High Country News

IMMIGRANT STORIES

The art and science of prescribed burns

Restoring black abalone on the Pacific Coast

Mothering in an age of wildfire

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The studio that Arizona artist Papay Solomon used during his residency in Maine. **David Blakeman**

High Country News is an independent, reader-supported nonprofit 501(c)(3) media organization that covers the important issues and stories that define the Western U.S. Our mission is to inform and inspire people to act on behalf of the West's diverse natural and human communities. High Country News (ISSN/0191/5657) publishes monthly, 12 issues per year, from 119 Grand Ave., Paonia, CO 81428. Periodicals, postage paid at Paonia, CO, and other post offices. POSTMASTER: Send address changes to High Country News, Box 1090, Paonia, CO 81428. See hcn.org for submission guidelines. Subscriptions to HCN are $45 a year, $47 for institutions: 800-905-1155, hcn.org. For editorial comments or questions, write High Country News, P.O. Box 1090, Paonia, CO 81428 or editor@hcn.org, or call 970-527-4898. For correspondence addressed to High Country News, HCN or to the editors, permission to publish will be considered implicit unless specifically stated otherwise.

Seeking refuge

I CANNOT STOP THINKING ABOUT the people who lost everything in the LA fires. Every day that I go about a normal routine, I feel grateful that life goes on like this for me, but also sadness for those who lost friends and loved ones, and those who are having to start over — people with young children who have nowhere to go; the elderly who lost not only homes but a lifetime of memories; musicians who lost their instruments; artists who lost their art; workers who lost their workplaces; business owners who lost their livelihoods.

Disasters bring great bravery alongside great loss, and, in a place like LA, generosity: mutual aid, fundraisers, neighbors helping neighbors. It is reassuring to see this side of humanity, people who spring into action, driven by selflessness and the desire to help — all the donors, volunteers, organizers. Some of those affected by the fires will have an easier time than others; some have significantly more means and strength, along with the wherewithal to wrestle with insurance companies and FEMA. The scale of loss is difficult to fathom: Over 12,000 homes and businesses destroyed by the Eaton and Palisades fires, and more than 150,000 people displaced.

Let's be honest and call them climate refugees, like those displaced by flooding, desertification and rising sea levels. They join the ranks of people fleeing war, oppression, hunger and humanitarian crises elsewhere. When your basic human rights are denied — when your mere existence is seen as a threat to the powerful and you fear for your life — you flee, often with nothing more than the clothes on your back. Yet the same country that is obsessed with the celebrities who lost lavish homes in the fires treats its own immigrants with disdain, whether they're multigenerational Americans or recent arrivals, here legally or not. What will become, under President Trump, of the more than 1 million immigrants with Temporary Protected Status? Or the 2.6 million seeking asylum and waiting for their hearings?

What happens to the generosity and mutual aid when the suffering is farther from home? When there are differences in skin color, language, sexual preference, religion? There are many ways in which a once-friendly place can become hostile. The LA firestorm reinforces the fact that the West is increasingly vulnerable to the forces that can uproot masses of human beings. It reminds us that there is more than one kind of refugee — and that at some point in the future, some of them might be your neighbors, or you.

Jennifer Sahn, editor-in-chief

RECENT STORIES AT HCN.ORG

Justin Sullivan / Getty Images

What it's like to be an incarcerated firefighter
Eddie Herrera, a formerly incarcerated firefighter, talks about the job and how he sees the Los Angeles wildfires.
By Natalia Mesa

Melissa Lyttle / HCN

Outgoing Bureau of Land Management director optimistic about public lands
Tracy Stone-Manning discusses the BLM's achievements and talks about the future as we enter a new political era.
By Kylie Mohr

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ON THE COVER

If You Can't Remember, it's Not Important; Portrait of Sureya Mardaadi — Somalia. 2019, oil and pastel on Belgian linen, 45 x 80 inches. The painting is by Arizona artist Papay Solomon, whose subjects are, like him, African immigrants. **Papay Solomon**

Illustration from "A Fight We Can Win" *(p. 34)*. **Michelle Urra / HCN**

FEATURES

REPORTAGE

BOOKS, CULTURE & COMMENTARY

OTHER MATTER

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.

POWER TO THE PRAIRIE DOGS!

LOVED the recent article on prairie dogs ("The Prairie Dog Conundrum," January 2025). *Finding Beauty in a Broken World* by Terry Tempest Williams also raises up prairie dogs.

Judith Rice-Jones
Colorado Springs, Colorado

Threatened ground squirrels in the West, like prairie dogs, face a devastating loss of habitat as well as a general lack of interest in their ecological function. It's hard to know how to help, beyond providing the data that we do regarding activity centers, etc.

Public sentiment needs to alter first before conservation efforts will have meaningful and positive effect. Thank you for highlighting this species.

Rogue Detection Teams (conservation detection dog teams for noninvasive wildlife research)
Via Instagram

SOLIDARITY SUCCEEDS

I appreciated reading about the drivers' co-op in Colorado ("Owned and operated," December 2024). Paying workers less than minimum wage is unacceptable and should be illegal. Worker-owned cooperatives have been successful in Spain and Argentina, as well as the U.S. We need more of them! Mutual benefit is best — fair pricing, livable wage and equal respect for all.

Helen Bourne
Encinitas, California

A WELL-EARNED TRIUMPH

I wanted to thank you for the amazing article, "2024's biggest conservation wins for the West" (Dec. 25, 2024). I loved it, and it really brightened my day. I was thankful you featured tribes as well.

We had a huge conservation win this year: The Nez Perce Tribe was the only tribe to prevail in the General Competition for the Climate Pollution Reduction Grant. We also won a tribal set-aside award.

It is a huge win for us, and we still can't believe it. It will fund solar, energy efficiency, green cars and charging stations whose purpose is ultimately to protect salmon.

Other tribes won big, too, and it was a historic year. We are going to miss the (Biden) administration so much!

Thank you so much for giving us all glimmers of hope.

Stefanie Krantz
Climate change coordinator
Nez Perce Tribe
Lewiston, Idaho

BEYOND *REZ BALL*

The relationship between basketball and First Nations is a fascinating story, and Jason Asenap's article ("For the win," December 2024) provides a good example. To learn more, I recommend *Full-Court Quest: The Girls from Fort Shaw Indian School Basketball Champions of the World* by Linda Peavy and Ursula Smith.

The book is well-written, and the little-told story is simply amazing: How a team of determined young women at the Fort Shaw Indian School (near Great Falls, Montana) and their coaches became the basketball champions of the world at the 1904 St. Louis World's Fair. These women went through most of the same social challenges today's students face, and even more that were common about 120 years ago, yet they pulled themselves together as a well-organized team to win so many contests in the public arena of a very competitive sport. One thing I learned is that the Montana region's Native name for surprise or bonus is lagniappe, and this "high-country" biography is just that. Readers will not be disappointed.

James Bergdahl
Spokane, Washington

Asenap's review of *Rez Ball* omits the 2019 *Basketball or Nothing*, which follows the Chinle High School basketball team as they try to become Arizona State Champions. This Netflix mini-series profiles actual members of the Chinle team and their lives as they try to devote themselves toward a seemingly unattainable goal while also navigating the often-challenging daily existence typical of young individuals in the Navajo Nation. In the same vein is the earlier 2001 documentary *Rocks with Wings*, which follows the 1987 basketball season of the Lady Chieftains of Shiprock High School. Both documentaries profile actual players without relying on actors.

Lissa Paak
Durango, Colorado

VOLUNTEER FOR THE FORESTS

The Forest Service cuts of seasonal worker jobs will definitely impact public lands ("The Forest Service is cutting its seasonal workforce and public lands will suffer," Oct. 8, 2024), but private citizens can contribute needed services. Aldo Leopold taught late in his career that we cannot expect government to solve all problems. Private landowners and communities can practice land ethics.

My participation in a local Native Plant Society and Forest Service field trips led to the discovery of Aldo and Estella's 1912 craftsman bungalow — "Mi Casita" — in Tres Piedras, New Mexico, built when Leopold was appointed supervisor of the Carson National Forest. Research revealed that the comprehensive Forest Service restoration plan specifically prohibited use of taxpayer dollars for ongoing maintenance. Since then, this has been beyond the strained budget of the Carson National Forest. After I spent several enjoyable years planting native shrubs, painting, catching invasive rodents and building a library with donor help, the district ranger asked me to organize a Friends of Mi Casita volunteer group. Leopold-inspired writers, students and the public have since experienced greater access and guidance in a formerly restricted setting — and this old doctor is grateful to receive Outstanding Partner recognition from the Forest Service.

Richard Rubin
Arroyo Seco, New Mexico

Casa Alitas staff and volunteers welcome a group of recently arrived immigrants in Tucson, Arizona, in 2019. **Roberto (Bear) Guerra**

REPORTAGE

‘This is about power’

Indigenous immigrants face unique threats under a second Trump administration.

BY ANNA V. SMITH

IN 2018, an Indigenous woman identified as C.M. and her 5-year-old son crossed the U.S.-Mexico border near San Luis, Arizona, seeking asylum. C.M., a Maya Mam native to Guatemala, told the border agents who apprehended her that she was fleeing life-threatening violence. But instead of asylum, the U.S. government — under secret policies enacted by the first Trump administration — forcibly separated the pair. C.M. was sent to two detention centers in Arizona and then Nevada while her son, who spoke only Mam, was taken to a facility in New York. After 76 days and threats of deportation they were reunited. Traumatized by the experience, C.M. and four other parents affected by the policy sued in 2019 and last July reached a settlement with the Biden administration.

The family separation policy ended in summer 2018, but Indigenous immigrants, asylum seekers and advocates are bracing for similar policies during Donald Trump’s second administration. Trump has promised to end birthright citizenship, restrict protections for refugees and asylum seekers and carry out mass deportations. Indigenous people from Central and South America are often forced to leave home because of persecution and conflicts over their land when governments and corporations covet it. When they seek asylum at the U.S.-Mexico border, however, they are caught in the teeth of the U.S. immigration system, which does not recognize their diverse identities, language needs or unique rights. “The ways in which the Trump administration truly impacted Indigenous peoples has not been adequately documented or quantified, but we believe that it was a large-scale human rights violation,” said Juanita Cabrera Lopez, who is Maya Mam and executive director of the International Mayan League, a D.C.-based Indigenous-led nonprofit.

Last fall, Trump nominated South Dakota Gov. Kristi Noem to lead the Department of Homeland Security. (At press time, she’d been confirmed in committee and awaited a full Senate vote.) Noem, who has a record of deeply anti-immigrant rhetoric, was banned from all nine reservations in South Dakota

after she claimed — without any evidence — that tribal nations were working with drug cartels, something the tribes vehemently deny. This antagonistic relationship with tribal nations could be a harbinger of what's to come; the leader of Homeland Security has broad authority to waive federal laws meant to protect tribal sites. The department's lack of adequate policies, interpretation and understanding of international Indigenous rights has already brought harm and even death to Indigenous immigrants and families.

"WE HAVE TO understand that this is about power," said Kaxh Mura'l, who is Maya Ixil, in an interview in Spanish with *High Country News*. Mura'l came to the U.S. fleeing persecution in Guatemala, where he was actively involved in protecting his community from an international mining company pursuing barite, a mineral used to extract oil and gas. Transnational corporations, hydropower companies and the Guatemalan government have committed human rights abuses against Indigenous communities there in order to acquire more land and resources. "(Guatemala's) system of justice is persecuting the community leaders, is persecuting the ones that are defending their territories," Mura'l said.

In 2019, Mura'l made the arduous journey from his ancestral lands and requested asylum at a bridge crossing connecting Juarez, Mexico, to El Paso, Texas. Under the first Trump administration's "Remain in Mexico" policy, however, he was forced to wait for two years there in unsafe conditions while his petition was reviewed, spending much of the COVID-19 pandemic in crowded detention facilities.

Mura'l's reasons for immigrating, which echo those of many other Indigenous people from Central and South America, stem from a long history of U.S. political intervention. The U.S. helped remove Guatemala's democratically elected president in 1954, for example, and backed military leaders who committed genocide against Indigenous Mayans. "The reason why many of us (are) living in the United States is because of the genocide that we experienced in Guatemala. And the U.S. contributed to that genocide economically, logistically, and that is what led to our forced removal," said Emil' Keme, who is Ki'che' Maya and a professor of English and Indigenous studies at Emory University. Indigenous people on both sides of the border can relate to the experience of displacement and the struggle for language preservation and cultural continuity, he said: "We're fighting for our right to exist, both in the North and the South."

Stories like C.M.'s and Mura'l's draw attention to an issue that is difficult to track owing to the lack of federal data; the U.S. tracks language use in its immigration court system but does not keep data on who identifies as Indigenous. The number of Indigenous language speakers is likely an undercount because officials assume that Central American immigrants use Spanish as their first language. (Some may speak Spanish, but as a second or third language.) Data from a study published in 2020 showed that, over a five-year period, 20% of adult immigrants at the Casas Alitas shelter in Tucson, Arizona, were Indigenous language speakers, primarily from Guatemala and Mexico. From 2017 to 2019, the shelter documented 29 unique Indigenous languages.

A lack of adequate policies and understanding of Indigenous rights has already brought harm and even death to Indigenous immigrants.

Organizations like the International Mayan League and National Congress of American Indians say that the lack of adequate Indigenous language services at the border violates multiple international laws and standards. They have urged Homeland Security to create an Indigenous language advisory committee and to consult with Indigenous people — including tribal nations in the Borderlands — on border issues. NCAI called out the family separation policy in 2018, stating that "the U.S. has a history of intentional and unjust imprisonment of Indigenous families and forced separation of Indigenous children," and that the policy "represents history repeating itself."

EFFORTS TO EXPAND language access or Indigenous consultation at the border did not gain traction under President Joe Biden and are unlikely to under Trump, whose last administration was accused of shirking tribal consultation.

The new administration will undoubtedly impact tribal communities that are bisected by the U.S.-Mexico border, said Danielle Oxendine Molliver (Lumbee), a community defense attorney at Legal Rights Center. There are dozens of tribal nations in the U.S. Borderlands, and many have related communities across the border. The Department of Homeland Security has the ability to waive federal laws meant to protect tribes' cultural, sacred and burial sites, which is exactly what it did to expedite building the border wall during Trump's previous term. Dozens of federal laws were waived in border states, including the Native American Graves Protection and Repatriation Act and the American Indian Religious Freedom Act. The Biden administration did the same in 2023 in Texas.

But these issues also go beyond any single administration, said Cabrera Lopez of the International Mayan League; many of them are structural and global. Any lasting change will require sustained solidarity. "Regardless of where we are, we have inherent rights as Indigenous peoples," Cabrera Lopez said. "Whether we're in the United States, whether we're in Guatemala, (or) we're crossing borders, we have the right to exist as an Indigenous person, and all the rights that stem from that."

