

Spring21
vol20no2

Washington State

MAGAZINE

CIRCULAR
THINKING

26

History can
comfort

28

Hydrogen fuel
comes 'round

34

Stories of
resolve from
distant circles

{ *Navigation tools* }



COVER / BACK PAGE



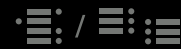
ENLARGE QUADRANT



RETURN TO SPREAD VIEW



PREVIOUS / NEXT PAGE



IN THIS ISSUE

CLICK ON PAGE # TO GO TO STORY



SCROLL PAGE

(IN ENLARGED VIEW)

WEB LINKS

URLS IN TEXT & ADS CLICKABLE



CLICK HERE TO EXIT

OR USE **ctrl/cmd-Q**





OUR **20th** YEAR

Spring21

vol20no2

Features

From the simplest element comes the greatest potential to power the world. **28**

Our Cougar family pays it forward around the globe. **34**

Essay

Gazing to the past for comfort and strength for the future **26**

UPfront

When the train was *the way* to travel to Pullman **14**

Handling the *trying times* **15**

What's *wild and wonderful* in our cities' backyards **16**

Finding similar values in those "different from us" **17**

The race to use her diagnostic degrees *down to* negative fifty degrees **18**

So you're so *borrrrrred*? **19**

Helping others see it is indeed a *wonderful life* **20**

COVER: STAR TRAILS OVER ABANDONED FARM HOUSE IN THE PALOUSE (PHOTO KATRINA BROWN)
LEFT: RAINDROPS FALL ON THE REFLECTION OF A RED SIGN IN PUDDLES (PHOTO GEOFF CRIMMINS/MOSCOW-PULLMAN DAILY NEWS)

We met @WSU Circling back to collegiate couplings ALUMNIPEDIA



COURTESY OF THE STOWE FAMILY

Thematics

SHORT SUBJECT 10

Braving the dangers of a protest to get to the heart of the message

DIY FILES 24

Preserving your garden's bounty? Yes, you can!

Departments

- 5** Circles **FIRST WORDS**
- 8** It's a mantle of responsibility **FROM THE PRESIDENT**
- 21** *Double Crossed* **50** *Remote; Legacies of the Manhattan Project; Sins of the Bees; Paleo Nerds* **53** Podcasts to ponder **NEW MEDIA**
- 22** A classic pairing **IN SEASON**
- 43** Caffeinated Cougs **44** The winner is ... **45** Big cat on campus
- 46** Working forward, Working through it **ALUMNI PROFILES**
- 54** CLASS NOTES **55** Charles "Chadd" Kahlsdorf '14
- 56** Mike Urban '11 '16
- 57** IN MEMORIAM
- 62** Orbital notations **LAST WORDS**

Washington State Magazine is published quarterly by Washington State University. **Editorial office:** IT Building 2013, 670 NE Wilson Road, Pullman, Washington. 509-335-2388
Mailing address: PO Box 641227, Pullman, WA 99164-1227. Printed in the USA. © 2021 Washington State University Board of Regents. All rights reserved. Views expressed in *Washington State Magazine* are those of the authors and do not necessarily reflect official policy of Washington State University.

Washington State Magazine is distributed free to alumni, friends, faculty, and staff. Others can subscribe or gift the magazine for \$25 yearly (magazine.wsu.edu/subscribe).
Change of address: Biographical and Records Team, PO Box 641927, Pullman, WA 99164-1927; address.updates@wsu.edu; 800-448-2978.

Washington State University is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. This publication is available online as text-only and in other accessible formats upon request: wsm@wsu.edu; 509-335-2388; 509-335-8734 (fax).

A PARTNERSHIP BUILT ON COMMUNITY

Like WSU, we believe in helping the community. As a not-for-profit credit union, we're here to improve the financial wellbeing of our members.

We're BECU – proud sponsors of the Washington State community.



BECU membership required. Restrictions apply. Federally insured by NCUA



We do our part
so she can do hers.

Her focus is a quality product and growing her local business. Ours is protecting the supply of electric power to her shop. Together we power the future.

Learn more at selinc.com/ourpart.

SEL SCHWEITZER ENGINEERING LABORATORIES

FIRSTwords

OUR **20th** YEAR

Circles

Almost a year has passed since the pandemic stalked its way around the globe. It's astounding to me how so much could get turned around and topsy-turvy so quickly. Across the country and Washington state, though, we've witnessed people persevere in the face of tragedy and hardship, finding hope and sharing comfort.

It's a struggle everywhere. We spoke to Cougars around the world about their pandemic experiences, from Nikola Koprivica ('10 Intl. Busi.) in Serbia to Nicola Perera ('15 MA English) in Sri Lanka, and many countries in between. Their stories reflect our own in the United States, and it comes back to adapting and finding new ways to live.

Speaking of innovation, WSU researchers are taking a fresh look at old fuels, like hydrogen that launched the most powerful U.S. rockets. Green hydrogen, produced with renewable energy such as wind and hydropower, is poised to take its place in the array of energy sources we need to reduce climate change.

We also must change core problems around racial justice and the need for equity. WSU is committed to building a fairer and more just University and world, as called for by the Black Lives Matter protests in 2020. Those protests were reported by a number of Murrow College alumni, and their stories are told by Murrow instructor Wendy Raney McCann in this issue.

Last year affected more than humans, too. We saw the return of wildlife to many of our cities and towns as traffic lessened. WSU alumni with Woodland Park Zoo in Seattle have been tracking the coyotes, foxes, river otters, raccoons, and other animals throughout metropolitan neighborhoods.

Whenever there's a disruption on the scale of 2020 and COVID-19, we're bound to see changes in behavior and societal norms. WSU sociologists Christine Horne and Monica Kirkpatrick Johnson examined those new norms. They found political divides but also some commonalities.

One common need: taking care of ourselves and others in a time of crisis. We sought advice from WSU experts on making it through this time. And, as mentioned in past issues, we've got Cougs like Wayne Chang ('10 Civ. Eng.) with Doctors Without Borders stepping up to help people in need around the world, including the United States.

It's often said that history repeats itself. Is there a benefit in circling back to the past to learn about our present? Nikki Brueggeman ('13 History) answers "most definitely" in her essay that tells us that history reminds us we're not alone and that we have a duty to remember.

EDITOR: Larry Clark '94

ASSOCIATE EDITOR: Adriana Janovich **ART DIRECTOR:** John Paxson **STAFF WRITERS:** Alysen Boston '17, Rebecca E. Phillips '76, '81 DVM

CONTRIBUTING WRITERS: Trevor James Bond '17 PhD, Nikki Brueggeman '13, Tom Kertscher, Wendy Raney McCann, Rachel Webber '11, Jeffrey Willadsen '16 MA

PHOTOGRAPHERS: Katrina Brown, Geoff Crimmins, Mike DeCesare, Nathan Howard '15, Cori Kogan, Pamela D. McAdams

ILLUSTRATORS: Sarah Frisk, Ham Khan

WSU PRESIDENT: Kirk H. Schulz

VICE PRESIDENT, UNIVERSITY MARKETING AND COMMUNICATIONS: Phil Weiler

ADVERTISING: Contact Lowell Ganin, 206-717-5808 or lowell@everedify.com
Advertising guide is online at magazine.wsu.edu/advertising.

Washington State Magazine is pleased to acknowledge the generous support of alumni and friends of WSU, including a major gift from Phillip M. '40 and June Lighty.



For magazines printed on demand through **MagCloud**, the paper is acid-free and FSC-certified from responsibly managed forests and verified recycled sources.

TALKback

Special place in my heart

"The audacity to dream" by Brian Charles Clark [Winter 2020] was an exceptional insight into the Na-ha-shnee program, which



promotes the nursing profession and sciences to Native American students. I was fortunate to have an experience with this group while I was a TA for the Biology 315 cadaver lab program in Pullman (2009–2010). I co-led a day camp where we gave high school age students an overview of human anatomy, the cadavers, and even taught them how to suture on pigs' feet! Though brief, it was one of my most cherished experiences at Washington State University. I am now an ICU nurse, and I work for a system in Oregon that includes a nearby reservation in its service area. I learned cultural competence from the Na-ha-shnee program, and Native American patients hold a special place in my heart. I am proud to be part of a university that strives to give unique opportunities to students from our Native American communities. Thank you to the author for bringing this program to light! It was wonderful to hear an update.

TRISTAN GROOT ('09 ZOOL.)

A purr-during memory

The "Cougar Confidential" article [Fall 2020] mentioned sending memories of Butch. I have one that I think is special.

Do you have memories of Stevens Hall? We'd love to hear them: magazine.wsu.edu/contact

My husband and I were students then, working our way through school, so that summer we had stayed in Pullman. It must have been about 1961. We were playing tennis on the courts near Butch's cage and we heard him crying. He was really hollering! So we went over to see what's wrong with Butch! As soon as we got near his cage, he flopped over on his side and started purring! I had always wondered if big cats could purr. Now I know! We stayed and talked to him for a while.

I thought it was really neat to have a live cougar mascot, but we felt really sorry for him having to live in solitary confinement. I'm glad the students protested that and switched to "pretend" cougars!

Thanks for that article.

CONNIE (SMITHHISLER) BUCHANAN
('62 BIOL.)

LEFT: NA-HA-SHNEE GRADUATION 2019 (CORI KOGAN/WSU HEALTH SCIENCES SPOKANE)

BELOW: BUTCH I, GIFTED IN 1927 BY GOVERNOR ROLAND HARTLEY, WAS NAMED AFTER COUGAR QUARTERBACK HERBERT "BUTCH" MEEKER. (COURTESY WSU MANUSCRIPTS, ARCHIVES, AND SPECIAL COLLECTIONS)



MADE FOR THIS
go.wsu.edu/madeforthis

WIND AND WINGS

Aircraft powered from wind?

Excess power from wind can produce hydrogen for aircraft fuel cells.

The rising hydrogen economy could bring billions of dollars to the Northwest.

Washington State University researchers and entrepreneurs are leading the way.

