeed, at least three or four pages of nasty comments about Native American individuals. Muir did not put it together that he was looking at a devastated refugee population. He was looking at prisoners. That was stupid on Muir's part. And he had prejudices, that's true. But actually, he was a huge admirer of Native American cultures.

What do you think Muir still has to offer us — now, and in the future. Why shouldn't we just bury him for good?

For Native Americans, Muir is symbolic of European settler colonial appropriation of Native lands. So we have white settler colonialism, and the incredible repressed guilt of the suppression and near extermination of the Native American population in this land. How, then, do you pay attention to this land? Like the Wes Jackson book *Becoming Native to This Place*, how do you do it? It's really a religious question, in a way — the transcendentalist idea that nature is a sacred space, that God is

imminent, that you can transcend by paying close attention to nature. As a powerful public intellectual of his time, Muir was a crucial figure in that. He was also an early reader of Thoreau. He read *Walden* when he was young. He read all 20 volumes of Thoreau's complete works. To California Native Americans, Muir stands for appropriation of their ancestral lands, even though, compared to the military people with guns that actually killed them and drove them off, he was just some hippie figure wandering around up there going, "This place is beautiful!" But also, history is not determinative. In terms of its guidance to us, for what to do now, it's extremely ambiguous. You can take what you want out of it.

You're not a big fan of the John Muir Trail, though, or bagging peaks. You prefer going off trail, scrambling over unnamed passes and rambling through high basins without trails. It seems to be almost a philosophy. Why?

Well, it's beautiful. And you can do it. The Sierra is a giant eroded plateau. So, unlike certain other mountain ranges in the world, like the Swiss Alps, you can ramble without getting into immediate danger and without having to climb vertically. The John Muir Trail gets 90% of the traffic in the Sierra now. There is a lot of wilderness with no trails and very few names. When you're rambling and scrambling, you get off trail, but you're not putting your life at risk. The problems are solvable with some intense cognitive and physical effort. And you can get a little thrill of nervousness, like, oh gosh, I better not fall here. But even if you did fall, you aren't going to kill yourself at the bottom of that fall, which is exactly what I don't like about climbing. So the rambling and scrambling is quite a beautiful activity. To be quite honest, I'm playing a game up there. It's all for the fun of it. I'm like a 5-year-old on a jungle gym. And it's just a spectacularly great jungle gym. ☀

THE SEASONS OF UᅆALAQᅆIQ



The Chukchi Sea from Shishmaref, Alaska. **Brian Adams**

The sweet greens of summer

How a dessert made of beach plants ties together a family's generations.

BY LAURELI IVANOFF

WE CHOPPED. And chopped. And chopped.

We were chopping the skinny stalks of beach greens with my Gram's *ulus* at her table in Unalakleet, Alaska. Summer sunlight streamed through the window above the clean kitchen sink of her small HUD home, *The Price Is Right* playing on TV. The greens were a foot long and had leaves the size of a fingernail, which felt rubbery, like they'd squeak if I stroked them with just the right pressure. The stalks gave a good crunch when the *ulu* blade sliced through. We didn't say much.

Gram had picked the greens that morning from the beach just a short walk from her house, greens with an English name so literal — beach greens — I like to think they must have been named by a Native. My kids were with their dad, so I had all day to chop if I needed it. And it felt like I would: No matter how quickly I worked, the mountain of unchopped greens didn't seem to shrink. It felt like making a kale salad for a huge vegan wedding reception where only one dish would be served — kale salad. *Araa, this is going to take forever*, I remember thinking.

I wish I could go back and tell myself to relax my belly. *Enjoy. This is precious. There is no rush. Ask Gram questions. Or don't. Savor it. Soon, you'll miss days like this.*

Now and then, Gram would take the bowl of chopped greens and grab a bundle with her hand to place in a pot of boiling water. As soon as the greens brightened, shocked by the heat, she transferred them to a one-gallon glass jar with metal tongs. When we finally cut the last of the greens, the container was full. Gram added some hot water until the greens were submerged, then topped the jar with a red and yellow cotton towel, tied in place with white cotton string.

The jar went into her dark backdoor entryway, where it sat for a month, undisturbed and fermenting. Once the greens gave off a hint of a sour smell, maybe a month later, they were done. She packed them into quart-sized Ziploc bags to freeze. Later, she would thaw a bag when she was ready to make *achaaqhluk*, a mixture of the fermented greens, blueberries and sugar: the perfect dessert to serve after a heavy meal of dryfish, dried *ugruk* meat, potatoes, carrots, herring eggs and seal oil.