Anna V. Smith is an associate editor of High Country News. *She writes and edits stories on tribal sovereignty and environmental justice for the Indigenous Affairs desk from Oregon.*

HCN *editorial fellow Natalia Mesa and CARU Language Services contributed Spanish translation, interpretation and fact checking for this piece.*

REPORTAGE

Risks of the road

Unhoused people are more likely to die from transportation-related injuries.

BY ERIN RODE

Note: This story was reported before the Palisades Fire destroyed part of the Malibu area and displaced many residents.

THE PACIFIC COAST HIGHWAY winds between the Pacific Ocean and the Santa Monica Mountains in Malibu, California, with restaurants, stores and multi-million-dollar homes dotting both sides of this 21-mile section within city limits. The six-lane road, though technically a highway, also serves as the Southern California town's main street. Pedestrians frequently cross the highway or walk along its shoulders, darting across in places without crosswalks or sidewalks.

Heavy traffic and lack of pedestrian infrastructure have made the Pacific Coast Highway — part of California's iconic State Route 1 — deadly for the beach community. Since 2010, 61 people, many of them pedestrians, have been killed along this stretch of the highway, and many more have been injured, especially along a 2-mile segment aptly known as "Dead Man's Curve." In 2023, four Pepperdine University students who had been walking on the shoulder were killed by a speeding driver. The tragedy helped draw attention to the dangerous road, but the fatalities didn't end there: Last October, a woman walking on the side of the road was killed in a collision between a motorcycle and a car near Malibu.

The woman who died that day was unhoused, part of an over-represented demographic among those killed along this highway. At least eight, and probably more, of the 61 people who died since 2010 were experiencing homelessness at the time. The Los Angeles Homeless Services Authority's most recent count indicated there were 69 unhoused people in Malibu, which has more than 10,000 residents and receives over 10 million annual visitors.

Some of the country's most car-dependent cities are in the Western U.S., while parts of the region also have the highest numbers of unhoused people. And unsheltered people are more exposed to traffic danger, since they spend more time outdoors and as pedestrians than the general public.

"I still don't have a really good sense of the magnitude of the problem, but I have a feeling that it probably is a serious problem," said Julia Griswold, director of the UC Berkeley Safe Transportation Research and Education Center, speaking about the issue Westwide. "There's been this pretty significant increase in pedestrian fatalities and serious injuries over the last 10 years or so."

The "alarmingly high number" of pedestrian fatalities on highways coincides with the growing number of unhoused people, many of whom live near or along freeways.

In Los Angeles County, where Malibu is located, unhoused people are 18.3 times more likely to die from transportation-related injuries than the total county population, with deaths occurring nearly every other day in 2021 and 2022. And the problem is not confined to California: In Multnomah County, Oregon, in 2022, people experiencing homelessness were 44.8 times more likely to die from a transportation-related injury than the county population overall.

"It could've been me," said a 32-year-old in Malibu who goes by the nickname Medusa, reflecting on a recent close call while crossing a street near the Pacific Coast Highway that connects the library to a public park. The street has a crosswalk but no stop sign, only a pedestrian yield sign. The car came within a foot or two of Medusa, who is currently unhoused, before screeching to a halt. "They were so shocked that they did not hit me. They had their mouths open," said Medusa.

Many unhoused people in Southern

A pedestrian makes his way through heavy rain along the Pacific Coast Highway in Malibu, California. **Genaro Molina / Los Angeles Times via Getty Images**

Top: Niamh Rolston's parents look on as friends and classmates leave messages on a memorial for her and the three other Pepperdine University students who were killed by a speeding driver on the Pacific Coast Highway last year. **Robert Gauthier / Los Angeles Times via Getty Images**

Below: Santa Monica Bay near Malibu, California, and traffic on the Pacific Coast Highway. **Joe Sohm / Visions of America / UCG/Universal Images Group via Getty Images**

California have similar stories.

"It seems to me that Californians have no type of respect for the homeless and for pedestrians, period," said Angela Noaker, 60, while waiting for a bus in Malibu on a recent Sunday. Noaker, who is unhoused, says she was hit by a car while walking in a crosswalk in Riverside, California, earlier this year.

"Almost by definition, if somebody is homeless, they're probably on the street and on the sidewalk a lot more than someone that has a home," said Michael Schneider, CEO of Streets for All, an advocacy group focused on bike and pedestrian safety in Los Angeles.

And yet, Schneider said, this hasn't been "a huge focus" in discussions about the active transportation movement in Southern California, which works to make streets safer for bicyclists and pedestrians. "I haven't heard any politician or really very few people have brought up the fact that one out of every 10 fatal crashes involves someone who is homeless."

When Capt. Jennifer Seetoo started as captain at the Malibu/Lost Hills Sheriff's Station in 2022, she noticed that nine pedestrians had been killed on the Pacific Coast

Highway in 2021.

"I thought, 'Wait a minute, nine deaths in one year? Why aren't the bells sounding off? Why aren't people jumping up and down, like, this is really bad, right?'" said Seetoo. "What I realized is that six of the deaths were from my homeless population, and it just struck me that nobody cares." And that was just in 2021; the LA County Sheriff's Department hasn't analyzed deaths from other years to determine how many of the fatalities involve the unhoused population.

Jimmy Gallardo, an outreach worker for The People Concern, a nonprofit that works with people experiencing homelessness in Malibu, estimates that in his two years on the job four to six of his clients have been killed or seriously injured by cars.

Many of the collisions in Malibu involve speeding; the speed limit along most of the Pacific Coast Highway's stretch in the area is 45 mph, but drivers frequently go much faster, hitting 60, 70 or 80 — even 100 mph. In addition to Malibu's tourist crowds, many commuters use the Pacific Coast Highway to avoid other routes that often have more traffic.

"People are just zooming past, and when I'm driving, I'm paying attention to all of this, and I see they're just speeding," said Gallardo, who spoke while driving a blue The People Concern minivan north on the highway. "And then I see where they're going, and they're going to, like, a little boutique store, so you're doing all this just to savagely park your car, putting people's safety in jeopardy just because you want to go shopping."

The city of Malibu declared a local emergency in November 2023, following the deaths of the four Pepperdine students, even though the state, not the city, regulates the Pacific Coast Highway. Seetoo is hopeful about a newly passed piece of legislation that will install speed cameras in high-risk areas along the highway. The California Highway Patrol has increased traffic enforcement, and the state's Department of Transportation is investing in lane separators, crosswalk striping, and more speed-limit and curve-warning signs. The Sheriff's Department and The People Concern have also distributed high-visibility gear to unhoused locals.

Several people experiencing homelessness in Malibu said they want to see more changes, including more stop signs and traffic lights, lower speed limits, more crosswalks near bus stops, and pedestrian bridges that would enable people to cross the road while avoiding the traffic below.

In San Jose, California, officials analyzed the city's most dangerous intersections after noticing that transportation-related deaths among the unhoused population more than tripled between 2018 and 2021. The city is now adding a mid-block pedestrian crossing that will connect two halves of an encampment split by a dangerous roadway, even though the pedestrian volume in the area isn't high enough to meet the typical threshold for such a crossing.

The Federal Highway Administration considers such changes in the built environment the second-most effective strategy for protecting unhoused community members from traffic collisions. The most effective option, however, is to increase access to housing, thereby reducing the number of unsheltered people along roadways. In Los Angeles County, two-thirds of traffic-related deaths among people experiencing homelessness happen between 9 p.m. and 9 a.m., suggesting that "providing nighttime shelter and permanent housing ... would help prevent these deaths," according to a report from the county's Department of Public Health.

Gallardo said that addressing the issue will also require more systemic changes to how housed drivers view unhoused pedestrians.

"When people are dehumanized ... it allows for violence to take place, or inconsideration of their right to life. And when you're driving in your supercar, you're in your own rich world, you don't see that person as an individual. You just see them as an inconvenience to your sight. You don't see the value in that human being who's going through something, which allows you to drive how you drive," he said.

Medusa agreed.

"They need to realize that there's a human walking," she said. "I'm a vessel, too."

Erin Rode is a freelance journalist based in Southern California, where she reports on the environment, climate change, housing and homelessness.

POEM

Captive

By D.A. Powell

The heart is a wild thing.
It lives in a cage made of ribs.

It cures its woes with pistachios.
Cappuccino workouts.
The heart has an appetite.
It wants to be fed. It wants
to be led to the slaughter.
But we don't want that
for our pet. We let it out.
But on a tether. Bird of prey.
It'd eat the rats out of Cinderella's
Castle if we let it. Of all
our parts, the most monitored,
the most untrusted. We have
a list of remedies and acts
of heroism. In case of attack.
The heart fights back.

WEB EXTRA Listen to D.A. Powell read his poem at **hcn.org/captive**

REPORTAGE

The looming end of coal

Department of Energy grants are helping eastern Utah prepare for power plant closures.

BY BROOKE LARSEN | PHOTOS BY LUNA ANNA ARCHEY

SEVERAL YEARS AGO, Jade Powell uttered the word "transition" to a county commissioner at a local government meeting in the heart of Utah's coalfields. The commissioner jumped out of his chair, grabbed Powell and shook him.

"He was jokeful," Powell said. "But you could tell he did not like that word."

Fast forward to last summer, in another meeting, and that same commissioner, now out of office, offhandedly used the word himself. Powell stopped him mid-sentence and asked, "Did you just say what I think you said?" The commissioner laughed. "I count that as one of our biggest wins," Powell told *High Country News*.

Powell, deputy director of Utah's Southeastern Regional Development Agency (SERDA), said that the moment was only possible thanks to years of trust building. The energy transition is a fraught subject in Carbon and Emery counties, where coal has been the economic backbone since the late 1800s. Halfway between Salt Lake City and Moab, Utah's Coal Country is hemmed by the cream-hued Book Cliffs and mountainous Wasatch Plateau, both of them rich with coal. The Price River weaves past abandoned mines, and trains chug through historic mining towns where 27 languages were once spoken and every year featured a Labor Day parade.

"We have invested in coal for the last 100 years, and that is our only resource," Powell said. "It's the majority of the jobs."

Carbon County, named for the rock that once made it prosperous, hasn't produced coal since 2020. Due to technological innovation and the proliferation of natural gas and, more recently, renewables, mining jobs have diminished since the '80s, while production has declined since the 2000s. In 2015, the Carbon Power Plant shuttered. A few years later, the county raised the municipal services tax by 700% to compensate for the loss of

tax revenue and mineral lease royalties. Four mines and two coal-fired power plants, Hunter and Huntington, remain in Emery County, immediately to the south. Electricity generation is critical to the area's economy. The plants and other utility infrastructure constitute nearly 60% of Emery County's property tax revenue. And the plants alone employ more than 400 people and support thousands of indirect jobs in mining, trucking, rail and equipment manufacturing.

"The coal industry doesn't look anywhere near like what it did back in the '80s, and so everything has changed," Lynn Sitterud, recently retired county commissioner, said.

Eventually, these plants will no longer burn coal, but the phase-out date is a moving target. In 2023, PacifiCorp, the plants' majority owner, set the decommissioning date for 2032. Then last spring, it extended Huntington's retirement to 2036 and Hunter's to 2042 after the 10th Circuit Court of Appeals halted EPA's rejection of Utah's ozone transport plan, effectively reducing restrictions on the state's coal-fired plants. Now, PacifiCorp's draft 2025 Integrated Resource Plan, which will be finalized on March 31, lists no retirement dates for the plants. The document states that without "an enforceable environmental compliance requirement," the coal-fired units can continue to operate for the entirety of the plan's two-decade study horizon.

David Eskelsen, PacifiCorp spokesperson, wrote in an email that PacifiCorp responds to changes in technologies and regulatory policies when updating its plan every two years.

Plant workers still worry about their job security, said Mike Kourianos, a shift supervisor at the Huntington Power Plant and the mayor of Price City, Carbon County's seat and the largest city in southeastern Utah with just over 8,000 residents. Kourianos has a crew of 12, the youngest just 26 years old.

"They're very worried about their future," he said, "and, you know, they love their communities."

Kourianos, who has worked at the plants for 47 years and witnessed the coal industry's decline firsthand, campaigned on planning for the shifting economy. He believes his constituents are open to the energy transition. "We have to figure out what is the next sustainable industry for our area," he said.

"Coal mining and power plants, you take them out of the mix, what is the next thing?"

SERDA, which provides community services and economic planning, is working with local officials to answer that question. There's hope that the area's industrial past can be the foundation for a vibrant future. Southeastern Utah is full of existing energy assets: Transmission lines and railways crisscross the desert, while existing water rights, highways and an airport make new development easier. And the local workforce takes pride in keeping people's lights on — a legacy passed down through generations.

Powell's family has chased economic opportunity in Coal Country for four generations. His dad hauls coal with the railroad; his uncles worked for the mines. But he knows those jobs may not last. His 2-year-old son has given him an extra reason to figure out the region's next chapter.

"Our area still wants to be an energy giant of the Intermountain West," Powell said.

In sunny Utah, solar seems an obvious choice; projects have proliferated in Carbon and Emery. But local and state leaders want to remain a baseload power producer, and solar panels generate electricity only when the sun is shining. As storage capacity improves, though, solar is increasingly meeting power demand. In 2023, coal accounted for 47% of Utah's electricity, while renewables, largely solar, accounted for 17%. This marks a dramatic shift from 2000, when 94% of the electricity Utah generated came from coal and only 3% was powered by renewables.

"We could go renewables for 80% of what we needed, almost without fault, almost everywhere in the country without a worry," Dennis Wamsted, analyst at the Institute for Energy Economics and Financial Analysis, said. "And then we can worry about the next 20%. The problem, from my perspective, is that the people who don't want to transition talk about the 20% first."

Today, industries like artificial intelligence are demanding more energy, and Utah's status as an electricity exporter is slipping away: In 2023, it used 98.6% of the electricity it generated. The state says it's in an "energy crisis," owing to the upcoming retirement of power plants, and leaders in Carbon and Emery worry about generating enough energy to attract new industry. Whether solar can fill the gap will depend on how quickly solar-plus-storage projects are deployed, as well as continued technological evolution.

Solar doesn't create enough long-term jobs, though, to replace those lost from shuttering power plants and mines. Recently, rPlus Energies broke ground on the Green River Energy Center, a 400-megawatt solar project with a 400-megawatt, four-hour battery storage system in Emery County. The company estimates it will create approximately 500 construction jobs but only 10-15 full-time positions once in operation. (Huntington Power Plant has a 1,000-megawatt capacity and employs 187 people.)

Over the past year, SERDA was awarded two federal grants to figure out its next step: Capacity Building for Repurposing Energy Assets and Communities Local Energy Action Program. Together, these grants included $150,000, as well as help from the National Renewable Energy Laboratory (NREL) and other national labs for the next year and a half. While the initial monetary awards were small, these grants serve as entryways

"We have to figure out what is the next sustainable industry for our area."