PULLMAN VANCOUVER TRI-CITIES SPOKANE EVERETT GLOBAL

WASHINGTON STATE
UNIVERSITY

FROM THE *president*



With the Washington state legislature currently in session and wrestling with a multitude of fiscal challenges born in the aftermath of COVID-19, the University is among the dozens of state agencies making the case for funding to support priorities. It's moments like these—when we're asked to demonstrate how investments in the University pay off for the state—that I feel immense pride about the benefits WSU delivers to Washingtonians and people beyond our borders.

Examples of those benefits are numerous. I need only walk a block on Stadium Way from my office in the French Administration Building to see one

such form of our enormous—and expanding—contributions to the state. The new four-story Plant Sciences Building provides a modern venue for faculty, staff, and students to support Washington's \$51 billion food and agriculture industry.

The \$66 million cost of the facility was funded by the legislature. Dedicated in November, the building provides a massive upgrade in the quality of lab space that was built decades ago. The facility will be home to the Institute of Biological Chemistry, Molecular Biosciences, and portions of the Departments of Horticulture, Plant Pathology, and Crop and Soil Sciences.

The open-concept labs will enhance the interdisciplinary efforts critical to fostering successful cutting-edge research. Our scientists will use new technologies to explore complex traits in plants, defend against parasites and diseases, and improve the nation's cyber infrastructure, among other efforts. The knowledge gained from the research will improve hundreds of crops important to our state's economy, including wheat, potatoes, apples, cherries, legumes, forest trees, and turfgrass.

The University's efforts to help the state with the storage and distribution of the COVID-19 vaccine are similarly noteworthy. Thanks to the ultra-cold freezers available in our Pullman research facilities, we are storing doses of the vaccine at suitable temperatures for distribution to 10 counties in eastern Washington as well as to the Colville, Kalispel, and Spokane tribes. In addition, WSU pharmacy students have been trained to administer the vaccine.

We're exceptionally grateful to the Washington legislature and state leadership for the trust they place in the University to address some of the state's needs. It's a trust we intend to continue repaying many times over in the years ahead. After all, serving the state is central to our land-grant DNA. It's a mantle of responsibility we've proudly worn since the University's founding nearly 131 years ago.

KIRK SCHULZ
President, Washington State University

Help us put wind back in our sails

The doldrums of the pandemic have impacted our ability to produce the quality print magazines that you so enjoy. You can help us:

Give to *Washington State Magazine* [magazine.wsu.edu/friend]

OR

Become a paid subscriber* (even if you receive now for free) [magazine.wsu.edu/subscribe]

*With your help we can return to full sail. **Thank you.***

OUR **20th** YEAR

*Unless you are a WSU Alumni Association member, this is the best way to receive the limited distribution Summer 2021 issue.

PHOTO CREDIT: THE TALL SHIP *LADY WASHINGTON* UNDER SAIL IN COMMENCEMENT BAY NEAR TACOMA IN 2008. MISO BENO/WIKIMEDIA COMMONS

SHORTsubject

Reporting the protests

BY WENDY RANEY MCCANN

Nathan Howard was tired. It was his twentieth night in a row covering Black Lives Matter protests in Portland and he found himself in the wrong place at the wrong time.

Protestors had marched on the sheriff's department and police had come in to disperse the crowd. It seemed like a regular dispersal, Howard says. Suddenly a flash-bang exploded, about a half second after it bounced off his ankle.

Journalists across the country are committed to maintaining the integrity of their profession, increasingly putting themselves at risk in an environment where the former president of the United States frequently has referred to the media as "the enemy of the people." A profession that has long been respected for its mission to provide citizens with accurate and reliable information now faces wartime elements, hatred, and other dangers.

Murrow graduates documenting the Black Lives Matter movement and other protests say they have become targets, with threats coming from multiple directions.

the Florida man who killed 17-year-old Trayvon Martin. The organization's website says BLM's mission is to eradicate white supremacy and build local power to intervene in violence inflicted on Black communities by the state and vigilantes.

BLM protestors marched throughout the country following the death of George Floyd at the hands of Minneapolis police officers on May 25, 2020, and protests continued in Portland, Oregon, every night for months afterward.

Hannah Lambert ('15 Comm.) says covering the protests was like nothing she's ever experienced. On the first couple of nights in May, the police aggressively dispersed crowds early, even though the city had a curfew in place. She says they used tear gas and flash-bangs.

"It's chaos trying to do your job and report while you're being blinded by gas or trying to stay out of the way and show your media

Howard has seen hate, violence, and fear as he has photographed the protests night after night. His throat is burned from tear gas and he drinks a lot more water than he used to. He says he does his best to stay rested so he can maintain situational awareness. He has a military-grade mask and a bulletproof vest.

He was there on the Fourth of July when federal law enforcement officers in military fatigues, carrying assault rifles with live ammunition, started grabbing protestors. He was 20 feet away in August when Aaron J. Danielson, a supporter of the right-wing Patriot Prayer group, was killed. On the hundredth night of protests, he saw protestors throw a Molotov cocktail.

"That was attempted murder on the cops, extreme in that sense," Howard says. "That thing almost hit four photographers. That was a gut check for us."



"I looked down to make sure I still had a foot," says Howard, a 2015 graduate of the Edward R. Murrow College of Communication at Washington State University. "I continued working for another 30 minutes after that."

In the moment he paused to check his foot, police began chasing protestors. There was no time to get a medic, he still had a job to do. He began running after police, who were running after protestors down alleys and dark streets. He wanted to document the arrests and the police interactions with local residents, the freelance photojournalist says.

"If I'm injured and labeled as press, and they felt comfortable doing what they did to me ...," Howard says, and then pauses for a moment. "Somebody has to be there to photograph it, to document it."

"I think we are always on edge," says Veronica Miracle ('12 Comm.), general assignment reporter for ABC7 Eyewitness News in Los Angeles. "There's so much anger at protests, you have to be careful not to have it directed at you."

Reporters say it is not safe to be in vehicles marked with their news stations' logos, and they don't wear clothing that identifies them as media. Some journalists wear eye protection and bulletproof vests. Past midnight many news stations rely on helicopters and freelance reporters for coverage.

"We won't go to any big event without at least two security. I've had four, for just me and my photographer," Miracle says.

Over the last seven years, BLM has transformed from a hashtag to a social justice movement and a national organization. Organizers founded BLM in response to the 2013 acquittal of George Zimmerman,

credentials," Lambert says. "It was my first time being tear gassed, and I got it like five times that first night."

Lambert, a digital enterprise reporter for KOIN 6 News in Portland, says she saw a change in dynamics after the first few weeks of protests.

"It began with young people of color. Then the movement got hijacked by Portland's core group of protestors, a majority white," Lambert says. "It's very far from what it started as."

Reporters say it is challenging when there are dueling protests and both sides hate the media. There's a balance, reading the situation and interpreting the levels of hostility.

"You've got four factions and none of them are super thrilled the press is there. Cops, feds, far right, and protestors," Howard says. "How do you safely maintain access to all four groups at the same time? If you don't have access, you can't tell the story."

He says the immediate physical danger gets his adrenaline going and safety is a concern, but it doesn't linger.

However, Howard was concerned when federal law enforcement officers began policing protests in July. Members of the media saw unusual cars parked outside their homes and observed the same people repeatedly throughout the day. Journalists weren't sure if protestors were following them, or cops.

"The Department of Homeland Security was creating dossiers on reporters," Howard says. "That's what scares me. The federal government monitoring the press, or the local police doing it, that's more concerning for me and what that means to the press."

In late July, Chad Wolf, the acting secretary of homeland security, ordered the federal agency's intelligence unit to stop collecting that information.

Wendy Raney McCann is a scholarly assistant professor at the Edward R. Murrow College of Communication.

Reporters each have their own strategies for maintaining safety. Howard talks to police to show them he's not a threat and he wears the same clothes every night to make it easy for them to identify him.

"Police are a player and that's been very unsettling, in a way, to watch," Howard says.

While he talks to law enforcement, Howard limits how much he talks to protestors.

"In really intense situations it can be easy for comments to be misconstrued, and it can be very dangerous. I try to be a fly on the wall," Howard says.

Miracle says her role at the Los Angeles protests is to help people at home see what is going on. She attends protests as a witness, to show where are people going, what they are doing, and why they are there.

on Twitter and looked for her at protests. She says she wasn't afraid she would be physically attacked, but she had an uneasy feeling she wasn't used to. Her news station pulled her from covering protests, and she says she appreciated the break.

"After three months, it was a lot of tear gas, a lot of long nights," Lambert says. The protests, coupled with a pandemic and a contentious election, have created a difficult environment for journalists, she says.

Latisha Jensen ('19 Comm.) has focused on the accountability of one particularly aggressive officer in Portland rather than nightly protests. Riot cops cover their name tags, but most are identifiable by a number on their helmet. After weeks of reporting on the officer who wore helmet number 67, Jensen reported the officer's name in a story after confirming it with three independent sources. By October, five officers had been taken off street duty, she says.

not. Still, in the fall she shifted her focus to building a database on the arrests, or lack thereof.

"Those stories are harder to write and take longer, those stories about what this all means," Lambert says. "If reporters are out for six or seven hours at a protest, they don't have time to dig into the deeper meaning. It's a resource problem. [News] outlets have had layoffs. It's a pandemic."

In between longer, in-depth news stories, the violence becomes the narrative, Howard says, but not because anyone is failing as a journalist. The overarching theme of violence is going to come out, he added.

"The violence that is abnormal is the most newsworthy," he says.

It can be difficult to keep up with all of the news and prioritize it every day when so many important issues need attention. Jensen says that one of the biggest challenges she sees is that Portland, among the whitest cities in America with 77 percent of residents categorized as white, is the center of these social justice protests.

As the one-year anniversary of George Floyd's death nears, reporters consider how long this moment will last.

"When you talk to folks consistently participating in extreme activity and ask why they are doing it, they say they've been trying to affect change from within for years to no effect," Howard says. "Their response is to take to the streets where it gets media attention and scares people they think should be scared."

Until we have a system where everybody feels like they are heard and they can affect change, this will continue to happen, Howard says. Meanwhile, there are always a few things on his mind when he's working at the protests.