SHE MUST HAVE made *achaaqhluk* with her mom, who died when she was only 13 years old. Her parents died within six months of one another. After that, she heard her aunties talk about sending her and her three siblings

to a children's home in Holy Cross. The eldest daughter and suddenly an orphan, Gram cried to her aunties, begging them to let her stay in Unalakleet to raise the others.

Accounts I've read about the Holy Cross Mission Orphanage are typical of Jesuit boarding schools and orphanages throughout Canada and the U.S.: Sexual assault by the clergy, beatings from the nuns, severe hunger. Gram had a cousin who went to Holy Cross. "She never came back," Gram said, with wonder and sadness in her voice that I felt in my throat.

As an adult, she laughed when she talked about crying to her aunties. Like she got away with something. Even though on that day, a kid herself, she became the parent to three children.

ACHAAQHLUK KIND OF tastes like a fresh and tangy yogurt, without the heaviness of dairy. I don't want to tell you what it looks like, because what it looks like is canned spinach mixed with frozen blueberries, an offensive comparison. In my mind, canned spinach and *achaaqhluk* are on polar opposites of the tastiness spectrum, and I am team *achaaqhluk* all the way. But if I had to equate this delight to any inferior Western food, that's what it resembles.

When I was 4 years old, after one of the many suppers we regularly ate at Gram's, we heard her breaking up frozen greens with a steak knife in a big Pyrex bowl in the kitchen. Shortly after the *achaaqhluk* was on the table, and my parents gave me a small melamine bowl filled with it, I finished the bowl and asked for more. They gave me more. I finished that bowl and asked for more. They gave me more. I finished that bowl and asked for more. They filled it halfway, and said I had enough.

Fermenting greens for *achaaqhluk* creates small amounts of alcohol. Maybe I was just tired and needed a nap, or maybe I passed out from the alcohol in the *achaaqhluk* I overate, but either way, after I overindulged, I was out for the night. From then on, my family called *achaaqhluk* "knockout."

My mom never made knockout, probably because she had the luxury of just going to her mom's to eat it. But as an adult, with my own two kids, living in another town and my own mother dead, I wanted to know how to make one of my favorite foods. The process was mysterious to me, as if Gram had some sort of magic ability to turn a green plant into a tasty dessert. So, during one spring visit home, I asked her to show me how to make it. And like all Inupiaq instruction, there

was little talking. The teaching was by doing.

While chopping the succulent stalks, I thought about how a food processor would really speed things up. Gram would be so grateful. Once back at my house in Nome, I found a Hamilton Beach food processor and had it shipped to her post office box in Unalakleet.

When she died nine years later, we found the food processor in her backdoor entryway, still wrapped in the original plastic. I laughed. Gram preferred chopping with her *ulu* as she had done her entire life, as her mother had done her entire life, and as her grandmother had done her entire life, too.

NOW I LIVE in Unalakleet again, and this month my husband, Timm, our son and I will drive our four-wheeler up the coast toward Blueberry Hill, where thousand-foot cliffs meet a rocky, boulder-strewn beach, north from town. We'll pack a charcuterie of dried salmon, dried seal meat, dried apricots, cut-up apples and a bit of dark chocolate. At some point, I'll spot small clusters of beach greens growing just above the tidewater line, green amongst the black, smooth rocks and bleached cottonwood and spruce driftwood, and I'll tap Timm's arm so he stops the four-wheeler. We'll pull clumps of greens — with the plants rooted in sand, it isn't difficult — and shake the grit from their roots. Henning, our son, will grab a stick or two, pretending to fight dragons or hunt a black bear.

Later, we'll drive home, our bags full, and begin chopping with our *ulus*. I'll probably never take to a food processor, either. I'll notice how my belly, usually tense from the day's demands, is soft, my breathing easy. I'll remember my gram and her gram and hers, and how they chopped and boiled and blanched greens just like this.

Then I'll think of how Gram's tears to her aunties were one of our family's greatest blessings. How her tears did not come from weakness, but from strength. I'll smile and think of her kitchen table, my smile stretching wider as I hear Bob Barker's voice in my head. And I'll feel hot, grateful tears of my own begin to fall, happy to be home. ☀

Laureli Ivanoff, Inupiaq writer and journalist, makes seal oil, dried fish and strong coffee in Unalakleet, Alaska.

"The Seasons of Unjalaqtiq" is a column by Laureli Ivanoff, an Inupiaq writer and journalist, exploring the seasonality of living in direct relationship with the land, water, plants and animals in and around Unjalaqtiq (Unalakleet), on the west coast of what's now called Alaska.

Heard Around the West

Tips about Western oddities are appreciated and often shared in this column. Write heard@hcn.org.