Hunter Power Plant looms in the background as a solar array is installed in Emery County, Utah *(facing)*.

The White Mesa uranium mill; Jade Powell and Geri Gamber, SERDA's deputy director and director; Mike Kourianos, a shift supervisor at Huntington Power Plant and the mayor of Price City.

(IRA) and Bipartisan Infrastructure Law. That funding's future is now uncertain, though; President Donald Trump has said he will "rescind all unspent funds" in the IRA, even though congressional districts that supported him in 2020 have received three times as much IRA investments as districts that favored Biden, according to the *Washington Post*.

Carbon and Emery are already seeing some benefits. Over the past year, SERDA created something the region needed: a plan. After mapping the area's existing energy assets and infrastructure, it sketched out four possible — and likely overlapping — paths forward: nuclear energy, carbon capture and storage, microgrids and redevelopment of existing coal infrastructure for new forms of electricity generation and other industries.

IN SEPTEMBER, Powell unveiled the details at Utah State University Eastern's Economic Summit in Price, playing a video that highlighted local leaders like John Houston, founder and chairman of Intermountain Electronics, a company that has supplied electrical equipment to the coal industry since 1985. In recent years, it has expanded its work to renewables, data centers and oil and gas and now offers paid internships for young people in partnership with USU Eastern.

"As our community faces the challenges of closing coal mines and power plants, we need to be ready to support the next generation," Houston said.

USU Eastern has a long list of trade and technical courses for young people and workers in need of new skills, from construction to welding. It also has a power plant technician program that trains across energy sectors, and it's currently rolling out a new energy engineering program.

SERDA and local leaders are also exploring nuclear power. The Department of Energy found that hundreds of the nation's coal plants could be converted to nuclear and employ even more people. It also found that while numerous coal workers will need additional education, there's a "significant overlap" in job types.

Currently, local leaders are watching the TerraPower Natrium demonstration project next to a shuttering coal plant in Kemmerer, Wyoming. If successful, that model may be replicated at the Hunter Power Plant.

Eskelsen, the PacifiCorp spokesperson, wrote in an email that if nuclear development is an option at Hunter, the utility "will seek to make such opportunities available" for current workers.

But nuclear reactors require billions of dollars to develop; just getting a license can cost over $50 million, and it can take over a decade to get a plant up and running.

If the costs can be figured out, Kourianos thinks nuclear power could be a "good, sustainable baseload energy" for the region. "Our communities are saying, 'Bring those nuclear facilities here,'" he said.

As part of the Communities Local Energy Action Program, NREL is providing technical assistance on a preliminary siting review for a nuclear plant and exploring the possibility of carbon capture and storage. Local leaders see carbon capture as a way to keep coal-fired power plants running while meeting emissions standards. "We can't just abandon it (coal) now, because nuclear is still going

to take 15 to 20 years to come along," Powell said.

BOTH CARBON CAPTURE and nuclear power are controversial, though.

While the few existing carbon capture projects claim they can capture 95% of emissions, Wamsted and his colleagues at the Institute for Energy Economics and Financial Analysis found that no project has consistently captured more than 80%, with many catching significantly less. Carbon capture can also increase the cost of operating coal plants.

"It hasn't been proven at scale, and it allows utilities to continue operating and building fossil fuel plants, which runs counter to what we need, which is a transition to renewable and clean resources," said Sophie Hayes, the Utah clean energy manager and senior attorney at Western Resource Advocates.

Hayes said that nuclear energy could be a valuable non-emitting baseload power source, but added, "I think it's really important that we not replicate the harms of the past."

Southeast Utah has a dark history from the uranium mining boom in the 1940s and '50s. The Navajo Nation has roughly 500 abandoned uranium mines with elevated radiation levels, and the tribe has banned uranium mining since 2005. Every year, the White Mesa Ute Mountain Ute community, three and a half hours south of the Hunter Power Plant, holds an annual walk to protest the White Mesa Mill, one of the nation's only active uranium mills.

"The nuclear industry has hurt Indigenous Peoples, and that hurt will continue," Malcolm Lehi, Ute Mountain Ute tribal council member, wrote in *The Salt Lake Tribune* last fall.

There's also the issue of waste. Nuclear power generation results in spent uranium fuel that remains toxic. Nuclear power plants currently store spent fuel rods on site but there's currently no permanent waste storage site in the U.S.

Geri Gamber, SERDA's director, said that uranium's pollution potential is a concern for her, but that for communities reliant on a declining coal industry, there are no easy answers. "I would hope it would always be safe," she said. "I don't know if I could work passionately on something that wasn't safe. But it is about keeping our heads above water here."

This time last year, as Powell told the Emery County Commission about the DOE grants, Commission Chair Keven Jensen berated Powell for using the phrase "transitioning away from coal."

"If we're going to send support letters (for grants) that are pushing an agenda, the Green New Deal agenda, that has me very concerned," Jensen said.

Powell then clarified that he said "shifting economies," noting that part of the federal grants were for research on carbon capture to keep the plants running. For Powell and Gamber, changing minds in Utah's coalfields is as challenging as any of the technical aspects of the energy transition.

"I think culture is one of the hardest things to change," Gamber said.

Brooke Larsen is a correspondent for High Country News *and a freelance journalist writing from Salt Lake City, Utah. Formerly, Brooke was the Virginia Spencer Davis Fellow for* HCN.

Reporting for this project was supported by the MIT Environmental Solutions Initiative Journalism Fellowship.

A mural by artist Kate Kilpatrick in Price City, Utah, depicts the history of the area and its coal-mining industry.

FACTS & FIGURES

The climate fight endures

Local governments in the West plan to continue the energy transition despite the Trump administration's opposition.

BY JONATHAN THOMPSON
DATA VISUALIZATION BY MARISSA GARCIA

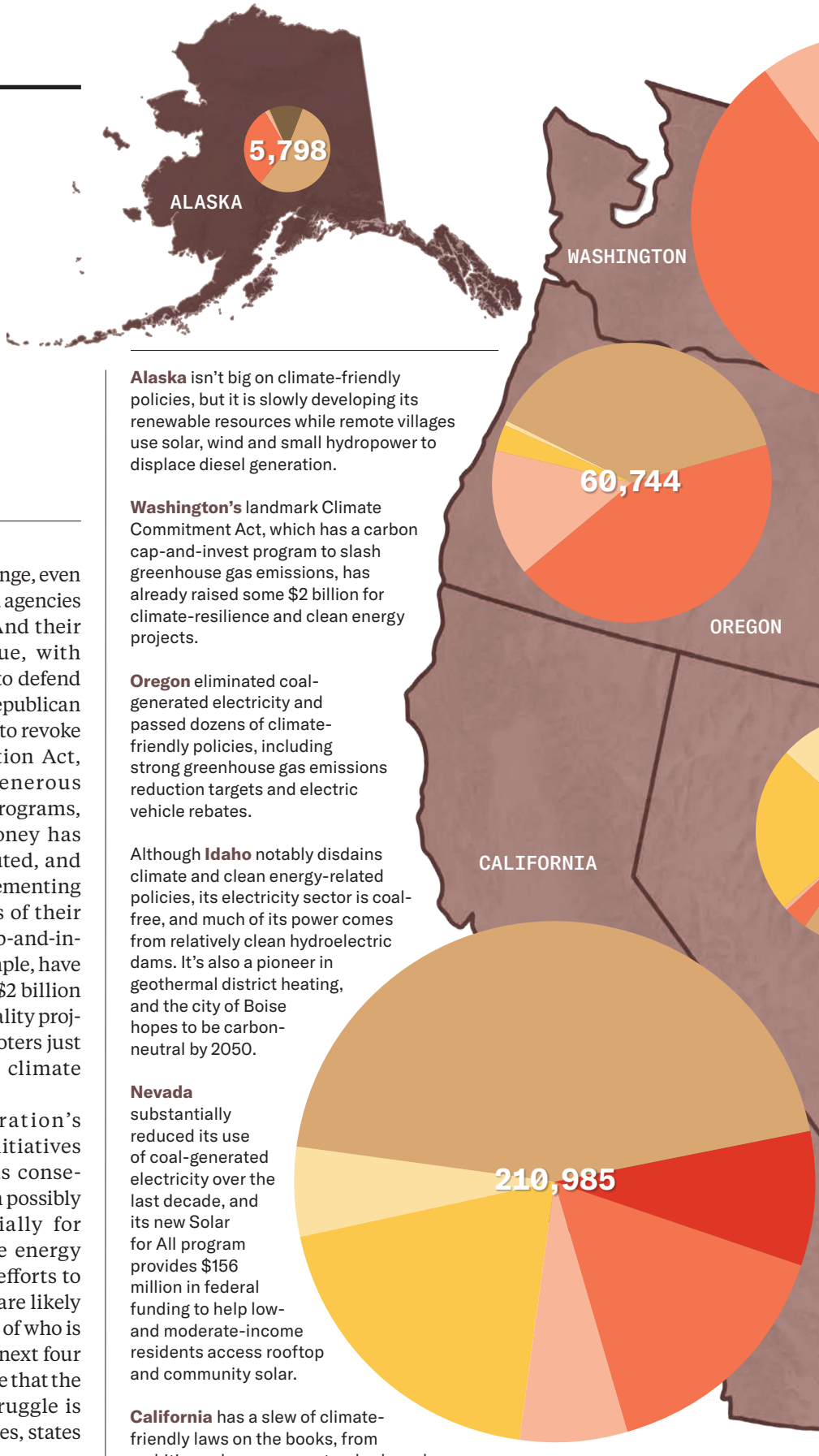
PRESIDENT DONALD TRUMP openly disdains any effort to fight what he calls the "big hoax" — climate change. During his first term, he eviscerated environmental regulations and yanked the U.S. out of the Paris climate agreement. On the campaign trail, he vowed to slash climate spending and increase domestic oil and gas production, even though it had already reached record-high levels under President Joe Biden. He despises wind power and dislikes electric vehicles — unless they're made by his new buddy, Elon Musk.

None of this bodes well for plans to ditch fossil fuels in order to slow climate change, or for communities and ecosystems facing global warming-exacerbated disaster, whether through extreme heat, destructive wildfires or devastating flooding. With a GOP-dominated Congress and a Supreme Court hostile to environmental protection, it's likely that most federal efforts to alleviate the planetary crisis will languish, at best, over the next four years.

Yet hope remains, because, for the past two decades, state and local governments — particularly in the Western U.S. — have taken the lead in combating climate change, even as national leaders and agencies have fallen behind. And their policies will continue, with the states gearing up to defend them if needed from Republican attacks. Trump wants to revoke the Inflation Reduction Act, which provided generous funding for climate programs, but much of that money has already been distributed, and many states are implementing funding mechanisms of their own. Washington's cap-and-invest auctions, for example, have generated more than $2 billion for climate and air-quality projects, and California voters just passed a $10 billion climate bond measure.

The administration's anti-environment initiatives will still have serious consequences, some of them possibly catastrophic, especially for public lands. But the energy transition and other efforts to fight global warming are likely to continue regardless of who is president. In fact, the next four years may demonstrate that the real power in this struggle is local, in towns, counties, states and individuals.

SOURCES: Energy Information Administration, Clean Energy States Alliance, U.S. Climate Alliance, RMI.



Alaska isn't big on climate-friendly policies, but it is slowly developing its renewable resources while remote villages use solar, wind and small hydropower to displace diesel generation.

Washington's landmark Climate Commitment Act, which has a carbon cap-and-invest program to slash greenhouse gas emissions, has already raised some $2 billion for climate-resilience and clean energy projects.

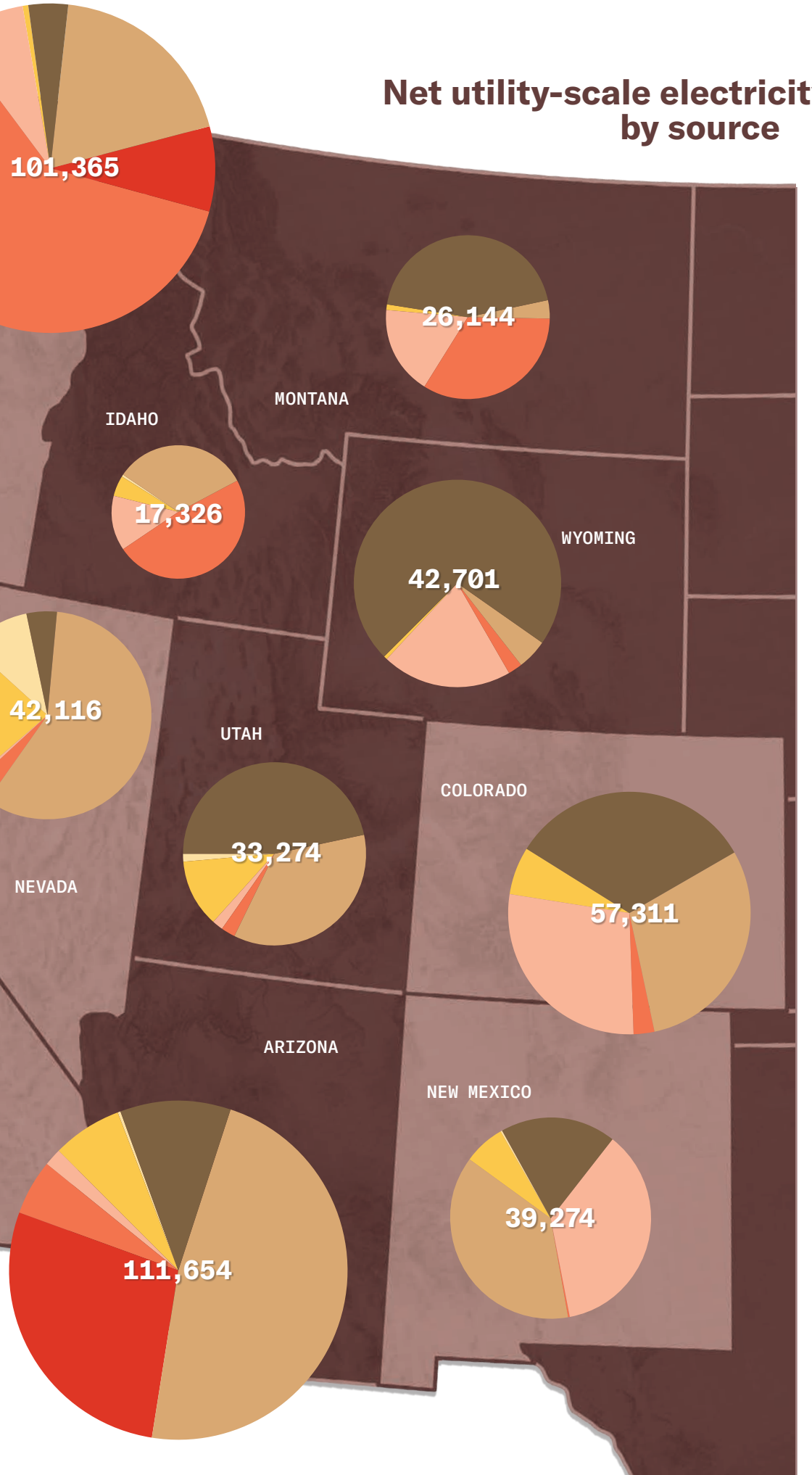
Oregon eliminated coal-generated electricity and passed dozens of climate-friendly policies, including strong greenhouse gas emissions reduction targets and electric vehicle rebates.