"I'm always looking for moments of humanity between protestors and police, sometimes cops and protestors sharing a joke, protestors sharing a hug. I'm looking for that human element. I'm hoping something will resonate with people in my photos."



"You have to be really smart and aware of your surroundings," Miracle says. "That undercurrent of hatred is always there. The age of journalism is different from the one I expected."

Journalists say it is important to differentiate between Black Lives Matter protests and those led by other organizations and groups.

Lambert says that as the protests shifted away from BLM, attitudes toward the media started changing. The early protests were media friendly, she says, but now many protestors oppose the media. They record their own footage, but only film police, Lambert says.

Late in the summer, protest organizers blacklisted Lambert for shooting video that went against the protestors' "media rules," which include not filming or photographing protestors' faces or people committing crimes. Protestors tracked Lambert through her activity

"I feel like I had a role in that," says Jensen, who covers inequality and political representation on the east side of Portland for *Willamette Week*.

Reporters know their safety isn't guaranteed, but many are willing to take the risk.

"Officers don't care if you are with the press," Jensen says. "[Reporters] know that something might happen. That's why it's important that they be out there."

Safety isn't the only challenge journalists face as they work to tell the protest stories. News organizations have limited resources and reporters are exhausted mentally, physically, and emotionally.

After months of protests, some journalists contemplate whether their audiences are getting tired of the coverage. Lambert says based on the stories KOIN viewers read on the station's website, they are

"As a journalist of color, I'm filling a gap that's needed in Portland, as a Black person in a really white city," Jensen says.

Jensen says being the only person of color on her staff can be draining. Her newspaper endorsed a city council candidate this summer who had made insensitive comments about people of color.

"People can be insensitive in their reporting and that can be harmful to communities," she says. "It keeps that way of speaking to people and the stereotypes ok."

Howard also notes that a majority of the journalists covering the protests in Portland are white.

"It's often easy to forget who frames the narrative of these protests," he says. "You still, in the way you see the world and through your personal experiences, frame the narrative."

Howard says he will not stop covering the protests. He spends a significant amount of his time looking for ways to keep national editors interested in a story about Portland.

"This is an incredibly important story and unless you have someone actively looking for stories to interest national outlets, protestors will lose protections they get from having national attention," he says.

Jensen says covering the protests was emotionally tolling, but she finds it rewarding. She has spoken to victims of police brutality and shed a light on deep inequities in the community. She says you have to look at each individual to understand the inequities, and consider not just race, but schools, poverty, jobs, housing, and more.

"What will get us to the end is listening to the heart of the message: What people are demanding—why they are on the streets in the first place," Jensen says. *

Meet you at the depot

BY RACHEL WEBBER

For a long time, train was the way to travel to Pullman, and each year hundreds of college students arrived downtown at the Northern Pacific Depot.

It was where Pullman residents greeted eager students and drove all their luggage to campus, says Washington State University archivist Mark O'English.

"In the school's early decades, they didn't have enough cars to carry all the students," O'English says. "So you'd have this parade of students coming in and hiking up the hill to meet their luggage at the top."

Those who pass through the depot doors today—and into the Pullman Depot Heritage Center—can explore how

the railroads transformed agriculture, the University, and life on the Palouse.

Once the "hub of town," this iconic red-brick depot building was a vital part of the region's growth, says Linda Hackbarth, cochair of the center.

"It's what kept the town moving," Hackbarth says. "Now we are asking, how do we recapture some of that history?"

The depot has been accepted to the National Register of Historic Places and work is underway to restore the building.

"It will be a gathering place for Pullman," Hackbarth adds. "It's not a bunch of artifacts sitting in cases, but something that will be continually growing."

A "Fix the Bricks" campaign was launched to replace the roof and restore the exterior bricks beginning this summer and future interior renovations will let visitors feel they've stepped into the past.

It wasn't so long ago passenger trains still ran through Pullman. The last ones ran in the 1960s. But for decades, Cougar Special trains brought students

to Pullman from Spokane, Tacoma, or Seattle.

The back-to-school service on Cougar Special trains in the 1920s boasted a friendly atmosphere, modern travel conveniences, and famously good "Big Baked Potatoes! Big Baked Apple! Lemon Pies!"

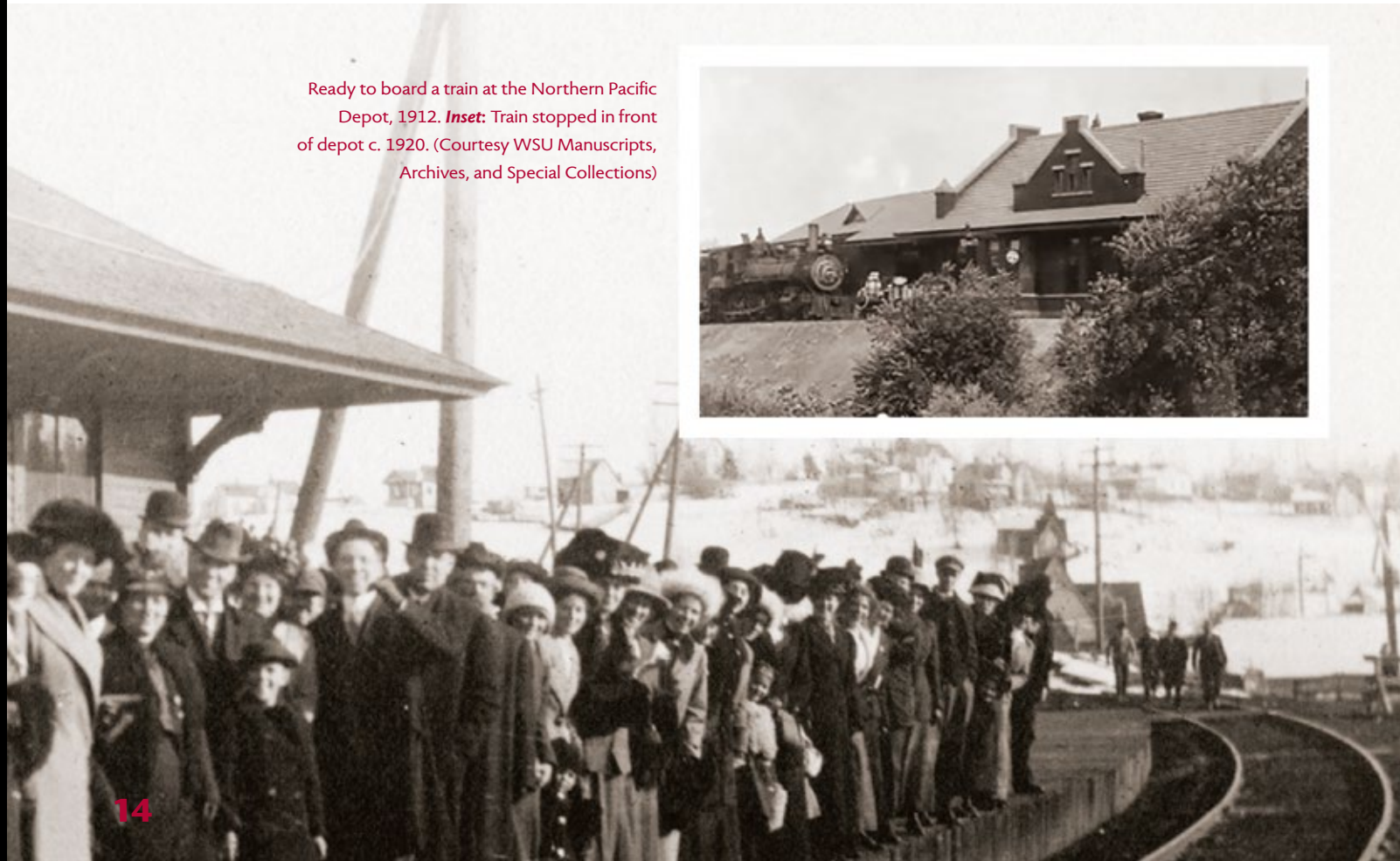
In addition to delivering students, trains carried Extension's agricultural demonstrations across the state, transported blood donations, and even into the 1980s brought textbooks and school supplies to Pullman.

While the trains may no longer run, the depot has found a new purpose in the community and remains a visible part of downtown, says committee member and fundraising chair Debbie Sherman.

"We want to keep it as a focal point as we help people learn about where they live," she says.

At the depot, people across generations can connect with the region and its past—whether they've spent a lifetime in Pullman, a few college years, or are just passing through for the day. ✱

Ready to board a train at the Northern Pacific Depot, 1912. Inset: Train stopped in front of depot c. 1920. (Courtesy WSU Manuscripts, Archives, and Special Collections)



BY ALYSEN BOSTON

Take care! How to handle the trying times

As months pass of the COVID-19 pandemic and lockdowns, researchers say the upheaval and loss of typical routines has mixed results for Americans. For many, it's a source of anxiety, depression, and frustration, but others have found ways to enjoy this new normal.

Raven Weaver, Washington State University assistant professor of human development based in Pullman, and a team of ten faculty in prevention science are studying how a representative sample of people of different ages, sex, race, genders, living arrangements, and socioeconomic status are coping with these restrictions. The *American Journal of Health Behaviors* recently published their article about health behaviors at the onset of the pandemic.

"One thing we're seeing is that older people tend to be more resilient and able to see the bigger picture of what is happening right now," Weaver says. "This unique situation has allowed us to get in touch with ourselves and recall previous hobbies or find new ones that bring us joy, to make the best of a rough situation."

Weaver and Cory Bolkan, associate professor of human development at WSU Vancouver, are codirectors of WSU's GATHER Lab (Generating Aging and Translational Health Equity Research). With the pandemic lingering on, Bolkan says it's critical to find healthy ways to cope.

"We are a society that really wants to have an answer," Bolkan says. "But in this pandemic, we have to recognize that we're

not going to have all the solutions and to find a way to cope with that."

Weaver says the first step to coping is understanding that we have a right to be uncomfortable about how much our world has changed.

"We have to steer clear of the comparative loss game. Allow yourself to acknowledge that you've had a loss, whatever it is," Weaver says.