BY TIFFANY MIDGE

THE WEST

Season after season, park visitors disregard rules and risk life and limb for the chance to marvel up close — and maybe photograph — those flamboyantly photogenic “fluffy cows,” aka bison. In South Dakota’s Custer State Park in 2020, a woman got too close to a herd of bison, one of which charged her and hooked her by her belt on its horns, an experience neither of them had planned for. The bison waved her around like a handkerchief and then flung her off, galloping away triumphantly with her jeans still stuck to its horns. The bison and its trophy — those jeans — became an internet sensation in Indian Country, memorialized on memes, quilts, beadwork, T-shirts, ledger art, cartoons, ribbon skirts and more. The woman escaped without serious injury, and her somewhat tattered jeans (with car keys) were later recovered as well.

Confusing national parks with petting zoos is so common (and sometimes so unintentionally funny) that a Facebook group called “Yellowstone National Park: Invasion of the Idiots!” has over 45,000 members. Its description reads: “Welcome to YNP: Invasion of the Idiots! Every year hordes of tourons descend upon Yellowstone National Park and this is the place to share their dumb, dangerous, illegal, and *what-were-they-thinking* exploits. Darwinism at its finest!” The page accepts posts from national and state parks as far away as South Africa, where wildlife watchers who flout park rules sometimes end up eaten by lions.

Newsweek.com reported on one video clip that Sean Swetter

shared with the Facebook group. In it, a man creeps up on a bison, which abruptly turns and bluffs-charges him, until, like an old-time Charlie Chaplin reel, he is seen high-tailing it at a very high speed back down the boardwalk to safety. The video racked up thousands of views. Despite signs cautioning wildlife viewers, animal “attacks” and visitor injuries keep happening. Visitors are warned to stay 100 yards away from bears and wolves and 25 yards from other wildlife. And penalties are severe, even if you don’t lose any clothing. In 2021, KRTV reported a woman who faced jail time for taking photos less than 30 feet away from a bear and her cubs in Yellowstone’s Roaring Mountain area. In March 2022, Yellowstone, the world’s first national park, celebrated its 150th anniversary, but as far as we know

nobody volunteered to be tossed like a Caesar salad by the big fluffy cows.

WASHINGTON

We’ve heard about being caught between a rock and hard place, but have you ever been trapped between a rock and an outhouse? *The Kitsap Sun* reported on a woman who fell into the vault of an outhouse in Olympic National Forest northwest of Seattle. She accidentally dropped her phone into the hole and tried to retrieve it, MacGyvering dog leashes into a harness to rescue it. But her ingenious plan failed and she ended up plunging headfirst into the toilet. After 10 or 15 horrifying minutes, she managed to locate her phone, miraculously get a cell signal and call 911. Firefighters from the Brinnon Fire Department and



Armando Veve / HCN

Quilcene Fire Rescue got her out by passing her blocks to stand on and using a harness (one not made from leashes) to pull her out. The rescuers said the woman, who was uninjured, was thoroughly washed down, but though she was “strongly encouraged to seek medical attention after being exposed to human waste ... she only wanted to leave.”

ARIZONA

A Washington man was banned from all national parks, monuments and federal lands in Arizona for two years, the *National Parks Traveler* reported, and ordered to serve two years of supervised probation. In 2020, Joseph Don Mount facilitated — sans permit — a 139-person rim-to-rim hike through the Grand Canyon’s inner canyon area. Extended day hikes for groups of 12-30 hikers, particularly in select inner canyon areas, must first obtain a Special Use Permit due to growing problems involving trail use — abandoning gear, excessive littering, human waste, overcrowding at restrooms and trailheads and just general concerns regarding trail courtesy with other park users. It’s no coincidence that park personnel are also seeing an increase in injuries and rescue response; in 2021, they responded to 411 search and rescue situations, breaking a 20-year record. One is company, but by anyone’s standards, 139 is a crowd. When you head outdoors this summer, follow these simple rules: Don’t smuggle illegal hordes of hikers into overcrowded parks; keep your eyes open (and your pants on) around wildlife; and, um, do be careful with your phone. ☀



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#IAM THE WEST

MUKTA SHARANGPANI
Academic and activist
Santa Clara University, California

From the coast of India to the sun-kissed beaches of California, I have been grateful to grow roots in two homes. Home, for me, is a sanctuary, a place where one can live and love without fear. Home is storytelling, song, movement, rhythm, melody, the fragrance of the first monsoon rains, the sounds of crashing waves. It draws me to the classroom, where I can write about, practice and teach transnational and postcolonial and ecofeminism. It draws me to anti-domestic violence activism, survivor care and community building, where I can dream along with the younger generation of a world with no more exclusions or forced occupations — where I may continue to adapt like a hermit crab, or a turtle carrying my home on my back.

Do you know a Westerner with a great story?
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