Although **Idaho** notably disdains climate and clean energy-related policies, its electricity sector is coal-free, and much of its power comes from relatively clean hydroelectric dams. It's also a pioneer in geothermal district heating, and the city of Boise hopes to be carbon-neutral by 2050.

Nevada substantially reduced its use of coal-generated electricity over the last decade, and its new Solar for All program provides $156 million in federal funding to help low- and moderate-income residents access rooftop and community solar.

California has a slew of climate-friendly laws on the books, from ambitious clean energy standards and a ban on hydraulic fracturing to phasing out gasoline-powered cars. In November, voters approved a $10 billion bond issue to fund climate-related and clean energy projects.

Net utility-scale electricity generation by source



Montana, a large coal producer, remains obstinately hostile toward climate action, but its Supreme Court recently ruled that the state's fossil fuel-friendly policies violate residents' constitutional right to a clean environment, a decision that may force it to change its ways.

Even though it's the nation's leading source of carbon-intensive coal, **Wyoming** is becoming a wind and solar energy hotspot: Gov. Mark Gordon, a semi-moderate Republican, pursues an all-of-the-above carbon-negative energy strategy that retains fossil fuels but uses carbon capture.

Utah lawmakers are famously fossil-fuel friendly. Nevertheless, the state is becoming a clean energy powerhouse, with advanced geothermal and solar comprising a growing share of its electricity consumption.

Colorado's Clean Heat Law requires natural gas utilities to reduce greenhouse gas emissions, and so Xcel Energy has launched an incentive program encouraging household electrification and efficiency upgrades. Recently more electric vehicles were sold in the state than in California.

Despite the Republican-dominated **Arizona** Legislature's determination to ignore global warming, developers and utilities are installing utility-scale solar and battery energy storage and phasing out coal-burning power.

New Mexico's Energy Transition Act, which requires utilities to start getting more of their power from carbon-free sources, provides financial assistance for communities affected by coal plant and mine closures.

Sources of electricity
Pie chart totals are shown in 1,000 megawatt-hours.

- Coal
- Natural gas
- Nuclear
- Conventional hydroelectric
- Wind
- Utility-scale solar
- Geothermal

Lighter-colored states are those with a goal of having 100% clean energy by 2050.

Researchers from the University of California, Santa Cruz and NOAA Fisheries search for black abalone along the Dangermond Preserve coastline in central California in October.

Back from the brink

Researchers have translocated black abalone in an effort to save the species.

BY NATALIA MESA
PHOTOS BY FLORENCE MIDDLETON

ON A COOL OCTOBER DAY, the wind whipped around Nathaniel Fletcher as he bear-crawled his way along a rocky reef in the Jack and Laura Dangermond Preserve, a protected area on California's central coast. He reached into cracks and peered into crevices with a flashlight, hoping to find an endangered marine snail whose shell recently has become California's state seashell: the black abalone.

Seven species of abalone were once abundant along the California coast. Now, climate change and overfishing have driven all seven to the edge of extinction. The black abalone's road to recovery is particularly challenging: Unlike other abalone species, researchers have not yet been able to grow it in captivity. But new efforts may give this iconic gastropod a fighting chance. A group of scientists have successfully translocated black abalone to Dangermond, boosting their numbers there, and Fletcher, a researcher at the University of California, Santa Cruz who leads the field project, is working with scientists from The Nature Conservancy and NOAA to monitor the animals as they settle into their new habitat.

Black abalone have a ridged navy-and-black shell encasing a fleshy body with a muscular foot that they use to sucker onto rocks. Mature abalone can be up to 8 inches long, longer than the average human hand.

But the black abalone's most striking feature is typically hidden — the underside of its shell, which is a pearlescent, psychedelic array of greens and pinks. The snails reside in rocky intertidal zones, where they eat dead kelp and serve as food for other species, including sea otters.

The shellfish also contribute to coastal Native communities' culture and cuisine. Eleanor Fishburn, chairwoman of the Barbareño Chumash Band of Indians, said that her ancestors ate smoked abalone meat and used their shells as tools, art and trade items. "As we move forward towards healing from the past, which includes the revitalization of cultural practices, the preservation of the black abalone is of vital importance to our natural environment," Fishburn said.

Over the last century, commercial overfishing and poaching have devastated abalone populations. Since the 1850s, they have been fished both commercially and recreationally, though restrictions increased as their numbers dwindled, and in 1996, the fisheries closed statewide. In the 1980s and '90s, a disease called withering syndrome, caused by the bacteria *Candidatus xenohaliotis*, further devastated abalone species in most of Southern California, with black abalone proving particularly susceptible. The pathogen attacks the mollusk's digestive tract, causing it to shrivel away. The disease spread as far north as Big Sur, decimating populations by 95% in some areas, and in 2009, officials placed black abalone on the federal endangered species list. Today, it is illegal to harvest them.

Yet pockets of black abalone survived, including on the Channel Islands, though it's not clear why. And now, these healthy

Clockwise from above: A researcher spots a black abalone with a green marker on its shell among a bed of mussels.

A tape measure is used to identify the plots where researchers translocated the black abalone.

Black abalone is characterized by a blackish-blue exterior (pictured) and an iridescent pink-and-green interior.

populations are serving as donors to supplement other sites.

The Dangermond Preserve, located on the elbow of the California coast, just north of Point Conception, was an ideal site for the translocation efforts. The preserve, acquired by The Nature Conservancy in 2017, covers more than 24,000 acres of land, including 8 miles of the coast, and has patches of excellent abalone habitat. It is also one of the rare stretches of coastline that is relatively free from human disturbance.

The researchers translocated abalone to the preserve in spring and fall of 2023. The job required delicate, painstaking effort: They had to carefully pry the snails off rocks using an abalone iron, a chisel-like metal tool. They placed the snails in mesh bags and into coolers, then transferred them into tanks so they could weigh, measure, photograph and tag them. Finally, they tucked the transplants into nooks and crannies in the rocky intertidal zone at Dangermond. This process can be traumatic and potentially lethal for the abalone, and the researchers weren't sure it would work. "If they're cut, they can bleed out or get a secondary infection," Fletcher said.

But so far, the translocated creatures have been more resilient than expected. Monthly surveys revealed that by October 2024, about two-thirds of the abalone in 10 monitoring plots in Dangermond remained. And some of the rest have likely moved nearby: A larger survey conducted in fall 2023 found that the number in the overall region had increased five-fold. The population has also stabilized in the original translocation spots — a good sign, Fletcher said.

Steve Whitaker, a marine ecologist at Channel Islands National Park who was not involved in the translocation efforts, called the project a first step to abalone recovery, but added that whether the populations continue to grow remains an open question. "In order to spawn, they need to be in close proximity," he said. "We have to just wait and see if we're seeing recruitment."

Fletcher and his team will continue to monitor the area every few months, hoping to find evidence that the abalone are reproducing. They'll look for baby abalone, which swim freely as tiny, wormlike larvae. The translocations showed that the idea is certainly feasible, and the researchers plan to attempt it in other locations.

"Someday it would be nice to be able to go out and harvest not just black abalone," Fishburn said, but other abalone species, too.

Natalia Mesa is an editorial fellow for High Country News *reporting on science, and environmental and social justice.*

Florence Middleton is a photojournalist based in Oakland, California. A two-time Pulitzer Center fellow, her work focuses on the environment, community, women and culture.

Scientists document the size and location of black abalone and their distance from other abalone, indicating their ability to reproduce.

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"HCN is essential to keeping up with the West, especially with local stories and the increased coverage by and about Indigenous communities."

— Gene Tison, Santa Fe, New Mexico

"Those of us particularly interested in natural resource conservation issues will be paying attention to how much recent accomplishments are reversed or at least threatened. We'll definitely be looking at HCN*'s emerging perspective!"*
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What are you reading?

In my work as executive director of *High Country News*, I get to travel around the West, visiting with the remarkable people who are the backbone of this institution — the readers and supporters who have kept *HCN* going for an amazing 55 years.

Lately, the conversation has often turned to our news consumption habits. Many people have told me that, after a year of obsessing over the election and the polls and all the bumps and tremors along the way, they're done. When I've asked what news they're reading (or watching or listening to) these days, more than one person has responded, "I'm not."

Even fellow journalists are downcast. At a recent gathering of Northwestern climate journalists, people groaned that we'd failed, as an industry, to educate the public about what was at stake in the election. If anything, this country seems to be barreling into oblivion with its foot planted firmly on the gas pedal.

Photo illustration by Marissa Garcia / HCN

We shared a few laughs (and tipped a few beers) but between the state of the world and the state of the news business, I'm not sure we left feeling any better about things.

I've done some soul-searching myself. I canceled a couple of national news subscriptions, quit social media and spent a recent Sunday morning scrubbing out my email inbox and taking myself off of national newsfeeds and marketing lists.

Rather than *The New York Times*, I'm reading my local paper and community news sites. I've traded national political pundits for local and regional thought leaders, my favorite public radio station and an arts blogger who always surprises me with her discoveries and insights.

Instead of doom-scrolling, I'm trying to seek out information that connects me to my community and helps me engage with the world. I don't always succeed, but when I do, I feel less like an observer and more like a participant.

As Nina McConigley wrote in her column in the January issue, "We must make connections. We must make our communities better. Our homes better. Our environment better. Our workplaces better. ... I do not want despair to turn into doing nothing, into just tolerating."

That, of course, is what *High Country News* is all about. Our mission is to "inform and inspire people to act." We're here to fight that feeling of hopelessness and empower people to make a difference.

So how are we doing? We'd love to hear your thoughts. And we're curious to hear about what you're reading (and watching and listening to) these days, and how you're connecting with your communities.

Send us a note at **dearfriends@hcn.org** or a real, pen-to-paper letter (I'm trying to do more of that this year, too). And don't hesitate to pick up the phone and call. As one longtime reader recently told a member of our customer service team, "We'll live through it, maybe. As long as I keep getting *HCN* so I can know what's going on."

— Greg Hanscom, executive director & publisher

Did you know?

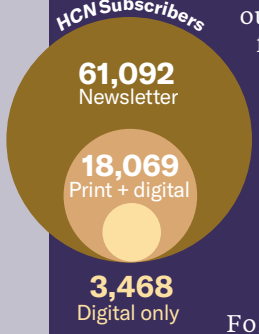
HCN's readers provide three-quarters of the revenue that powers our nonprofit journalism.

More than 4,000 readers made contributions last year, in addition to paying for a subscription.

The median donation was $50. The average was $560.

Our readers sponsor subscriptions for every state legislator in 12 Western states, and every member of Congress.

The HCNU classroom subscription program put our journalism in front of some 20,000 students.



Almost 100 other news outlets — ranging from *The Atlantic* and *The Salt Lake Tribune* to the *Bozeman Chronicle* and the *Kiowa County Press* — republished *HCN* stories at no charge.

For more information and a list of some of the top stories we published last year, check out our 2024 Annual Report at **hcn.org/support/annual-reports/**.

Thank you! We couldn't do it without you!

Draped in History

Artist Papay Solomon paints his fellow refugees in the layers of their past and present.

By Chandler Fritz
Paintings by Papay Solomon

The Dance to the Top of the Palm Tree, Bright Ntimba, Part I.
2021, oil on linen,
45 x 80 inches.

DAMN! Look at Me: Sekera Rasheri — Burundi. 2020, oil and pastel on Belgian linen, 33 x 47 inches.

PAPAY SOLOMON KNEW the mutability of borders even before he was born. Carried out of Liberia by his pregnant mother during that country's calamitous civil war, he spent the majority of his childhood in a refugee camp in nearby Guinea, where many Liberians spent the 1990s navigating between a fractured past and an uncertain future. It was in the camp that he first learned to paint, inspired by a baroque collection of donated illustrated children's Bibles and burned DVDs of American Christmas films. The material deficiencies made him unusually sensitive to the power of visual art: When you're allotted no more than a single piece of paper, it becomes startlingly clear that a picture can indeed be worth a thousand words. The challenges Solomon faced in the camp were horrible, he told me, but the older generation — his teachers — managed to preserve a sense of his cultural inheritance.

"There's this notion of raising a village that I really liked," he told me. "I wanted to be such a neighbor when I grew up and found a home."

In 2008, when Solomon turned 14, his family gained refugee status in Phoenix, Arizona, joining a wave of refugees arriving in the Southwestern U.S. Solomon enrolled at Central High School, one of the city's most diverse schools, and quickly found a home in its art department. When a counselor tried to force him to replace the art electives he wanted to take with language classes, he gave her a painting he made of a football player. Charmed, she dropped the requirement and even donated art supplies for his personal use. His former art teachers describe him as nothing short of a prodigy.

"He came in knowing things that other kids didn't, and I never found out how," Cianne Conklin, his freshman art teacher, told me. "He had the kind of talent that you come across only a few times in your career."

Solomon's quiet confidence and toothy grin made him popular with the other African immigrants in his class, many of whom were fellow asylum seekers. Some of these friends sat for the paintings in his first solo exhibition in 2020, "African for the First Time," a series of photorealist portraits of African refugees living in Arizona. Brooke Grucella, who curated the exhibition, which was held at the Joseph Gross Gallery in Tucson, told me that Solomon's work stood out for the intimacy of his relationship with his subjects. "The backgrounds of the sitters was really important for him," she said. "Knowing the sitters helped him bring a vibrancy to the paintings, like you could almost see the stories in the eyes, clothing, patterns and brushstrokes in the work."

His portraits drew from the realism of the early Northern Renaissance, particularly the paintings of Jan van Eyck, born in 1390, whose native Belgium became one of the primary colonial forces in the European scramble for control of Africa's resources during the late 19th and early 20th centuries. When tasked with making his own self-portrait, Solomon evoked the artist directly, swapping the famous red headwrap in van Eyck's self-portrait for his own gold-patterned lappa, a traditional West African garment. In all of his paintings, Solomon contrasts the patterns of African materials with a bright monochromatic backdrop, cleverly manufacturing settings in which the frustrating context of Western immigration falls away so that the sitters appear alone, confident and unassailable in their own timeless dignity.