The next step is acknowledging our mental, physical, and emotional needs and



making a plan to address them, Bolkan says.

"We have to have physical distance, but not social distance," Bolkan says. "If you're Zoom fatigued, get creative in other ways. Maybe write a letter or give someone an old-fashioned phone call."

Bolkan recommends structured, intentional planning not only for daily tasks, but also for social interaction. Journaling and reflection are also helpful ways to deal with our concerns, and Weaver recom-

mends making a list of five things you're grateful for every day.

"Focusing on your own gratitude, even when we're feeling defeated, is helpful," Bolkan adds.

Chris Connolly, director of WSU's Exercise Physiology and Performance Lab, says physical activity is an underutilized strategy to boost one's mood.

"Physical activity and movement are a natural preventive strategy for a lot of health issues, mentally and physically," Connolly says. "We're routine oriented people, so this might be the best time ever to establish new health and wellness goals, behaviors, and habits."

Physical activity takes many forms beyond gym class and weightlifting. It's also dancing, walking, hiking, roller blading, even playing motion-sensing video games where you can bowl or play golf.

"There's this perception that exercise is going to the gym. It hurts, it's hard, you sweat a lot, get through it and you're done," Connolly says. "But physical activity is any movement above rest. The best exercise is what you're going to want to do every day or at least five days a week for the rest of your life."

Since March, activities like the Kindness Rocks Project, where people paint rocks and hide them throughout their community for others to find, and the augmented reality video game *Pokémon Go* have gained popularity. Simple and fun for all ages, these activities get people moving and interacting with others while still following social distancing requirements.

"In a society that is individualistic and not collectivist, it is a big learning curve for understanding why we're doing things if it doesn't immediately affect us," Weaver said. "But we all have a stake in it." ✱

Neighborhood carnivores: Sammamish bobcat, Whittier Heights coyote, and Magnolia raccoon courtesy carnivorespotter.org. Camera trap bears courtesy SUCP, Woodland Park Zoo/Seattle University

Guess who's coming to dinner

Something wild and wonderful is unfolding in urban backyards all across Washington state.

To their housebound delight, COVID-isolated families have discovered a trove of wildlife living outside their kitchen windows. Many in the Seattle area are catching regular glimpses of coyotes, raccoons, and Virginia opossums. Up near the Cascades, they're seeing black bears and tassel-eared bobcats.

Normally unnoticed or ignored, these city-dwelling species are now the focus of the Seattle Urban Carnivore Project (SUCP), a joint venture between the Woodland Park Zoo and Seattle University that utilizes citizen science reports and camera trap data.

"The Seattle Urban Carnivore Project allows us to take a look at what species we have, where we have them, and how they travel," says Bobbi Miller ('84 Comm.), wildlife conservation manager at Woodland Park Zoo. "We try to incorporate that data into urban planning so as we expand, we can make sure we're allocating spaces for wildlife to move and live."

Miller had enjoyed an impressive career in the Los Angeles and Seattle music scenes before taking a part-time job at the zoo 12 years ago.

"Caring about animals was always in the back of my mind and as a kid, I'd wanted to work

at Woodland Park Zoo," she says. Once employed there, Miller loved it so much she went on to obtain a zoology master's degree.

Today, she is involved in the zoo's local and international conservation efforts for species as varied as tree kangaroos, pond turtles, and grizzlies.

Those efforts include the Seattle Urban Carnivore Project,



launched in 2019 by the zoo's Living Northwest Initiative along with the companion Carnivore Spotter tool, which lets the public report sightings at carnivorespotter.org or through a mobile app.

Miller says the SUCP collaborates with city and county land managers to place camera traps in green spaces stretching from North Seattle, Shoreline, and Bainbridge Island, east to

Issaquah. Eighty-plus volunteers routinely monitor the digital image cards and submit the data.

Together with reports from Carnivore Spotter, the information is compiled into detailed maps showing where each species lives. Those most adaptable to urban environments, such as river otters, tend to congregate around Seattle proper. Cougars

Information Network created by Chicago's famed Lincoln Park Zoo. The network is an alliance of ecologists and educators from around the globe who study the ways that wildlife adapt to and use cities. One of their primary goals is to collect data that helps urban areas deal with the struggles of managing human-wildlife coexistence.

are typically seen in the Cascades. Red fox sightings, though not verified, are sparse and usually noted north of Seattle.

"Since we posted Carnivore Spotter, we've had 4,500 reports as of November," Miller says. "I'm surprised at the number we get and how quickly people wanted to participate in this science."

Miller says their program is part of the Urban Wildlife

"The Seattle Urban Carnivore Project really allows us to reach out to people and help them understand how wild species are interacting with them and their pets," says Miller.

One example is dealing with contentious reports concerning cats and coyotes that are often posted on the social networking app Nextdoor.

"There's lots of pushback from communities who want

their cats to be outside and just as much from people who appreciate songbirds and don't want cats outside," Miller says. "Of course, there's this issue of coyotes killing cats but to that point, we're about to start collecting coyote scat to do diet analyses that will tell us what coyotes are actually eating.

"If the DNA analyses show that coyotes are eating rats and mice, isn't that a good thing? Isn't that what we want?" she asks. "These wild species play an important role in our environment and SUCP allows us to address concerns and dispel some common myths."

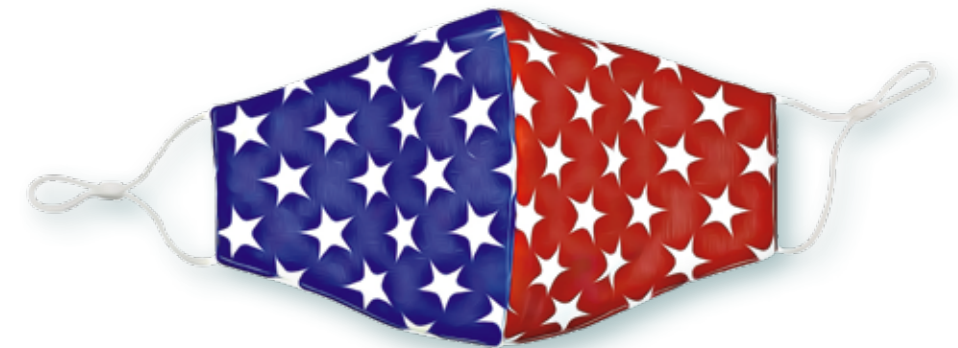
Miller says over the last 20 years, zoos have shifted their emphasis from entertainment to primarily education and conservation.

"We want people to understand that most zoos these days are really focused on conservation of species outside of the zoo walls," she says. "It may not be an elephant or Malayan tiger but if you're in Issaquah, you're living with bobcats, cougars, and black bears. If you're in Ballard, you're living with coyotes, raccoons, and opossums.

"We feel it's our responsibility to take care of species and habitats and be sure we're working directly with people who live with these species, whether that's Africa or Issaquah."

Miller hopes that programs like the Seattle Urban Carnivore Project will encourage people to leave a few more hedgerows or green spaces in their yards.

"Maybe you can leave some milkweed or downed limbs or put up bat houses," she says. "It's not just carnivores, but also pollinators like bees and butterflies. We're trying to take care of all those species who live with us." *



STAFF ILLUSTRATION

A pandemic's new norms

BY ALYSEN BOSTON

When it comes to wearing masks, partying, or just going to work at the office, Americans react a little differently based on which side of the political aisle they sit on.

Sociologists at Washington State University found both liberal and conservatives in the United States disapprove of individuals putting the health of their community at risk, but conservatives cared more about why those individuals were taking the risks in the first place.

Sociology professors Christine Horne and Monica Kirkpatrick Johnson asked Americans across the country whether they approved of actions like wearing a mask or stockpiling necessities.

"The more harm there was, the more disapproval there was," Johnson says. "People were more disapproving of social gatherings than they were about doing a job."

Johnson and Horne randomly assigned half of their respondents to read a scenario where an individual was putting their own health at risk, and the other half read about someone who was putting the health of the community at risk. They then asked the respondents whether people would disapprove of the behavior in the story and how much they thought liberals and conservatives would disagree.

"Conservatives cared a lot more about why you were violating a governor's order. They made a distinction if someone was breaking the rules to go to work," Johnson says. "More liberal people considered any

violation a violation, and the expectation was to stay home."

But both sides washed out and caricatured the opposing side, despite having similar values, Horne says.

"Both liberals and conservatives have this negative reaction to somebody that hurts the group, but we interpret harm differently depending on the cues we're getting from the environment," Horne says. "We attribute bad intent to each other and don't realize we're just having a disagreement on how this value plays out."

More than 1,000 respondents throughout the country were surveyed in April, when individuals and governments alike were still struggling with how to react to the pandemic, Horne says.

"There was a strong expectation that people would cover their faces, even in April, and there was strong disapproval of running into somebody without a mask," Johnson says.

Social norms are expectations for behavior shared by a social group, Johnson says, and people within the group police others to make sure these expectations are followed.

"A lot of our norms have moral components to them, like don't lie or don't kill, but some of them are just customs, like shaking hands or choosing a side of the road to drive on," Johnson says.

Horne recommends paying less attention to social media and to read high-quality liberal and conservative news sources to get a better grasp of why the two sides disagree, which can also benefit our relationships with people who don't share the same views.

"Social media feeds are exacerbating that tendency to think that other people are different from us. We tend to feel threatened when someone disagrees with us and our instinct is to defend ourselves," Horne says. "Instead, be curious about what the other person has to say instead of trying to make your point—and that is very hard to do, especially if the other person also isn't doing it." *

A race at the top

BY ADRIANA JANOVICH

The packing list included a pocketknife, sleeping bag for use down to -20°F, and snow boots for use down to at least -50°F.

Goggles also turned out to be essential. “My friend told me not to bother, but I went ahead and brought them anyway and, of course, I had a four-hour snowmobile ride. So I was glad I had those,” says Laura White, who had never ridden on a snowmobile before volunteering at the Iditarod Trail Sled Dog Race. “They tell you exactly what to bring right down to the cold rating. I actually think I was pretty well prepared.”