"I wanted to create a situation where these people could be fixed at any time in history," he told me. "Where, if you were to wind back the wheels of time, it could still make sense. I wanted to find ways for the ancestors to be alive, because we are the results of their choices. Erasing the very fine lines between those who have passed and those who are now is interesting to me."

SOLOMON ARRIVED IN ARIZONA at a critical moment for Africans living in the Southwest. Over the last 30 years, Arizona's African refugee population has boomed, with yearly arrivals increasing from 3,000 to 40,000 since 1990. A quarter of them hail from West African countries like Sierra Leone, Nigeria, Ghana and Liberia, where internal armed conflicts have forced families to flee. Many put down roots in the state's capital: Since 2010, the total number of African-born immigrants living in Phoenix has nearly doubled. The valley has received over 1,200 refugees from Liberia alone since 2000, three-quarters of whom arrived between 2003 and 2006. When Solomon's family touched down at Sky Harbor in 2008, they were among 45 Liberian refugees who resettled in the Grand Canyon State that year.

Their initial reception by locals was tepid, if curious. In a state plagued by constant debates over immigration, it was not altogether clear where Black Africans fit within the long-standing Latino, white and tribal community divisions. Being Black in Arizona has always carried its own risk: Black residents make up less than 6% of the state's population, yet the FBI estimates that nearly 60% of hate crimes in the state target Black people. Research done by Adam Mahoney for *Capital B News* shows that Phoenix's Black neighborhoods suffer disproportionately from a lack of city infrastructure investment, which affects everything from property value and education quality to pregnancy care — and even access to shade on hot summer days. In South Phoenix, which is home to a large contingent of the city's Black population, 99% of homes suffer from the risk of extreme heat, compared with only 58% of homes in North Phoenix.

Despite this, a sense of solidarity within Phoenix's Black community was not guaranteed for African immigrants, especially with other children, and Solomon told me that he and his friends often felt like "underdogs" among their African American peers. The situation for Black Africans was especially perilous the year after Solomon arrived, when a local story about the rape of an 8-year-old Liberian girl by a group of Liberian boys made international headlines. *The Guardian* and CNN, among other media sources, reported that the girl's family rejected her afterwards, telling authorities that their daughter had brought them shame. (Abuse charges against the girl's parents were later dismissed.) Liberia's president was quick to criticize the family's response and even sent an emissary to visit the city, but the stereotypical notion that immigrants, even documented ones, do not fit into American society is quick to attach to newcomers in the Borderlands, and hard to remove.

The community that African immigrants found with each other, however, was far stronger than the media would have people believe. Friends and family often gathered at West African churches, such as Africa Faith Expressions, which served as a hub for celebrating Liberian holidays and honoring the achievements of community members. Solomon's own family was fortunate enough to have Liberian neighbors who helped them get settled in their new home, despite the fact that they, too, had just come to America, a mere month before Solomon did.

"They shared every lesson they'd learned in that month so that

Famata Foulkner (She Walks so We Can Run).
2022, oil on linen, 40 x40 inches.

When The Crown Loses Its Shine. 2022, oil on panel, 10 × 8 inches.

our lives could be just a little bit easier," Solomon told me. "Those friendships exist to this day. It's a communal experience for refugees here, not an individual one."

All of Solomon's sitters are, like himself, African refugees in Phoenix. His work situates them in a way that challenges his adopted home's past and opens a window into its future. The monochromatic backgrounds of his portraits, for example, strike at the artistic conscience of Arizona, which, like many other Western states, relies on a popular tradition of landscape portraiture, as seen in the photography of Ansel Adams or the paintings of Maynard Dixon, which maintain a romantic perception of the desert as pure and innocent, a blank canvas waiting to be filled.

In fact, Arizona's history is a rich but rather messy palimpsest, from the complex Hohokam canals that eventually determined Phoenix's grid system to the Norteño roots of the Borderlands' cuisine and music. Many of us who grew up in Phoenix's predominantly white suburbs possess a passive relation to the state's layered history, largely gleaned from the names of our streets, schools and neighborhoods. I grew up near Pima road, for example, was a student at Cochise and Cocopah, and lived in a tract development called La Cuesta. While the suburban fetish for tribal and ranchero culture has faded — the turquoise mostly traded in for crypto — these neighborhoods and street names are, in their own cockeyed way, proof that the desert was never as empty of humanity as the landscape artists would have us believe.

Papay Solomon in his studio in Phoenix. **David Blakeman**

The political geographer Natalie Koch, in her groundbreaking book *Arid Empire*, ties Arizona's artistic penchant for empty deserts to its colonial period as a testing ground for an imperial dream of "the desert as a blank slate to enact some grand vision rather than being someone else's home." Such idealized visions can inadvertently cause human displacement, either through military struggles like the Mexican-American War, or by simple resource mismanagement, as when international corporations suck up the groundwater supply in Arizona's own La Paz county.

Solomon's portraits flip that formula on its head: By entirely removing the landscape that inspired America's visions of a vast desert empire from his paintings' background, he refocuses our attention on the people who actually live here.

"Once you start painting a landscape, you contextualize these people in a specific place," he told me. "I wanted to create an environment where there was no environment, where (the sitters) were enough to hold attention, where you don't need to look beyond the faces involved to know what you need to know."

In his 2019 work, *If You Can't Remember, It's Not Important — Sureya Mardaadi, Somalia*, Solomon situates his sitter in front of a pale blue background that reminds one of the Phoenix sky on a hot summer day. He draws inspiration from Vermeer's *Girl with a Pearl Earring* in both the framing and composition of the portrait. Like Vermeer's subject, Solomon's sitter wears a matching headwrap and warm outer layer, although in place of a pearl earring she has a silver nose ring. In Solomon's painting, however, each item carries a distinctive heritage: the red shaash and yellow maro both belonged to Mardaadi's grandmother, and her nose piercing signifies a ritual from her paternal tribe. Both Solomon and Vermeer positioned their sitters so that they gaze over their shoulders, except that Solomon reverses Mardaadi's orientation; if you were to view the portraits side by side in the chronological order in which they were painted, it would appear as if Vermeer's model and Mardaadi were standing back-to-back, with Solomon's sitter oriented toward the future while Vermeer's faces the past.

Mardaadi's gaze seems to say: *This is what Arizona looks like today.* In this way, the exhibition's title, "African for the First Time," has an ironic relationship with both the subject and the audience. There's the shared experience of immigrants from places as far apart as Nigeria, Congo and Somalia discovering novel connections to each other in an American context that reduces their identity to simply "African," but there's also the experience of Arizona viewers who come to recognize — for the first time — the long-overlooked African layer on their state's cultural landscape.

Today, Solomon continues to create work that uses history to challenge his viewers. When I visited his studio recently, he showed me a series in process he calls "Tarp Baby," which includes several portraits of his teenage nephew. One shows the 14-year-old dressed in an old-fashioned Elizabethan ruff collar, a flowing plastic tarp and crisp Nike Air Force 1's. Each article of clothing carries figurative weight: The choking collar of European colonialism, the billowing polyethylene tarp from his refugee camp in Guinea, the all-white sneakers signifying the new racial dynamics in his adopted America. As Solomon pointed to each element, I noticed for the first time since I arrived that he had not taken his hands off a curious instrument, which looks like a short cane with a clotted knob top. I asked him what it was.

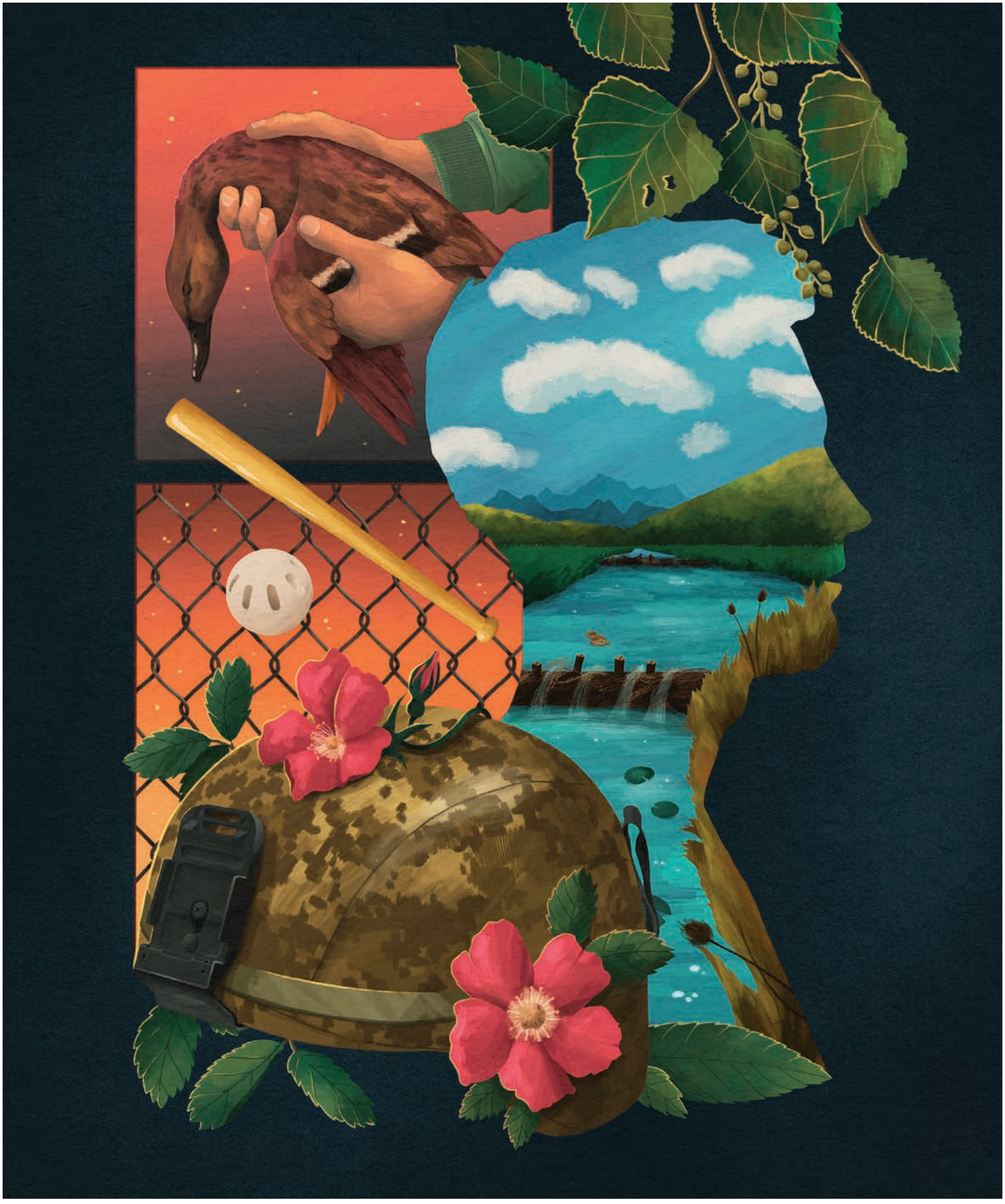
"It's a maulstick," he explained. "A Western instrument used for stability while you paint."

He showed me how it works, holding the bunched end against the canvas while resting his brush hand on the stick. Then he flashed a smile.

"Mine was constructed out of my mom's curtain rod and her old leather purse. I didn't have the money to buy one, you see, so I took it upon myself to create my own. Now I carry it with me wherever I go."

Chandler Fritz is a writer from Phoenix. He writes widely on his Substack, The Arizona Room.

There's Nothing Dreadful About This Crown, Portrait of Fiston Dimanche Ndarabu Buhendwa.
2019, oil on linen, 60 x 60 inches.



A Fight We Can Win

A Marine veteran transforms a legacy of violence into a campaign for restoration.

By Alexander Lemons | Illustrations by Michelle Urra

WE PLAYED WIFFLE BALL because it was hard and cheap. Plus, our backyard made the greatest Wiffle field west of the Mississippi. We had a flat pad of well-drained Kentucky bluegrass, the size of a racquetball court, right behind our house. The rest of the yard was a steep hillside where my parents built garden terraces using shattered concrete from the Denver landfill.

Throughout the summer of 1989, my little brother Mitch and I stood barefooted in the bluegrass, staring each other down. One July afternoon, he did his best Kevin Mitchell imitation, trying to lock his left leg straight the way the Giants outfielder did. I copycatted Dodgers pitcher Orel Hershiser and threw him a hanging curve that he slapped into the wood fence behind me. The ball bounced into one of our flower beds.

We had a dozen beds, and by midsummer they sprouted not only flowers but pumpkins, beets and bell peppers alongside 10 tomato varieties. The blooms signaled pollinators from around the neighborhood, and birds came from the nearby pond to feast on the bugs. As kids, we knew nothing about the adults in Moscow and Washington dragging the Cold War toward its end that year. Besides my dad calling my brother "Mikhail" because he had a Gorbachev-style Ukraine-shaped birthmark on his forehead, we had no clue that we were Cold War babies. But we knew our insects and weeds. We knew when and how much to water.

I walked into the flower bed and picked up the ball. My brother had fast eyes and fast hands, but he didn't like inside pitches. My strategy decided, I marched back to the imaginary mound, only to trip over the aluminum edging separating turf from soil and open a 4-inch gash in my right foot. I sat down and screamed.

"Alex!" My brother ran over, yellow bat in hand. He took a quick open-mouthed look at the blood and ran into the house to grab my dad. Mitch pulled him onto the grass and he stood over me, concerned and pale. He ran for a stack of pillows and dish towels, jamming the pillows under my bloody foot to elevate the wound. And then he went back inside.

My brother, who was 5, sat down beside me and took over the emergency.

"It's OK, Alex," he said. I cried and said nothing, staring at the slash. Mitch smiled at me as he pressed a dish towel over the wound and tied another over my foot, checking the wrap for snugness. My mom, the neighborhood Cub Scout leader, had taught us how to bandage things. Then my brother got me to my 9-year-old feet and made his body a crutch as we hobbled indoors to get out of the sun. My dad, no fan of blood, had passed out on his bed upstairs. So we waited on the glazed brick floor just inside the front door until my mom got back from the dollar movies. Mitch sat next to me and compressed the wound with his hands.

He still had the bat.

I GOT INTO the environmental restoration business by accident. After military tours at sea and in Iraq as a Marine grunt and sniper, I demobilized back to Salt Lake City, where my family had relocated in the early 90s. Lost but somehow alive, I moved in with my little brother and tried using civilian words and wearing sideburns again. Mitch hadn't been to an overseas war, but he was at war with himself. And in the spring of 2011, like other combat vets I knew, he took his life.

The summer after his death, I didn't need a job. What I needed was an escape.

Recalling that birding had always offered that, I contacted Great Salt Lake Audubon to ask about bird-banding or monitoring gigs. I learned that the chapter was restoring habitat for migratory birds on 120 acres along a stretch of the Jordan River in the suburbs of Salt Lake City, property jointly owned by Audubon, the Utah Reclamation and Conservation Commission, and other public and private entities. The project needed any help it could get.

Days later, I parked on a bluff at the south end of the property, where new asphalt and curbs crisscrossed dirt plots marked with flags for new homes. Keith Johnson, the manager of the Jordan River Migratory Bird Reserve (JRMBR), waited for me by the open sliding door of his brown VW Westfalia. Keith, as I'd soon learn, was retired, and working on the reserve kept him active while allowing him to meet his personal commitment to public service. His van was the unofficial reserve work truck, and tools and plants were spread across its floor. He gave me a shovel and a tray of Fremont cottonwoods and Woods' roses, then sent me off alone into an abandoned pasture near Willow Creek, a stream which melted off the granite giant known as Lone Peak and flowed along the east side of the property.

The livestock were long gone, and the ex-pasture held nothing but reed canary grass and mean-looking Canada thistles. As I cleared square yards of grass and weeds and dug holes for my plants, I felt calm for the first time in nearly three months. Since my brother's suicide, my parents and I hadn't known what to do other than cry or scream at the mountains from our backyard deck. The questions and comments we got sounded like those I still got about my war; no one really wanted to hear how we felt or what we knew. Some days, I didn't want to hear how I felt or what I knew.

The willows and beetles didn't ask me anything. Male lazuli buntings sang for sex and the water in the creek ripped and burped its way through the hydrology cycle and out of my life. The work was anti-inflammatory. The sight of orioles and the smell of mud activated my senses and cooled my over-fired brain. After an hour of chopping and sweating, I was tired, yet pleased with my progress. Keith, wearing a backpack oxygen tank and a nasal cannula fixed over his moustache, brought me an orange bucket of water and some cloth to suffocate any weeds around the plantings. Then he went back to the VW for more plants.

You may never see the JRMBR, but its story is like that of almost any slice of land in the country. In Midvale, Utah, just a few miles north of the riverbank where I dug holes, U.S. Smelting, Refining and Mining once ran five lead and copper smelters and an ore milling facility that produced copper, lead and zinc. Like Utah's steel and canning industries, the smelters and milling facility parlayed the state's geological resources into lucrative products and well-paying jobs.

The good times couldn't last. Air pollution from the smelters blighted crops in the Salt Lake Valley, and in 1958, after decades of complaints from farmers, U.S. Smelting, Refining and Mining closed the last of its five smelters in Midvale. The company continued to operate the milling facility, but by 1965, like other corporations in Utah and throughout the country, it was subject to a statutory income tax rate of 48% that funded Cold War domestic programs and the nation's $54 billion defense budget. Growing environmental concerns and foreign competition worsened the arithmetic, and in 1971 the facility shut down.

Throughout the state, mines, steel mills and canneries met similar fates. The canning industry, which had once provided almost 30% of the state's manufacturing jobs, employed less than 11% of Utahns in 1988. By 2019, the U.S. was the largest steel importer in the world, and Utahns were trucking in the alloy that our modern lives demanded. Economic inequality, which in 1968 had dropped to its lowest level in U.S. history, exploded.

In Midvale, U.S. Smelting, Refining and Mining left secrets in the earth. Throughout its golden age, its operations flushed lead and zinc into the Jordan River's floodplain and stacked tailings containing mercury and cadmium in the floodplain, too, creating piles that reached 60 feet deep. The smelters dumped massive amounts of slag throughout the floodplain's wetlands. Birds were found dead in the tailings ponds; native fish struggled. Humans got sick, too. Midvale residents collected tailings and used them in their garden beds and sandboxes until 1982, when the Utah Department of Environmental Quality took samples of the tailings and found high levels of lead. More testing revealed the groundwater in the neighborhoods around the smelter and mill was poisoned with arsenic.

In the early 1990s, the U.S. Environmental Protection Agency designated the smelters and the milling facility as Superfund sites. Sharon Steel, which had purchased the facility before filing for bankruptcy in the late 1980s, agreed in a court settlement to pay at least $22 million in cleanup costs. In the early 1990s, the state of Utah and U.S. Department of the Interior were awarded $2.3 million in federal funds to compensate for "injury to natural resources" by Sharon Steel. This money, along with additional state and private funds, supported the Jordan River reserve and other restoration projects along the river.

The water in the Jordan is governed by the laws of physics, yet it seems to have a will of its own. Centuries ago, the river meandered through tall peachleaf willows and beaver dams as wolves and bighorn sheep crisscrossed the valley. My Mormon ancestors, fleeing persecution both real and imagined, saw the Northwestern Shoshone and other tribes enjoying good grass and soil in the river's floodplain and grabbed it for themselves. They built canals for crops and livestock; they killed the beavers and tore out their dams. As industrious as they were, though, they couldn't use all the water in the river's 3,800-square-mile drainage, and when the mountain snow melted in the spring, the Jordan roared. In 1896 and 1909, the river flooded parts of Salt Lake City.

Over the next 50 years, Utahns built dams across the Jordan and added surplus canals that sped runoff away from the city and into the Great Salt Lake. We uncurled its oxbows to permit barge travel. Later, we replaced small family farms with suburbs, offices and factories, so that snow and rain fell on pavement and slid into the river instead of soaking into the ground. As stormwater runoff moved faster and dirtier into the river, more and higher walls of rock and cement were needed to restrain the river and protect the cities of the Salt Lake Valley.

A straightened river is a drag racer; it digs into its bed, disconnects from the spongy floodplain on its banks, and crashes into whatever it wants. By the middle of the 20th century, multiple stretches of the Jordan had carved channels 6 to 10 feet below the original floodplain, drying up the wetlands and riparian forests where migrating birds rested

during their long journeys. In 1983, when record snowfall was followed by a May hot streak, the Jordan tore down its narrow lane, likely blasting through the polluted soil and industrial waste in Midvale.

Climate change reminds me of roadside bombs in Iraq. No matter how hard you worked to defend yourself, you eventually got hit. Thirty years ago, Mitch and I could expect to build snow forts from December through March; now, years of drought and 50 degree Fahrenheit January days might be followed by a year with 700 inches of white fluff in the mountains that lasts until a heat wave strikes in June. The old boundaries of flooding season are gone.

The migratory bird reserve was restored with climate change in mind. We couldn't alter the direction of the river without heavy equipment and permits, but we could slow down and spread out the flows that entered it. Keith, his underpaid AmeriCorps technician Tyler Murdock, and my former college biology teacher Ty Harrison, whose family owned five acres within the reserve, worked with engineers to establish a new, snakelike path for Willow Creek. Natural beaver dams and their ponds further stalled the flow. As the creek widened, it watered the dried-out native chokecherries and black hawthorns in its floodplain, allowing them to pull in excess carbon.

Most of what I did at the reserve for the rest of that summer and fall was farm work — opening irrigation heads, rebuilding fences, digging, planting. I didn't understand the story of the river and how we had changed it. I only knew I needed the escape it provided.

The trouble was that my health wasn't good enough to sustain more than 10 hours of volunteer work a week. I didn't realize it yet, but I'd spent seven years soaking up poisons like those left in Midvale. I absorbed lead from firing all types of Cold War weapons as I trained on some of our 750 bases worldwide, sponged up herbicides from Iraqi Anbar rice and Iranian cucumbers, and inhaled black smoke from burn pits on forward operating bases. Maybe I'd been gardening with tailings, too.

EVERY TIME MY GAL AND I drive past the northern edge of Swaner Preserve in Park City, I get excited. Pointing at native plants sandwiched along a string of beaver dam analogs — structures of logs and branches that mimic the effects of real beaver dams — along a tributary of the Weber River, I lean toward her window and yell, "I built that! I fucking built that!"

"Jesus, why are you yelling?" she'll ask.

I'm yelling at America.

I worked at Swaner from 2020 to 2023 as a restoration technician, paid an average of $11 per hour. After I was diagnosed with heavy metals poisoning in 2012, I spent years detoxing, and by 2017 felt well enough to wander back to school on the GI Bill and earn an associate degree in the environmental restoration trade. The classroom training helped, up to a point, though I made sure to keep my boots muddy. I knew from all the generals and ambassadors I'd spent a year cussing about during the Surge that too much time in the office isolated me from the

reality on the ground.

The beaver dam analog system I always admire from my seat was a team effort, but I remember my role. We walked East Canyon Creek in the fall and performed a Rapid Stream-Riparian Assessment, a low-tech protocol that any high-school grad can use to evaluate a stream's water quality, aquatic habitat, plants and hydrogeomorphology — the effects of the constant and constantly shifting collision of water and earth. After the assessment, I picked dam sites, looking for bends where a dam could slow the creek and willow stands that would provide beaver food.

Over the winter, we begged for money from public and private sources. In late summer, when water levels were low enough not to drown us and we didn't have to worry about frightening young birds in nests or crushing fish spawns, we waded back into the creek. We pounded rows of untreated logs into the streambed. Then we recruited volunteers to throw on waders and help build the dams with recycled Christmas trees, rocks and mud. Finally, we fired up a series of experiments designed to measure changes in the system. We even began to consider using the beaver ponds as firebreaks for prescribed burns.

This is applied science — a combination of physical and brain labor.

We jumpstarted a natural process, and I can measure its positive effects not only with hard data but with my own senses. Behind the dams, the water releases leaves, dirt and pebbles that protect caddisfly larvae or create fish-spawning beds. When water spreads across the floodplain and through the soil, it encourages the growth of grasses, flowers, shrubs and trees, which in turn attract bugs that feed amphibians, birds and bats.

Overhead, taller trees and willows give birds safe places to nest, and the shade lowers the temperature of the too-hot creek. Cooler water increases the dissolved oxygen that stoneflies and fish like Bonneville cutthroat trout need to breathe, and that creates more places for me to cast my fly lines. When ospreys catch those trout, the nitrogen in their excrement and the picked-over fish carcasses seeps into the soil, where it is taken up by plants that can't make that essential nutrient on their own. And when a beaver family exhausts its food and packs up for new territory, the dams slowly collapse. The pungent sediment they trap is stuffed with seeds, and once exposed, it sprouts a meadow of fresh grasses and shrubs where whitetail deer and elk can chomp away and maybe, one day, end up in your freezer.

East Canyon Creek is on its way back to health, but the Great Salt Lake is still drying up, and millions of streams across the country are still degraded by industrial pollution and bad land management. If we want to restore the natural world our lives depend on — the webs of relationships in streams and coral reefs and chaparral shrublands — we'll need to put an army to work for the rest of the century.

For working people, especially those who were born or came of age after 9/11, pursuing the American Dream means piling side hustle upon side hustle: betting on crypto, donating plasma, flipping Power Ranger action figures on eBay. In the 1990s, after the end of the Cold War had supposedly signaled the "end of history," young Americans were advised to load up on student loans to escape the fate of laid-off industrial workers like those once employed by Sharon Steel. But history kept breathing. As the cost of living rose and interest on personal debt accumulated, college degrees — and even trade degrees like mine — offered less protection against the economic crashes of 2001, 2008 and 2020. For some of my friends, enlistment was the only surefire way out.

If we want to restore the natural world our lives depend on we'll need to put an army to work for the rest of the century.

Rather than tell anyone to get a third job or tout fantasies of a multiplanetary future, I keep turning the clock back. When we collected showy milkweed or rabbitbrush seeds at Swaner, I often imagined a Shoshone or Ute man around my age, maybe a combat vet like me, doing the same thing on the same spot in the 1400s. The more time I spent at a restoration site, the better I understood its ecology. I began imitating crane calls instead of baseball players. Park City locals who stopped by the preserve started calling me "the beaver guy." I imagined that back in the day, there was another "beaver guy," a member of one of the bands working in this part of the Wasatch Range.

As I entered my last year on the preserve, I finally understood that the stories about coyotes as trickster figures are not only spiritual warnings but original publications in ecology, and they dovetail with modern science. I wouldn't trust a coyote around the school kids we taught — a predator is a predator — but I always trust coyotes to thin herds and clean up dead things, freeing us from unnecessary work.

I also understood that the free market, at least in its current form, can't solve the environmental problems industry creates. If it could, the mess in Midvale would have been cleaned up a half-century ago. The nonprofit sector, where I worked and volunteered over the past decade, can't solve these problems either, not at the scale required. Federal training programs like AmeriCorps and Job Corps are a good start, but their pay is abysmal, and their restoration work is piecemeal.

If I had my way, I'd blow the dust off the New Deal era's Civilian Conservation Corps and put at least 10 million citizens through the kind of applied sciences program I went through. I'd rent out abandoned malls for wintertime classes and pay students $50 an hour to train hard and fast. I'd get them out in the field in spring, summer and fall, leaving their winters free to care for ailing grandparents, acquire advanced training, or assist with paperwork and science publications the way my Swaner teammates and I did. I imagine enlistments of two to four years with the contract wiping out any student debt, after which enlistees could start their own small restoration companies or manage public preserves in worker cooperatives.

Conservation work needs drone pilots, truck-and-trailer drivers, coding geeks and small engine mechanics. We need ex-platoon sergeants and managers from the busiest fast-food joints, people who can organize large groups and chew asses. We need digital mappers, chainsaw ninjas, and teachers who can translate academic jargon. And we need steel to make shovels and stream gauges and post pounders. Instead of shipping our

jobs — and our restoration problems — overseas, we should use the lessons of places like Midvale to support responsible industrial practices at home.

Ultimately, we need leaders willing to gamble on creative solutions. Millions of beaver-dam analogs and the wet firebreaks they create could help us reintroduce fire to forests and sagebrush without destroying towns and infrastructure. Native prairie grasses, which scientists estimate contain about a third of all carbon stored on land, could be planted in alleyways from the Dakotas to Texas. With land bridges across railroads and highways, we could add bison to the cycle, letting them fertilize these revived bits of the Great Plains and spread their seeds farther. The coal miners who kept our lights on for the last century could use their talents to restore the mountains and streams of Appalachia and Carbon County, Utah.

These are daydreams, but they're not as far-fetched as they might sound. Between 1933 and 1942, the Civilian Conservation Corps put 3 million Americans to work in a "tree army" that planted more than three billion trees. When my grandfather returned from the Korean War, he and my grandmother applied to a homesteading program for veterans and their families. Each of the more than 3000 families chosen by lottery got up to 160 acres of land in one of six Western states, along with water, low-interest tractor and home loans, and free education in the latest agricultural science. In southern Idaho's Minidoka County, where my grandparents farmed spuds and beets, most of the veterans in the program were white, but a handful were Nisei and Latino. Like all government homesteading programs, it had colonial roots; it also brought my grandparents out of poverty — and enabled my parents to become the first generation in the family to attend college and buy the house where my brother and I hit Wiffle balls every summer.