Not only did the 2020 Iditarod mark White’s first time on a snowmobile, it was also her first trip to Alaska. A clinical assistant professor and pathologist at the Washington Animal Disease Diagnostic Lab at Washington State University, White served

as one of the iconic race’s approximately 50 veterinarians. Last year, she was also the only pathologist.

The race kicked off March 7, four days before the global coronavirus pandemic was declared. The mushers’ awards banquet was canceled, and spectators were asked not to attend the finish. A couple of checkpoints were relocated farther outside of towns to help reduce the risk of exposure. And the second pathologist—slated to take over for White—was unable to make it. Despite those developments, she says, “there wasn’t much talk about (the virus) on the trail.”

The 975-mile northern route crosses two mountain ranges, runs along the Yukon River, and stops at 24 checkpoints. Sled dogs run about 100 miles and require ten to twelve thousand or more calories per day.

“It’s pretty intensive,” says White, who attended a three-day training and studied sled dogs and musher terminology for two months leading up to her arrival in Alaska. “There are very specific things that happen to dogs during a race like this. One of the biggest things we worry about is the dogs developing pneumonia.”

Mushers are ultimately responsible for their animals’ health and are required to carry a book that must be signed by veterinarians at each checkpoint attesting to their dogs’ well-being. Working in six- to twelve-hour and sometimes overnight shifts, White checked animals for four main concerns: dehydration, weight loss, respiratory issues, and muscular and skeletal injuries. She was also on call to cover pathology duties, if needed. Thankfully, no dogs died during the 2020 race, and she was able to focus on examinations.

Each sled is pulled by 14 dogs, but “mushers don’t finish the race with all of the dogs they start with,” White says. Dogs that are returned from the race are flown back to Anchorage and cared for at clinics, kennels, or a women’s prison, where select inmates watch over them until their owners or handlers can pick them up. The Dog Project started in 1974, a year after the first Iditarod.

The race traces its roots further back, though, to a historic emergency serum run from Anchorage to Nome. In 1925, mushers and their dogs braved blizzards and temperatures of -50°F to deliver medication to the town, which was suffering from a diphtheria outbreak. Today, the Iditarod, known as “The Last Great Race on Earth,” holds a celebratory start in Anchorage, then moves to Willow for the actual beginning.

Checkpoints are spaced about 30 to 60 miles apart. Early on, teams come in close together, making it hectic for veterinarians, who are paid a stipend based on their length of service. Lodging and meals are provided, but volunteers pay their own travel expenses.

A friend and former colleague recommended the experience to White, who was

intrigued by the opportunity and applied online. “It was a way to get to use my degrees in a way I don’t normally get to,” says White, originally from North Sandwich, New Hampshire. She’s worked at WSU Pullman for three years. Lecture is 25 percent of her appointment. Most of her responsibility lies in the diagnostic lab.

White plans to volunteer for the 2021 race, noting, “I will be going for the entire race this year, which I’m super excited about. There will obviously be some major organizational adjustments due to COVID, but the details are yet to be determined.”

Last year, White worked at two checkpoints at the Iditarod: Yentna Station Roadhouse, a wilderness lodge, and McGrath, an important transportation and economic hub in southwest Alaska with a population of 401.

“It was a whirlwind,” she says. “I was just sort of in awe of everything. There was no time to be a tourist.”

The plan was to take a small plane to Yentna, but conditions were too inclement to fly. That’s how White ended up on the snowmobile. “The trail was bumpy the entire way,” she says, noting, “It was snowing and dark by the time we got in.”

The first mushers started arriving around seven the next night and “were all gone by 3:00 a.m.,” White says. “They’re hardcore. The men who have beards come in just caked with icicles hanging from their faces. One of the things that’s really amazing is how, in those conditions, they still put the dogs first. They haven’t slept in who knows how long, and the first thing they do is make sure their dogs are fed and have water and straw for them to lie down on.”

That first shift, she says, “I hadn’t figured it out. I hadn’t layered appropriately. Even though it wasn’t that cold out—it was like zero degrees—I was exhausted and sore and couldn’t fall asleep. You don’t realize how tense you are. It’s not just your fingers and toes; it’s your entire body. I thought, ‘My, oh, my, what did I get myself into?’”

From then on, White says, “I wore two layers of long underwear at all times, and there were foot warmers and hand warmers, and, yep, I was still cold. I pulled an all-nighter in negative thirty, and it was the coldest I’ve ever experienced. I did not realize this: your stethoscope will freeze.” *

“This is the most bored I’ve ever been in my life”

BY ALYSEN BOSTON

With winter in full swing, children and adults alike are experiencing boredom as COVID-19 pandemic restrictions and weather are obstacles to traditional pastimes.



COURTESY APPLE INC.

Elizabeth Weybright, interim director of WSU Extension’s Youth and Families Program Unit, says boredom in teens and young adults had been on the rise before 2020, but the pandemic has worsened things significantly. “We know that there’s this broader dissatisfaction that adolescents are experiencing,” Weybright says. “We’re seeing it increasing in girls more than boys.”

Weybright began collecting data on boredom in March by following tweets that contained #COVID19 and “bored,” as well as following Google trends for the word, “boredom.” As schools closed, teleworking took off, and social distancing measures were implemented, Weybright and her team saw a steady increase in unique tweets that discussed boredom and how to prevent it. However, by May, mentions of boredom had decreased significantly.

Weybright also surveyed college students for a separate study, starting fall 2019 and continuing until May, and used that opportunity to ask the students how they were coping with boredom.

“People are saying things like, ‘This is the most bored I’ve ever been in my life,’” Weybright says.

While some of the respondents are using their extra time to get ahead in classes, others are having a harder time coping.

“Boredom derives from wanting to engage in a satisfying activity but not being able to do so,” Weybright says. “It can be internal reasons or external reasons.”

Some internal reasons can be depression or anxiety, but restrictions due to the pandemic are some of the major external reasons preventing people from engaging, Weybright says. Since adolescents are more aware of how they fit in socially, not being able to interact with their peers can affect them more deeply than other age groups.

“You have to acknowledge your adolescent’s developmental needs,” Weybright says. “Some parents are finding a group of people they are okay with their teens hanging out with.”

But Weybright also says that coping with boredom is an important skill for people of all ages to learn.

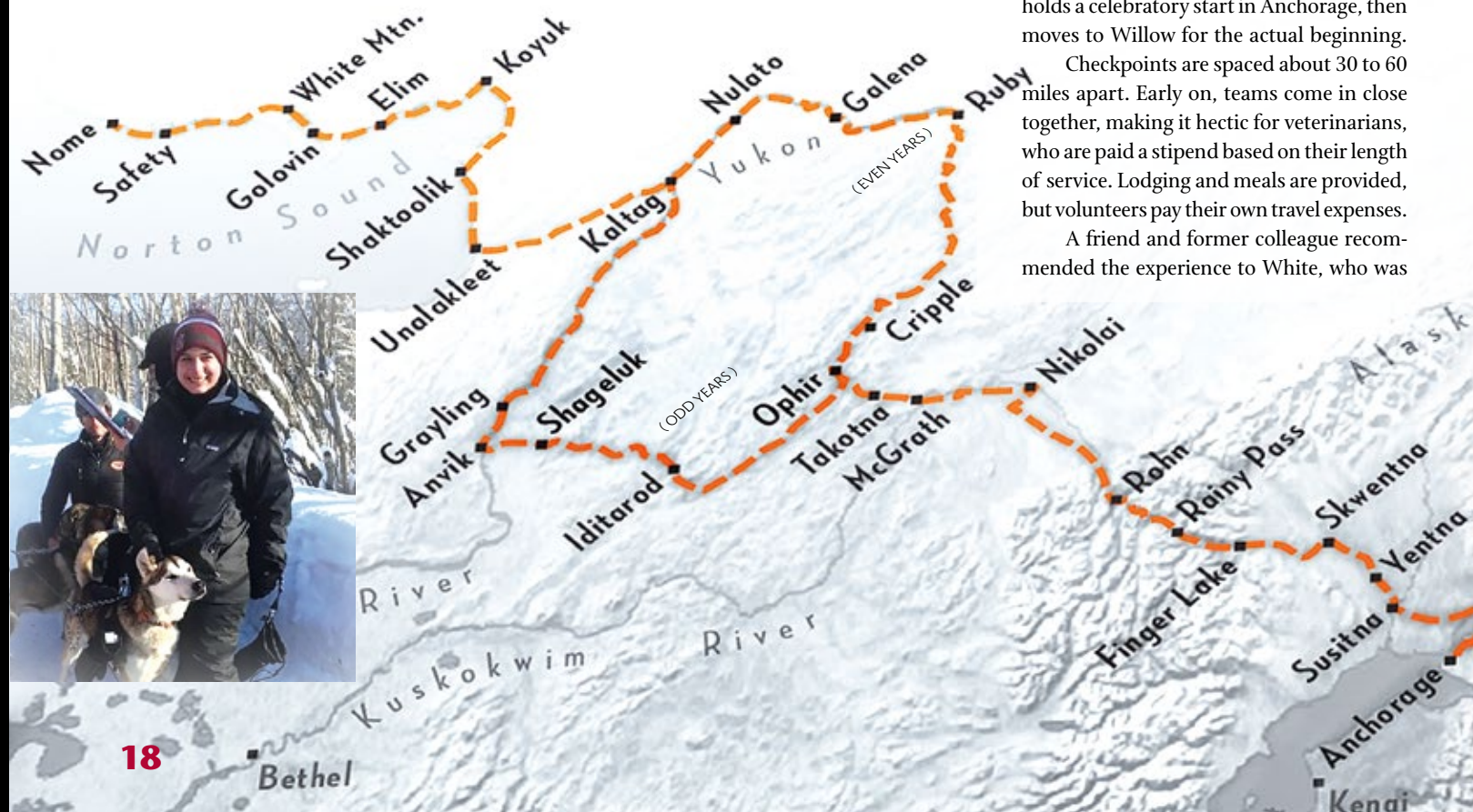
“Boredom is normal and not inherently good or bad. Like any other emotion, it’s just giving us information,” Weybright says. “Sitting with the uncomfortableness of being bored is a useful learning experience.”

Weybright says to tackle boredom, people should ask themselves why they’re bored and explore new pastimes.

“If I’m bored because I don’t have any place to go, can I develop a new interest? My energy levels have changed during COVID ... maybe I can find more things to do around the house that match my current level because everything is so hard to do right now,” Weybright says. “It takes some self-reflection.” *



ELIZABETH WEYBRIGHT (COURTESY WSU CASHNRS)



MAP: COURTESY ADVENTURE CYCLING ASSOCIATION
INSET: LAURA WHITE (COURTESY WSU WADDL)

Happier endings

BY ALYSEN BOSTON

Between 2016 and 2019, three people in the agricultural industry took their own lives in Skagit County.

Don McMoran, director of Washington State University's Skagit County Extension office, says the last death hit him especially hard because he had worked with the farmer in the Skagit Conservation District.



DON MCMORAN (COURTESY WSU/CAINRS)

"He was the epitome of the old crotchety farmer, but he was such a good guy," McMoran says. "I told my staff, 'I think we need to step in and do something about this,' and they were willing to fight the fight with me."

In September, McMoran and his team were able to secure a \$7 million Farm and Ranch Stress Assistance Network grant from the U.S. Department of Agriculture, expanding their suicide prevention work from just Washington and Oregon to 13 Western states and four U.S. territories.

McMoran's website, farmstress.us, provides resources and a hotline, 1-800-FARM-AID, for farmers or their loved ones. His team also hosts local programs on farmer suicide prevention.

"Be aware of the warning signs," McMoran says. "Maybe the farmer in your life isn't taking good care of the homestead, or the animals aren't being cared for like they used to. Notice signs of addiction, or if the person is wanting to give away their possessions."

Farmers face additional stress due to the nature of their profession, McMoran says. With many farmers having to borrow money to stay up-to-date and competitive, the financial stress can become overwhelming.

"When things start turning south and you can't make your payments, that puts pressure on you and sometimes it's perceived as easier to take your own life than it is to deal with the problems at hand," McMoran says. "It may come down to them just not being a farmer anymore. They may not want to hear that, but they have to understand that it's okay to not be a farmer."

McMoran says over the last 100 years, the prices of farming inputs—fertilizer, chemicals, tractors, equipment—have increased, but the price farmers receive for their products has stayed relatively flat.

"We pay the lowest price in the world for our food, which is a good thing, but at the same time we shouldn't have farmers wanting to take their own lives for being in financial difficulties," McMoran says. "We need to think differently about where our food comes from. Know your farmer, know

where your food comes from, and pay a little bit more for it."

Jennifer Sherman, an associate professor of sociology at WSU who studies addiction and poverty in rural communities, notes that access to health care is one of the biggest barriers preventing people from seeking help, though it is also coupled with the stigma of showing vulnerability.

"Most rural areas tend to be underserved," Sherman says. "Even people who do have health care and the money to pursue it struggle to access mental health care because there aren't enough providers in rural areas."

However, McMoran, a fourth-generation farmer, says a lack of providers isn't the main barrier keeping farmers from seeking help. It's the stigma.

"You can have a thousand doctors in their town, but they won't go because everyone in town knows what their pickup truck looks like," McMoran says. "Farmers are taught to have a stiff upper lip, be tough, and suck it up."

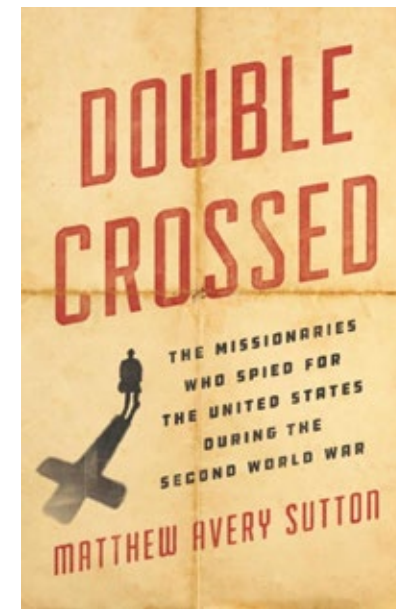
"You can't necessarily trust that things will stay quiet in a small town," Sherman adds.

Telehealth and call centers are a way to get around this stigma, McMoran says. His group is partnered with the WSU Elson S. Floyd College of Medicine, which is working on providing telehealth programs to rural, underserved areas. ✨



SCENE FROM IT'S A WONDERFUL LIFE (RKO RADIO PICTURES)

NEWmedia



Double Crossed: The Missionaries Who Spied for the United States During the Second World War

MATTHEW AVERY SUTTON
BASIC BOOKS, 2019

William "Wild Bill" Donovan formed the first U.S. foreign intelligence agency, the Office of Strategic Services, in World War II. He recruited a secret army, including clergy, "holy spies who fought around the globe for the sake of their God and their country." The role of those missionaries and other men of faith was kept under wraps for many years, even after the war's end.

In Double Crossed: The Missionaries Who Spied for the United States During the Second World War (Basic Books, 2019), Matthew Avery Sutton, Berry Family Professor of Liberal Arts and chair of the Department of History at Washington State University, tells for the first time the long-hidden history of those missionary spies. The following excerpt from the book introduces one such man, whose language skills and cultural knowledge led him to surreptitiously serve the United States in North Africa.

A most unlikely spy (excerpt)

William Alfred Eddy did not look the part of super spy. No movie mogul would have cast him as a James Bond or a Jason Bourne. The middle-aged professor had a limp, a receding hairline, a pudgy face, and an expanding waist. He also had a disarming smile, a deep laugh, and an eternally delightful sparkle in his eye. He served as a marine in World War I, and after the war, he dedicated his life to the cause of peace. He became a missionary, sharing the Christian gospel with students in the Muslim world. When the United States returned to war in the early 1940s, he again responded to his nation's call to serve.

Eddy joined a ragtag group of men and women who launched the United States' first foreign intelligence agency, the Office of Strategic Services. Leading the OSS was William "Wild Bill" Donovan, an irascible Irishman who had gone from marine to lawyer to politician to spymaster. Donovan sent Eddy to North Africa, where the missionary could put his knowledge of the Koran, years of practice speaking Arabic, and partnerships with Muslim leaders to good use.

Not long after hitting the ground in Tangier, Morocco, Eddy became the target of Axis intelligence agents. The skills he had honed as a missionary made him a marked man. An Italian spy tried to plant a bomb in his car, but Eddy's chauffeur was vigilant and kept him safe. A few weeks later, Eddy learned from a double agent working for the British that Axis spies were again scheming to "unobtrusively" slip a bomb into his vehicle. Eddy's American bosses warned him to take the "greatest precautions" or he would be returning home in a box.¹

Eddy was one of the OSS's most effective field operatives. Donovan had sent him to prepare the way for Operation Torch, the 1942 Allied invasion of North Africa, which was central to American and British plans for taking control of the Mediterranean. Eddy advised Generals George Patton and Dwight Eisenhower on the incursion strategy. He also recruited a secret network of local agents on the ground in North Africa. His most audacious undertaking included a plot to "kill," as he described it, "all members of the German and Italian Armistice Commission in Morocco and in Algeria the moment the landing takes place." In a straightforward and matter-of-fact memo, he told Donovan that he was targeting dozens of people. He additionally ordered the executions of "all known agents of German and Italian nationality." Never one to mince words, he called the proposal an "assassination program."²

To orchestrate the daring and ambitious plot, Eddy hired a team of Frenchmen. His "principal" hired gun was the father of a boy who had been imprisoned in Paris by the Germans. "The father," he noted, "is impatiently awaiting permission to carry out this assignment." Eddy wanted to ensure that no one could trace the assassinations back to him or the OSS. He planned to frame the executions as a "French revolt against Axis domination." "In other words," he explained to Donovan, "it should appear that the dead Germans and Italians were 'the victims' of a French 'reprisal against shooting of hostages by the Germans and other acts of German terror,' and not an OSS operation."³

Assassination plots were not the only thing on Eddy's mind. At about the same time that he was recruiting French hit men, he wrote to his family about the sacrifices he was making for Lent. He described the Easter season as "abnormal" this year. "I am certainly abstaining from wickedness of the flesh," he confessed. With his wife thousands of miles away, that was not too difficult. "I haven't even been to a movie since Lisbon, I don't overeat any more, and I allow myself a cocktail at night, but never before work is all done." At the time, he was attending services at the local Anglican church. The "small community" of congregants, he wrote home, knew that fellow

continued to page 50

Lamb & mint

A classic pairing

BY ADRIANA JANOVICH

BACKGROUND: THE END OF DINNER, JULES-ALEXANDRE GRÜN (1868-1934), OIL ON CANVAS, 1913 (WIKIMEDIA COMMONS) | INSET: RACK OF LAMB WITH MINT SAUCE (COURTESY WILLIAMS-SONOMA/YUMMILY)



IT'S A SURE SIGN OF THE NEW SEASON and one of the most CLASSIC PAIRINGS. Roast leg of lamb complemented with mint sauce simply sings of spring.

Herbaceous and refreshing, mint stands up to the richness of the naturally tender roast, which comes from sheep less than a year old and tastes unlike any other cooked meat. With its crisp browned surface and velvety, juicy interior, this dramatic-looking dish makes an elegant centerpiece for springtime suppers and celebrations. The bone-in leg of lamb's presentation is particularly impressive. Savory, succulent, and exquisitely flavored, lamb is high in protein, B vitamins, zinc, and iron, and contains very little marbling. Fat congregates at the edges of cuts, making them easy to trim.

Lamb was historically slaughtered in spring when mint proliferates. Drive through the Yakima Valley during growing season, and the air smells like the inside of a freshly brewed cup of mint tea—assertive, fresh, clean. One of the first perennials to arrive each spring, mint cuts through the heaviness of lamb. It's a traditional pairing, especially this time of year, and it has been for centuries and across cultures and cuisines.