How will we pay for a modern restoration army? Reversing the tax cuts and subsidies enjoyed by corporations and the wealthy would be a good starting point. We can also admit that the Cold War I grew up on and the war I fought in Iraq were expressions of a reckless foreign policy that has hollowed out American industry and the opportunities it offered. We'll always need a military, but we don't need a global empire of bases manned by a large standing army. We need citizen marines and citizen soldiers restrained by modest objectives, not sent to chase never-ending blowback abroad. Our best long-term defense against threats of all kinds is an environment where the fish are safe to eat, the plants provide medicine, and the people who tend the land are fully employed.

WHEN MY MOM OPENED the door and looked at us, I was awake on the brick floor, and my brother was watching over me with his hands squeezing the wound. She checked the bandage approvingly, then woke up my dad. I left the emergency room with 16 stitches, and when my foot healed in the fall, we resumed our games under the garden terraces.

Our best long-term defense against threats of all kinds is an environment where the fish are safe to eat, the plants provide medicine, and the people who tend the land are fully employed.

I still have a Wiffle bat and a bucket of balls. I keep them in my room and take hacks off my tee or slam imaginary pitches at my brother, visiting the part of my mind where a healthy scar persists. I don't have anyone to play with yet, but I won't give up playing.

Great Salt Lake Audubon released its part ownership of the JRMBR in the mid-2010s. Keith Johnson died. Ty Harrison died. But the parcel is still there, still alive and trying.

One afternoon this past November, I jumped the fence at the reserve, ignoring the Keep Out signs, looking for the feeling I'd had there in 2011. The Jordan River flooded in 2023 and 2024 after a serious drought ended with off-the-charts snowpack. Trails collapsed, groundwater rose and basements flooded. Yet the reserve did what it was designed to do, absorbing some of the river and slowing down Willow Creek.

The cottonwoods we planted had survived voles and disease and were more than 30 feet high, the bird nests in their branches awaiting their spring tenants. Beavers had stacked their winter caches of willows in the floodplain ponds. Our Woods' roses had grown tall and thick and were weighed down with red-brown fruits. Meanwhile, the reed canary grass and phragmites were out of control. My trained senses told me that there was still so much potential and work to be done.

I'm not my job and neither are you, but what I built on the Jordan River and elsewhere helped me rebuild myself. The process of cleaning up a stream or an acre of sagebrush mirrored the process of cleaning up my body and mind. This is why I keep working in conservation, despite the poor pay and the inadequacy of the effort. It's also why I'm optimistic. This is a fight against ourselves, and unlike our misadventure in Iraq or the self-devouring Cold War before it, it's one we can win. When I doubt that, I think of the last "tree army" — and remember that I turned platoons of 18- to 22-year-olds from all walks of life into snipers and gave them more responsibility than most 50-year-olds have ever known.

Standing on the reed canary grass, surrounded by a budding cottonwood forest and picking the last golden currants of the season, I could feel that my mind and body were stronger than they were on my first day at the reserve. I walked back to my truck, electrified. As I studied the first snows on the mountains, chickadees buzzed past me, disappearing into the willow forest whose cuttings once covered the floor of Keith's VW.

I jumped back over the fence, whispering in my mind: "I built that. I fucking built that."

Alexander Lemons is the co-author, with Joshua Howe, of Warbody: A Marine Sniper and the Hidden Violence of Modern Warfare, *which will be published by W.W. Norton in March.*

Michelle Urra is a freelance illustrator based in Germany. Through her work, she likes to make sense of the world and explore literature, music, film, as well as scientific and cultural themes.

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ESSAY

Lit up

A wildfire journalist steps behind the drip torch.

BY KYLIE MOHR

SWEAT DRIPPED DOWN my spine as I hefted a heavy drip torch with gloved hands. Everything was hot — the sun filtering through the ponderosa pines, the fire at my feet, the long-sleeved shirt and long pants I wore to protect myself from burns. I dipped the tip of the torch downward, splashing a few drops of flaming fuel onto bone-dry grass and snowberry bushes. Flames sprang up immediately, their hot tendrils nibbling at the brush under my boots. I slowly walked down a small rise, slinging more fuel and counting paces under my breath to evenly space the drops. *One, two, three, four.* Light the earth on fire. *One, two, three, four.* Do it again.

I paused to catch my breath at the bottom of the hill, panting from exertion but trying to appear composed in front of the more seasoned fire crew I was working alongside. I'd never lit more than a few campfire logs on fire, while some members of this crew fought wildfires all summer long. My fire backpack (40 or so pounds), the drip torch full of fuel (16 pounds more) and the sense of responsibility (incalculable) weighed heavily on me. The day before, I jumped out of the way when fire touched my boots for the first time, and I'd shakily dropped fuel where I shouldn't have. Today, it was my job to light things with precision. I needed to get it right.

Too little fuel, and the woody debris under my feet wouldn't burn evenly, leaving kindling for future wildfires. Too much, and the possibilities were endless: killing trees we wanted to save, making my team breathe unnecessary smoke as they monitored the perimeter. Worse still, the fire could escape its boundaries and cross over onto a neighbor's land.

Kyle Lapham, certified burner program manager at the Washington Department of Natural Resources, caught up with me and broke my intense concentration on all the what-ifs. His job that day, among others, was making sure I didn't douse myself with fuel, trip and fall into the flames, or forget to drink enough water. After years of fighting wildfires and now helping to lead prescribed burns, he handled the drip torch with ease and saw the sweaty task ahead as a beautiful one.

"I think of it like a paintbrush," Lapham told me as we walked back uphill to ignite another strip of brush. "You can paint big strokes or small stipples." Treating the surrounding landscape as a canvas, I decided to mimic a painter. Tiny dots of fire all merged into one flaming front, creating a pointillist work in the wild.

As a journalist covering wildfire, I often catch myself focusing on fire's destructiveness. I know better; I understand that while fire can destroy communities and kill people, it's also natural, healing, regenerative and essential for both people and landscapes. Still, my mind bounces among images of hikers running for their lives, skyrocketing insurance rates, and the ever-growing list of ways that smoke is bad for humans. I wasn't sure

Small patches of fire slowly merge during a prescribed burn in northeastern Washington. **Kara Karboski / Washington Resource Conservation & Development**

how I'd feel being so close to the flames, wielding the power of a full canister of fuel.

Three and a half hours and 10 or so acres later, cheeks rosy from being so close to the flames, I leaned against a pine tree and inhaled chalky electrolyte tablets straight from the bottle. Every nerve ending in my body sang with adrenaline. For a moment, I forgot my aching shoulders and the sweat beaded on my upper lip. Fascination, not fear, washed over me. I was done igniting for the day, but I've been dreaming of ignitions ever since.

FIRE IS A NATURAL PART of Western ecosystems, and many forest species crave its disturbance and the resulting regeneration. But starting in the mid-to-late 1800s, the federal government banished Indigenous fire practices and, for over a century, suppressed wildfires.

Now, in today's hotter, drier world, forests have a huge fuel buildup, and land managers are racing to burn it away, hoping to starve future wildfires of fuel and revitalize healthy forests. But they need trained professionals to organize and manage their intentional fires.

The Prescribed Fire Training Exchanges (TREX), a collaboration developed by the Forest Service and The Nature Conservancy in 2008 to train such a workforce, started in the Great Basin. Today, TREX hosts workshops across the country, and people from 42 states and eight foreign countries have participated. I wrangled my way into a northeastern Washington training in October, burning several areas on private land just north of the town of Chewelah over the course of two weeks.

I was done igniting for the day, but I've been dreaming of ignitions ever since.

The Selkirk TREX brought about two dozen people of varying backgrounds together — foresters and firefighters, rookies and smokejumpers, employees of The Nature Conservancy, the Washington Department of Natural Resources and the National Park Service, and two citizens of the Spokane Tribe of Indians. We came from as far south as Texas and as far north as Fort St. John, British Columbia, a 17-hour drive away.

The burns put more fire back on the ground and build capacity at state and local levels so that communities can do more of that work themselves. But the program also has a loftier goal: moving agencies and the general public away from the mindset that fire is bad and always needs to be extinguished.

Not everyone needs convincing, of course. Citizens of the Spokane Tribe told us how they burn hundreds of acres on their reservation every year, and the Kalispel Tribe of Indians, whom we visited but who couldn't burn with us this fall, said they want to burn more often than they do. Still, giving more people the opportunity helps show firsthand that fire isn't scary under the right conditions. Every burn is another opportunity to create more evangelists for good fire, slowly shifting generational mindsets of fear and suppression.

Fire is hypnotizing; if you've ever sat around a campfire, you know this. But the painstaking care that prescribed fire requires extends beyond the actual burning. It can take three to five years to complete the necessary planning, approvals and environmental analyses to burn on federal land. Even our small private-land burns required detailed preparations, including thinning excess branches and creating defensible space around a house and garage, work that the landowner had already mostly completed; borrowing local firetrucks and firefighters; trucking in extra water; notifying local law enforcement and seeking approval from air-quality regulators. Safety and containing the fire are always the priorities.

A lot of our work came down to demarcating a box and then keeping the fire inside of it. If there weren't natural boundaries around the area we wanted to burn, we made them by digging line, our hands and shoulders swinging shovels and Pulaskis to scrape a firebreak down to the dirt, starving future embers of fuel. Once the work was complete, we waited for an appropriate weather window. Fire managers look for a Goldilocks zone of temperature, windspeed and humidity: Not too hot, not too cold, not too wet, not too dry, not too windy. Just right.

Once the weather cooperated, often by early afternoon, our team fanned out across the landscape — a grassy field choked with knapweed one day, a bowl-shaped section of ponderosa pine forest the next. Our tasks varied: spraying down trees with water if flames started to lick up into the canopy, wetting brush on the other side of our containment lines to create inhospitable landing spots for any wafting embers. Others used the drip torches to create a blackened buffer, meticulously painting lines with fire that paralleled the firebreak's edge. Fire on the outskirts moved toward flames in the middle, helping contain the blaze and widening the firebreak in the process.

I gawked at the others' confidence and marveled at how their movements ebbed and flowed with the flames and with each other. I felt like a kid donning grownup clothes to play dress-up. My special fire-resistant yellow shirt reached mid-thigh until I tucked it in, and a borrowed leather belt held up my flameproof green pants. Seasoned firefighters offered me caramels, Jolly Ranchers and every nicotine product known to man as we worked, a welcome distraction from the smoke tickling the back of my throat and the black fire beetles, drawn to the smoke, pelting my face and neck.

FIRE ETCHED ITSELF INTO my psyche as the second week wore on. One evening after a long day of burning, I slumped in the passenger seat of a cherry-red Washington Department of Natural Resources truck, staring at the highway shoulder illuminated in the headlights. My mind blank from exhaustion, I envisioned flinging flames along the road, long strips to smooth the edge and little perpendicular dashes to pull heat away from the border. Was I hallucinating? Or was I a real fire practitioner now? I blinked, but the image kept returning as we drove. Bits of ash and dirt were just as stubborn, wedged behind

my ears until I showered and muddying the white shower walls before they slipped down the drain.

Trying to mimic natural processes in the 21st century West, with all our boundaries, homes in the woods and air-quality regulations, is hard work. I wondered how all this effort for a total of 30 or so acres could begin to translate to the massive scale of prescribed burns needed to revitalize forests nationwide. But restoring fire to the landscape is a long game. Any acre burned alongside other people, learning to accept fire along the way, is progress. Like dots of fuel or splotches of paint, controlled burns across the country add up to a bigger picture: more good fire, healthier forests and safer communities.

Each day, I knew which way the wind was blowing; I knew how fuel was carefully portioned to keep the fire slow and steady. I understood the work we'd done to get an area ready to burn, because I'd dug containment lines with my own hands, my teeth crunching on the moondust we stirred up. Unlike a wildfire, which often sparked and spread during the driest, hottest, windiest days, these flames were set under careful conditions to achieve exactly what we wanted them to, ideally nothing more and nothing less.

Instead of stepping back, I stepped forward, wanting to experience the fire as it bent and surged toward itself. What I saw contrasted sharply with the out-of-control nature of wildfire: Prescribed fire is the hard-working, underappreciated sibling. It shares much of wildfire's fundamental DNA — fuel, oxygen and heat — but reveals beauty, precision and sooty elegance. A month or two after the burn, I saw a picture on LinkedIn of a man with a baby strapped to his chest on the front line of a prescribed fire. *That makes perfect sense*, I thought.

Trial by fire slowly transformed into trial by dust in the final few days of our training. We lit fire intentionally; we extinguished it intentionally, too. We lined up in a grid pattern and thoroughly searched the areas we'd burned after they cooled, scanning for smoke and feeling the earth with the backs of our hands to detect warmth. We zeroed in on white ash pits, stumps and roots notorious for holding heat, then dug into hotspots and sprayed them with water, turning the ground into a brownie batter of sludge.

I found the process of extinguishing meditative, the world stripped down to the ash in front of me. Dig, douse, stir. Do it again. I pondered what the crunchy ground would look like come spring. I pictured the forest awash with the verdant green shoots of new growth, birds flitting through the tree branches. Unlike a pointillist painting, a recently burned ponderosa forest doesn't dry and end up preserved in a frame. Fire isn't the finishing touch. It's the start of something new.

A prescribed fire burns into the night north of Chewelah, Washington, in October. **Kylie Mohr**

This story was supported by the University of Idaho's Confluence Lab's Artists-In-Fire Residency.

Kylie Mohr is a correspondent for High Country News *writing from Montana.*

Q&A

Mothering in the age of wildfire

Rachel Richardson's new poetry collection explores both fear and a newfound sense of agency.

BY ERIN X. WONG | ILLUSTRATION BY LAUREN CROW

IN HER NEW POETRY collection, *Smother*, Rachel Richardson depicts her daughters through their elementary school years, intermittently living amid the smoke of Northern California's wildfires. In one poem, she studies an air-quality map as the Tamarack Fire approaches the forest where they're attending summer camp. In another, her daughters hang from the ceiling, learning to be circus performers, while the Caldor Fire surrounds the buildings in the same beloved camp, and a network of parents remains glued to the news.

When Richardson herself was her children's age, fog used to seep over the hills of Berkeley, covering the trees in moisture. Now, the summers are filled with smoke. The air isn't the only thing that's changing: The world moves at the pace of breaking news, technology has transformed our relationships to time and friendship, and friends themselves sometimes pass away. *Smother* contends with all these forms of grief and documents Richardson's own struggle to find resilience in light of it. It will be published by W. W. Norton on Feb. 18.

High Country News recently spoke with Richardson about learning to love things that are ever-changing and how writing can be a source of regaining control. This conversation has been edited for length and clarity.

Can you tell me a bit about the inception of *Smother*?