In British fare, there's lamb and mint sauce, typically made from finely chopped mint leaves, vinegar, and sugar. A pinch of salt, citrus, and bit of boiling water are sometimes also added to the classic condiment. The 1828 *Modern Domestic Cookery* book from W.A. Henderson offered a simple recipe: "Wash your mint perfectly clean from grit or dirt, then chop it very fine, and put to it vinegar and sugar."

The pairing was actually made into law in England more than 200 years earlier. In the 1500s, Queen Elizabeth I decreed lamb or mutton must be eaten with bitter herbs as some sort of penance in her effort to discourage consumption and bolster the wool trade. But the mint made the meat, especially from older and gamier sheep, taste that much better.

The reason isn't just seasonal or historical. It's scientific. Mint is rich with branched-chain ketones, chemically related to the branched-chain fatty acids released during cooking lamb. Foods that share similar compounds and chemical structures taste better together, according to the 2011

article "Flavor Network and the Principles of Food Pairings" in *Scientific Reports*. If lambs consume fresh clover and ryegrass, they're going to pair even better with mint. This diet produces a particular compound that, according to *Scientific Reports*, chemically bridges the gap between the lamb's fatty acids and the mint's ketones with an aroma that further complements the pairing.

In the Middle East and North Africa, where sheep meat is an important protein, minted yogurt sauce is a staple. Tzatziki—a yogurt-based sauce with mint, cucumber, and garlic—is a classic Greek condiment for lamb. In fact, mint-olive oil dipping sauce dates to ancient Greece, where per capita lamb consumption today hovers around 30 pounds, about 30 times what it is in America.

Nearly one-fifth of Americans' lamb consumption occurs around Easter. Lamb is among the most popular symbols of the springtime Christian holiday. The season itself—with its blossoms, baby chicks, bunnies, and promise that everything can begin anew—symbolizes rebirth, growth, transition, and hope. Since ancient times, lamb has epitomized spring and served as a symbol of salvation and sacrifice, new life, and renewal.

Despite its traditional significance and bold flavor, lamb is largely underappreciated in America. The United States ranks third in the world for overall meat consumption, but American lamb consumption is very low at about 1 pound per capita, down, according to the U.S. Department of Agriculture's Economic Research Service, from 5 pounds at its peak in 1912.

Some blame World War II for its decline. U.S. troops who served in the European theater were fed musky canned mutton, or sheep more than a year old. It's fattier and carries a much stronger flavor than lamb. Upon returning home, American servicemen apparently eliminated both from their diets, keeping a generation of children from exposure to the distinctive-tasting meat. The numbers of U.S. lamb and sheep, which peaked in 1945 at 56 million head, now hover around 5 million, accounting for less than 1 percent of this country's livestock industry. By the mid-twentieth century, lamb had fallen off most fine-dining menus in America.

The American Lamb Board wants to change that, starting with its "Feed Your Adventurous Side" slogan. It aims to increase the demand for lamb by 2 percent annually for a total growth of 10 percent by 2022. Its strategy includes capitalizing on consumer interest in production practices, traceability, and buying local. To reach consumers, small lamb farms in particular have been turning to direct marketing, including local farmers markets as well as their own websites and social media, according to the Agricultural Marketing Resource Center at Iowa State University.

Today, there are about 101,000 sheep farmers in America. Their numbers have been inching up, thanks to an uptick in recent years of small-scale operations such as the 85-acre Mellifera Farm, co-owned by Walter S. "Steve" Sheppard and Colleen Taugher in Troy, Idaho. They specialize in hardy Icelandic sheep and keep a flock of about 40 animals, including 3 rams and 17 ewes.

"It's a primitive breed," says Sheppard, Thurber Professor of Apiculture in the Department of Entomology at Washington State University. He manages Mellifera's flock, pastures, and apiaries. "These Icelandics have been in Iceland for 1,000 years. They're good foragers."

Mellifera sells lamb by the whole animal through its website as well as word-of-mouth. They typically sell out each season. "There is something unique about the meat," says Taugher, who recently retired as director for global research and engagement in the Office of International Programs at WSU Pullman. "I think because people don't have it often, it's something special. It's something you have for holidays."

Because of its robustness, "You can pair it with a lot of big flavors. That's why it's fun to cook with. There are so many great dishes from different parts of the world where people eat lamb more often. It's fun to stretch yourself a little bit and try new recipes. I like to do a Moroccan-style tagine."

But her favorite way of preparing lamb is with a paste of mortar- and pestle-pounded rosemary, garlic, olive oil, and anchovies.

"You could substitute mint," she says. "It would be really good, too." ✨

DIYfiles

Can-do attitude

HOME CANNING HAD ALREADY BEEN MAKING A COMEBACK. THEN THE PANDEMIC HIT.

BY ADRIANA JANOVICH

Enjoying a jar of summer sun-ripened peaches in the middle of a freezing February is reason enough to can for Anna Kestell, who has been canning all of her adult life.

"I have to have my peaches," she says. "They are my most favorite thing. That's my go-to dessert: my own canned peaches with cream. That's my comfort food."

Also comforting: giving her home-canned garden-grown vegetables, jams, and jellies to friends as gifts. Kestell always includes the recipe and processing instructions. In her role as the food preservation and safety outreach educator at Washington State University Extension for Spokane County, she's been teaching people to can and answering their

home-canning and other food preservation questions for seven years.

In the last 10 years, she's noticed an uptick in interest, especially among young people whose mothers and grandmothers didn't teach them the once-ubiquitous skill. But, since COVID-19 lockdowns hit last March, interest in all forms of food preservation—particularly canning—has increased significantly, Kestell says. During 2020's peak season, "we answered about 50 questions a day. It was eye-opening for me. We honestly took as many calls during the season as we do in a regular year."

Perhaps more than ever in recent history, at-home food preservation has been on the forefront of people's minds. The persisting pandemic has made many consumers think more about their access to food and, at the same time, has drawn out people's pioneering spirits. Consumers have been making fewer and faster trips to the supermarket but buying more items, stocking up for winter at local farmers markets and farm stands, and harvesting their newly planted pandemic gardens, then wondering how to safely stow their bounty.

"The latest thing is freeze-drying," Kestell says. "Not everyone can afford to shell out upward \$4,000 for the machine, but freeze-dried food lasts almost 25 years."

One Spokane retirement community came up with an interesting solution. "Residents went in together on purchasing a unit and formed kind of like a club. People could reserve a time to use the unit, and they asked me to do a class on freeze-drying for them," Kestell says.

Sales of freeze-dried foods burgeoned during the early days of the pandemic, but so far there hasn't been a shortage of freeze-dry machines. However, home canning became so popular that many grocery and hardware stores ran out of supplies. The scarcity left people on the Palouse and around the country scrambling to find Mason jars, rings, and lids. Some retailers reported shortages as early as May and well into September and October 2020.

"I first noticed the shortage last spring when my calls from county residents were: 'Where can I find lids?' After a while I realized lids were the new toilet paper," says Kestell, who had purchased a bunch of canning sup-

plies on clearance at the end of the prior season like she usually does.

Her grandmother taught her how to can. Just about every summer and fall for the last 50 years, she's been putting up beans, salsa, seasoned meats, and more for winter and emergencies like Spokane's historic 1996 ice storm and 2015 wind storm. The feeling of self-reliance you get when you pop open a jar, Kestell says, "You can't put a price tag on that. It makes you feel good. It just does."

Home canning has experienced waves of popularity since becoming widespread during World War I. It maintained a steady following throughout the Great Depression, then, according to the U.S. Department of Agriculture, it went through a deep decline after World War II when the practice reached its peak. Since the do-it-yourself, back-to-the-land movement of the 1970s, though, home canning has been regaining ground. But not since the Great Canning Jar Lid Shortage of 1975 has Kestell seen such a shortage of supplies.

In many ways, she says, "People are moving back to the ways of Laura Ingalls Wilder's *Little House in the Big Woods*, but our 'big

woods' is the city. People are learning how to grow their own food in apartments or on small plots, decks, and patios. And they're wanting to preserve it."

Lids, also called flats, have been especially sought after because safety guidelines dictate they should be used only once for canning purposes. Reuse can affect the seal, which guards against mold and bacteria including *Clostridium botulinum*. Toxins produced by that bacterium cause botulism, a rare but fatal form of food poisoning linked to improperly canned foods, particularly meat and vegetables.

Improperly canned foods can kill you. That's one reason canning can be intimidating to beginners. The method also requires specific equipment, including—in some cases—a pressure canner. Decades ago, they were known to blow gaskets, spewing steam and boiling liquid, and causing third-degree burns. They don't make them like they used to—and that's a good thing, Kestell says. "You almost have to have a PhD to blow one up. They are so secure now because of all of the safety features that have been added."

While fear has kept some people from canning, it's also motivated many to take up or rediscover the practice. "There's certainly a little fear behind it," says Alice Ma, dietitian for WSU Dining Services. "We're seeing a lot of gaps in our food system. We're seeing people experiencing empty shelves and feeling afraid they won't have food."

Another factor causing people to learn to can: "It's something to do," says Ma, comparing the trend to the sourdough craze that took place early in the lockdowns. "Why not learn a new skill during the pandemic?"

Ma learned to can three years ago. She started with jams, fruits, and pickles, and has stuck with those staples largely because they don't require a pressure canner. In general, high-acid foods—such as peaches, tomatoes, cherries, and berries—can be safely canned in a water bath. "To have a summer fruit pie and that summer feeling in the middle of winter is really nice," says Ma, who taught an online introduction-to-canning class last summer to WSU employees through Human Resource Services' Coug Connect program.

For those still uncertain, she says, "Freezing is a great option." ✨



PHOTO PAMELA D. MCADAMS



How history offers comfort in a pandemic

BY NIKKI BRUEGGEMAN '13 HISTORY

The field I love is getting me through the pandemic. After college and graduate school, I wandered away from studying history. My life became filled with employment, relationships, and other distractions. My history books sat on shelves, ignored. Then, a virus began to spread across the world, and I found myself reaching for my books once again.

It is through this study of history, and specifically the study of the 1918 influenza pandemic, that I am finding hope. Through reading stories and articles, and finding connections, I am learning how similar our contemporary experiences are to those of the past. History has returned to my life, imparting valuable lessons in a time of coronavirus.