I didn't think I was writing about fire; I thought that I was writing about my friend Nina's death and parenting and technology. But then the fires rose up: From 2017 through '21, there were record-breaking fires across California. And those started wedging their way into the subjects, too.

What fires do you remember most?

The first one that really affected us deeply was the Camp Fire in November of 2018. Smoke descended on the Bay Area and just stayed there in this really low-lying haze and made the

air quality terrible. We hadn't had COVID yet, but suddenly the schools were all saying, "Stay inside. Don't go out. Wear masks." That was the first time that it really felt like a global change, like this is a new place that we live in, and we're probably not going back.

One of your poems is about a fishbowl where your daughters raised goldfish, and you compare it to living in a house with windows surrounded by smoke. What inspired that metaphor?

In the Camp Fire, at the end of that two-week period of endless smoke, there was this great *New York Times* graphic that showed how the smoke moved through the atmosphere — how it moved from California to Michigan to New York, all around the world. Every continent had some of our smoke. I watched that again and again, thinking about how this is not something that you can opt out of or run away from. There are going to be different outcomes depending on luck, privilege, preparedness. But really, we're all inside of it.

You write about different information streams: air-quality data, wildfire updates, news articles, text threads with other mothers. How has the internet changed your experience of wildfires?

I think as humans — and maybe it's heightened for parents — we want to be able to control the situation. We want to be able to ensure our own safety and our kids' safety. So it's irresistible to look for information. You want to look at the air quality in every area across your city and the next cities over. What does it look like? How can I plan and pivot to protect us from this? It can make you feel like you're doing something when really the experience is of having no power and no control and just having to sit and wait and find out what's going to happen.

Does writing help with that powerlessness?

Poetry is controlled in a lot of ways. That's part of what I like about the form: It's so short and precise. You want the language to be accurate. You want it to communicate the experience, the feeling. I could really craft it and spend a lot of time with it. I mean, this book took me eight years to write, so you can see how much control I exerted.

What were you hoping to accomplish in writing it?

I think what I wanted to do most in the book was (to) feel like I was not alone.

The day that the sky turned orange in the Bay Area in the fall of 2020, it was shocking to me how physical the experience felt. It is hard to understand until you experience it. Like parenting, you can't really know what it's like until you're in that body and in that experience, and then you can't unknow what it is. These are not just news stories that flit in and out when the fire is extinguished — this is a sort of larger and longer-term condition, and it affects us in much more complete ways.

What is that longer-term condition?

The emergency is slow. It's something that stays in the back of your mind.

I'm writing in the flatlands of Berkeley. I don't think that my house is going to burn down, (but) I am worried about my friends who live up in the hills. I am worried about other towns that might burn, and I'm worried about the smoke that will come to us from all of these fires. That's the thing that stays with you: It might kill you, but it'll kill you slowly over time. I have time to feel like I'm sitting inside it, trapped.

And yet, the poems are the opposite of trapped. They feel defiant.

The most fun poem to write was the title poem, in which I invent the smoke as a persona, the ideal, impossible mother and all the cultural expectations of motherhood: how you should be able to do everything and do it all well and give your children (your) full time and attention and not find any emotional conflict in that. I had a really fun time thinking of lines for that poem. I cut them all up and reshuffled them a bunch of times. I think that's where it became clearest to me that those two subjects are deeply intertwined: the conflict I feel in motherhood, and the energy on both sides of it, is similar to trying to live with this major adversary, the danger of this climate and the fire in it.

Were you inspired by other storytellers as you wrote?

My friend Julia — her method of coping is so admirable to me. She's an environmental lawyer and a firefighter. She sees the problem, and she goes and defends the salmon's rights and defends the forest. My method is, of course, not that. But I'm trying to take the same stand, and I think most of the women I love, most of my friends, are feeling something similar.

This book isn't really about feeling like a victim. I would rather feel like I could be contributing to a healthier relationship between humans and our land, coming at it before it becomes the crisis that we're running from.

Your publisher's summary of the book begins with a question: "How should we raise our children in, and for, a world that is burning?" Do you feel like you found an answer?

For me, it was just finding people. It was just in friendships. Specifically, I'm celebrating friendships with other women, other moms, people (who have) been mutually supportive in each other's lives. That's where I find my sense of — I guess it's hope — for my kids, too. You don't solve this on your own. And I've done it more and more consciously so that my kids will have it, too — prioritize their relationships, multigenerational friendships, extended family relationships, because I think we need each other.

Erin X. Wong is an editorial fellow at High Country News.

"This is not something that you can opt out of or run away from. Really, we're all inside it."

An Inuit woman explores living in direct relationship with the land, water and plant and animal relatives of Alaska.

Unapologetically Indigenous

On strengthening roots in a new place.

BY LAURELI IVANOFF

"UVLAALAUTAQ, MR. CRAWFORD," my son Henning said as he shook his first grade teacher's hand at the door before the school day began.

"What did you say?" the teacher asked.

"Uvlaalautaq," Henning said and went into his classroom to hang his jacket and backpack.

His teacher looked at me.

"He said 'uvlaalautaq.' It means 'good morning' in Inupiaq," I said with a smile.

I was surprised Henning had said the word to his teacher. The day prior, I'd mentioned to Henning that it would be cool if he greeted Mr. Crawford by saying, "Uvlaalautaq." He had seemed excited about the idea, but I wasn't sure if he'd actually do it.

Mr. Crawford and I took a minute then and went through the pronunciation of the new-to-him word. He tried his best, and we agreed that I'd send an email with the pronunciation written out, so he could practice:

Henning said good morning in Inupiaq. It's spelled uvlaalautaq, and pronounced (OOV-law-LOW-duq).

Saying "uvlaalautaq" or other everyday phrases in Inupiaq in our home is something we just do. It's something I grew up with. I'm not a fluent speaker, but we use Inupiaq words and phrases all the time. *Kakik* for snot. *Aarigaa* when something brings a feeling of peace and joy in our chest and belly. *Migiaq* for throw-up. *Kilamik* if someone needs to hurry. But now, living in Anchorage, daily use of our simple phrases has become a small way for us to root ourselves in identity in a new place. Where many languages are spoken. Where we are the minority.

I hadn't anticipated it, but I feel my roots strengthening. Perhaps like the trees in Unalakleet, my home community, near the house we built there. Rooted, strong and deep into the soil, so when the persistent hurricane-force east winds arrive in January, the trees don't topple. Maybe a few branches break off and spruce cones scatter across the crusted snow, but the trees themselves stand strong. The last seven months, since we moved to Anchorage, have felt somewhat like a strong wind. I feel my roots deepening.

SINCE THE MOVE, I've made mental note of the big and little ways our roots are strengthened and we remain connected to who we are. It's in saying, "Araa," when something is annoying. It's in eating dried *ugruk, quaq* (frozen trout), herring eggs, carrots and seal oil for dinner when our bodies are needing good oils and iron. When our souls just need a taste of home. Or, honestly, when we're tired and don't feel like cooking, because Native food, we joke, is fast food: It's all prepared and processed at the time of harvest.

My roots deepen when I wear my parki on a normal day, the yellow one my dad's wife made with the wolverine ruff and the traditional princess cut, heading to Costco to pick up a bag of Power Greens for my morning smoothie and a box of organic dates for the little pick-me-up I make for myself every day after lunch — date, butter, salt. It's in noticing the side-eye I get from people looking at me wearing a "coat" that looks different from the norm. Feeling a little bit nervous in my stomach. A slight ache in my throat of thinking maybe I don't belong. And then taking a deep breath and feeling the strength of life flow through my backbone as I look at them with a smile behind my eyes, and maybe see them smile back.

Simply existing and walking in this world makes a statement. Because I am *Inupiaq.*

It's in feeling the spirits of my mom, my gram, and my aunties, Abuz and Zoe, when I browse a shop for the Marimekko mugs I like, a gift for friends getting married. Noticing that I didn't hear a "Let me know if I can help you with anything," when I walked into the store, but every white woman is greeted with a strong, warm "Welcome in." In those moments, I'm keenly aware of my brown skin, soft cheeks and dark hair. I wonder, *Do they think I don't belong here?* And I work to relax the muscles in my belly to breathe deep. Breathe from the ground beneath my feet and into my lungs. I feel my strong legs and take my Native body and my plastic credit card out of that shop to purchase a wedding gift elsewhere.

I also feel it when, hiking above the treeline to pick berries, I see another Native family among the hikers and dogs out enjoying the fall colors and fantastic Anchorage trails. In stopping and asking where they're from. Asking what they're picking. Asking if they know so and so from Akiak. Happy to have a moment with people who, with their distinct Yup'ik accent, sound like my aunties. Knowing they, too, will make fish *akuutaq*, most definitely better than mine, with the berries they picked.

It's moments like those that keep my belly and face soft. Those connections that keep me looking at the world with my forehead, not focused on myself and my too-often-nervous belly. The moments keep me interested in learning and using more of our language. In raising Henning to have a firm understanding of where he comes from. And they keep me connected with the people who surround me, who now make up our world.

BECAUSE THE SOCIAL landscape in Anchorage is telling me to dig deep into my community's values, to remember my grandparents' example, and the thousands of years of wisdom shaped by place and community that guides us. It's telling me to live unapologetically Indigenous. Because simply existing and walking in this world makes a statement. Because I *am* Inupiaq. It's how I was raised. It's who I am. And because me being who I am is me living healthy. Us, being who we are, is freedom. It's the best of what we can share with the world.

It reminds me of the words from my friend Middy: "Bring the best of home with you, wherever you live."

And so, every now and then, Henning or Henning's teacher will say, "Uvlaalautaq," before the school day begins. And I feel my roots dance a little bit.

Laureli Ivanoff is an Inupiaq writer and journalist from Unalakleet, Alaska, now based in Anchorage.

Untitled, digital collage featuring Laureli Ivanoff's family, Jenny Irene's familial archival picture, Ivanoff's handwriting, 2025. **Jenny Irene**

Heard Around the West

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

BY TIFFANY MIDGE | ILLUSTRATION BY DANIEL GONZÁLEZ

PACIFIC NORTHWEST/SALISH SEA

Speculation abounds regarding a photo taken by Jim Pasola on Oct. 25, 2024, which shows an orca known as J27, or Blackberry, wearing a dead salmon on his head, rather stylishly. Deborah Giles, a longtime biologist at the University of Washington's Friday Harbor Laboratories, noted that a similar "salmon hat craze" spread to the three pods that comprise the southern resident orcas of Washington's Salish Sea. "It seemed to kind of pass along to multiple different members of the population," Giles told *National Geographic*, and then, like so many fashions, it faded away, until J27 resurrected it. One explanation for the jaunty headgear, aside from the orca's natural desire to make the next best-dressed water-mammal list, involves the Salish Sea's unusually high chum salmon population. When food is abundant, the orcas have the luxury to goof off and attract mates, perform interpretive dances or launch a modeling career, whatever the case may be. "These are incredibly smart animals," Giles said. "The paralimbic portion of their brain is significantly more developed than it is even in humans, and these are parts of their brains that are associated with memory, and emotion, and language." Which makes sense; after all, orcas aren't the only mammals to wear animal remnants on their heads. We humans have long accessorized using other species' skins, furs and feathers, though most of us clearly lack the orcas' fabulous sense of style.

OREGON

Totally tubular "sea pickles" are making a splash on Oregon's beaches. These particular "pickles" don't belong on charcuterie boards, however — well, not human ones, though dolphins, bony fish and whales certainly relish them. These kooky, plankton-swilling critters are often mistaken for jellyfish owing to their gelatinous and translucent appearance, but they're actually made up of multi-celled animal colonies called zooids. Oregon's most commonly found species is *Pyrosoma atlanticum*, which can grow up to 2 feet long, the Seaside Aquarium told *The Oregonian*. Pyrosomes have a bioluminescent glow — *Pyrosoma* translates to "fire body" — and they tend to congregate near the equator though they've been known to show up en masse on Oregon and Washington beaches and as far north as Alaska. Despite their undeniably weird appearance, they're reportedly harmless to humans and dogs, though it might be best to avoid getting pickled on them.

ARIZONA

Will educators one day be replaced by artificial intelligence? Apparently, it's already happening: The Arizona State Board for Charter Schools green-lit an application for an AI-based virtual school — "Unbound Academy" — while Texas and Florida have already launched Alpha Schools, which use an AI teaching model. Unbound Academy claims that students can learn twice as much with AI as they do using traditional teaching methods, kjzz.com reported. Dean of Parents Tim Eyerman said the school day will start with AI learning on language, science and math, then switch to non-academic subjects: "The morning is taken over through our AI learning, and in the afternoon they get the opportunity to really hone in on those life skills," he said. Those "life skills" include developing teamwork strategies through practicing the "Harvard Business Study of climbing Mount Everest," whatever that is, and "narrating scenarios" from Dungeons & Dragons. The next step, obviously, is to replace human students with, say, cellphones, something that's also already happening.

CALIFORNIA

This next story really should carry a Content Warning. Discoverwildlife.com published this shocking headline: "Bloodthirsty squirrels develop a taste for meat." A long-term behavioral study from the University of Wisconsin-Eau Claire and the University of California indicated that California ground squirrels — slightly larger relatives of those adorable li'l critters your dog loves to chase around the park — are actually vicious serial killers that hunt, kill and devour other adorable li'l critters, particularly the mouse-like (not mousse-like) rodents called voles. Researchers, who were studying how the ground squirrels adapt to environmental changes, believe that they expanded their formerly vegan plant-and-seed diet to include *dejeuner avec des souris*, owing to the unusually high numbers of voles in California's Briones Regional Park. Jennifer Smith, associate professor of biology at the University of Wisconsin-Eau Claire, told CNN in an email: "In the face of human insults such as climate change and drought, these animals are resilient and have the potential to adapt to live in a changing world." We can't wait to see how the rest of our fellow mammals adapt once they figure out that the planet's climate change problems are entirely our fault, and that we're edible, too.


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#IAMTHEWEST

BEATA TSOSIE (SHE/THEY)
(SANTA CLARA PUEBLO)
Mother, birthworker, farmer, poet and organizational director at Breath of my Heart Birthplace
Kha'p'o Owingeh, New Mexico

We live next to nuclear weapons production, so we worry about the multitude of chemical combinations released on a daily basis. We're dealing with some of the only toxins that can cross placental boundaries — tritium water, for example — and there's proposed tritium venting coming up in our community. Breath of My Heart and Tewa Women United advocate for centering "Nava T'o i Yiya," which translates in our Tewa language to "Land Worker Mother," as the standard for protections. If we center Indigenous birthing people as the standard for protection, then everybody's protected, right? Because for so long we've been conditioned to further that disconnection from our roots and the land. Traditional teachings show us that our first environment is those birth waters. So, really, we can think of them as an environmental landscape to integrate into environmental and reproductive justice.

Do you know a Westerner with a great story?
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