History is a reminder that you are not alone, and that bad times do not last forever.

As the COVID-19 pandemic trudged on, I began wondering how we could survive as a society. How do you survive when hundreds of people die in one day? I found myself curious how those in 1918 had managed the isolation, stress, and sorrow of a new virus. It was to my home of the Pacific Northwest that I looked for camaraderie. And I found it.

The first influenza cases in Washington state appeared in fall 1918, resulting in the city of Seattle locking down to contain the virus. In a *Seattle Star* article dated October 5, 1918, state Commissioner of Health T.D. Tuttle begged residents to use caution. After listing familiar recommendations like avoiding public gatherings and staying home if symptoms developed, the commissioner wrote, "We are asking you as a patriotic service to actually go into quarantine and stay there until all danger of spreading the disease is passed." Tuttle's words were similar to pleas I'd heard from Dr. Anthony Fauci, begging people to practice social distancing. It was not in medical advice that the familiarity ended. Parallels between 1918 and 2020 began to seep out of everything, especially when I found survivors' stories from around the country.

In 1998, *American Experience* aired interviews with those who lived through the 1918 pandemic. Their stories were heartbreaking. Survivor Anna Milani recalled, "In the street, there were crepes [ribbons] at the door. If it was a young person they put a white crepe at the door; if it was a middle-aged they put a black and if it was an elderly one, much older, they put a grey crepe at the door, signifying who died." Like those in 1918, death announcements have become part of our daily experience.

DERIVATIVE PHOTO FROM KUMWENI/FLICR

For COVID-19, we do not use traditional crepes. We use Facebook, Instagram, and Twitter to inform the world of our loss. Every day, it seems there is a new post announcing the death of a loved one, with people from around the world reaching out to offer comfort from places of isolation. Meanwhile, we all hope that it will never be our turn to post a digital crepe.

After reading primary sources like newspapers and interviews, the past does not seem so historic. Like us, people in 1918 self-quarantined, wore masks, and cancelled important life events to protect others. However, there was another important side to my journey through the 1918 pandemic that put everything into perspective: it ended. At some point, the fevers broke, the morgues stopped being overrun, and people left their houses. As Melissa Nicolas reminded me, after the pandemic came the roaring '20s.

"I think there's comfort in knowing that there was a pandemic in 1918 ... and the nation recovered. The nation found a way to make it through, they did come together," says Nicolas, associate professor of English at Washington State University, who is researching the 1918 pandemic. "I think if we had a better sense of our history ... we might not feel so desperate."

It's hard to feel hopeful when you gaze at death daily. When news broke that over 3,000 people died in one day, I felt something in my soul die and a certain innocence about good triumphing vanished. It was in moments like this that the stories of 1918 resonated the loudest. Survival does not mean moving on and forgetting, it means carrying the burden of memory. Those that survived influenza did not forget the pain and trauma, but they found ways of balancing it in their lives. And we will too. That's what makes the preservation of COVID-19 memories essential.

History reminds us to learn from the present and to ensure future generations do not forget. During the pandemic, I became an oral historian, preserving the stories of my communities so we would not go unrecorded. These stories will be housed at WSU Manuscripts, Archives, and Special Collections, so future generations can listen to the tales. When the world has gone mad, one of the hopes to cling to is that those who come after you will learn from your experiences.

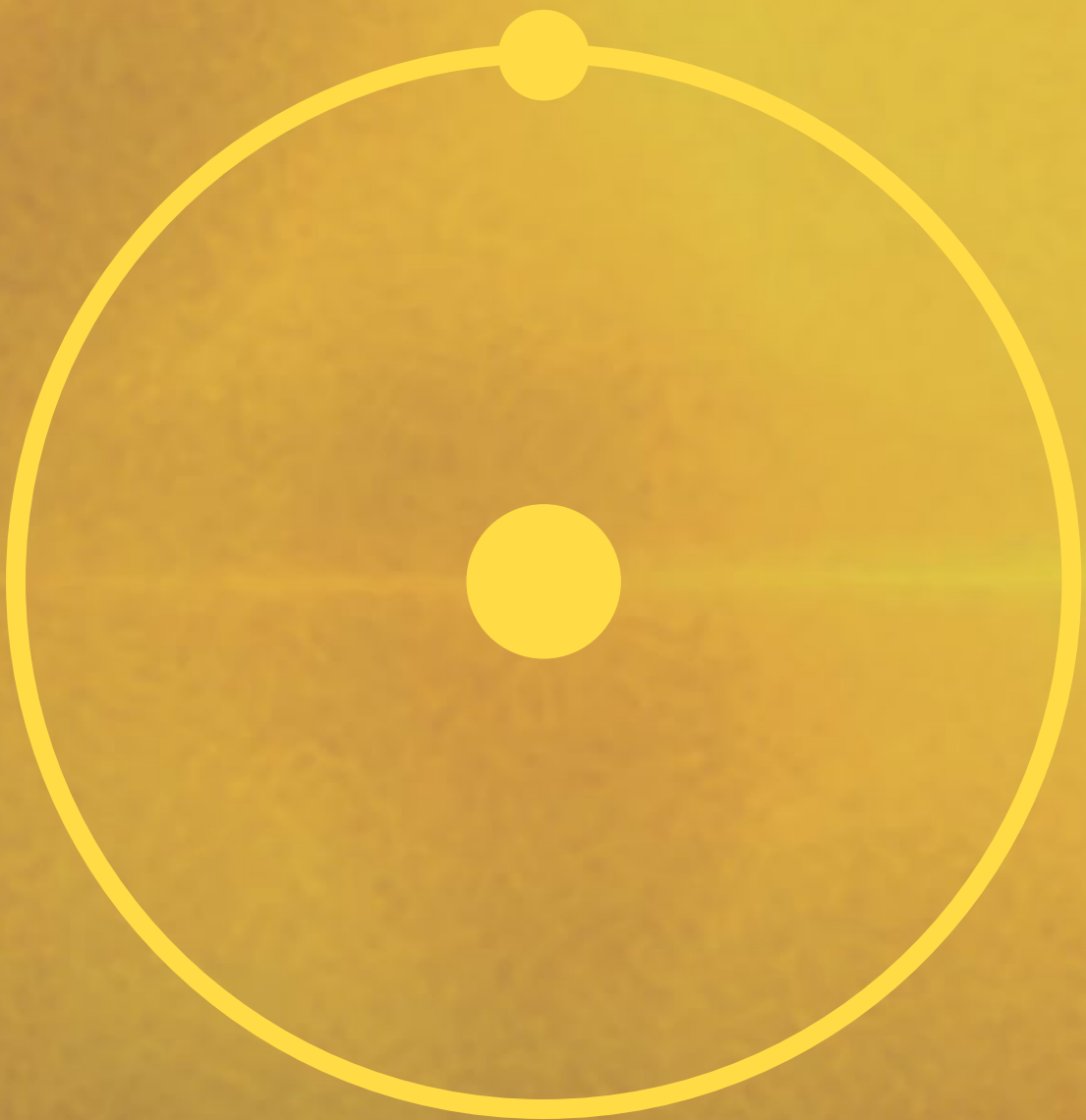
"I hope that we'll learn from the outrageous number of deaths that have occurred here, so that this doesn't happen again, so the next time there's a pandemic that Americans are more prepared," says Matthew Sutton, chair of WSU's history department. "I hope that Americans can figure out a way to have forthright discussions about science, health, and policy, where everybody at least begins with some of the same facts." Sutton is right, but for people to learn, we must protect these memories.

You and I carry the responsibility of telling future generations the story of COVID-19. We must take it upon ourselves to save newspapers, letters, journals, and photographs, assuring that they are passed down to those who will only know COVID-19 through history books. What we tell future generations about these days will fill in the gap that history education may miss. Those personal stories and insights are crucial. For many generations, history has centered the experiences of wealthy, straight, White men. It is the reason you know the name President George Washington, but are unaware of George Washington, the Black founder of Centralia, Washington. We do not tell stories like yours: the story of the accountant, the stay-at-home mom, the small business owner, or the high school teacher. With this pandemic, that must change.

As we think about the lessons to take from the COVID-19 pandemic, I implore you to inventory your experiences. Think about what you will tell your children, nieces, nephews, students, or younger coworkers. Remember your story: how you stayed inside for a year, how you had a wardrobe of masks, how you processed the news, and how you kept hope alive. Remember your story of surviving the pandemic.

For me, I find strength thinking about what I will tell young people. I hope they will listen and be proactive in ways we were not. Over the past year, my return to history has taught me the importance of gazing behind me for comfort and strength. With a bit of luck, those born in the coming years will do the same. ✨

Find Nikki Brueggeman's articles and oral histories, including the #DocumentingCOVID19 Project, at nikki-brueggeman.com.



STAFF ILLUSTRATION

BY LARRY CLARK

Circling back to hydrogen

It takes a lot of power to leave the planet. That same power can move us around the planet in a cleaner, more efficient way.

In one of the greatest displays of technological ingenuity in the twentieth century, the Saturn V rocket launched humans to the moon in a dazzling roar of flame and light. It took millions of pounds of thrust to push the giant rocket past Earth's gravity, and much of that thrust came from liquid hydrogen.

Hydrogen, the most abundant element in the universe and the lowest molecular weight of any known substance, burns with the extreme intensity necessary for rockets. Since it requires ultra-cold temperatures, NASA called the taming of liquid hydrogen in the 1950s one of its greatest achievements.

Now hydrogen fuel has come around in a much more grounded way. While it still plays an essential role in space exploration, the advent of advanced fuel cells and rapidly expanding, cheaper renewable energy have made hydrogen a future clean fuel of choice to drive many forms of transportation: trucks, airplanes, ships, and more.

Industry, governments, and the media have declared that the hydrogen economy's time has come. The market for hydrogen mobility is expected to significantly grow over the coming decade, with some estimates as high as \$70 billion by 2030, while hydrogen production costs fall.

Although the use of hydrogen to fuel vehicles is poised for expansion, obstacles could stymie rapid growth. The distribution, storage, and production of hydrogen fuel must ramp up for the full benefit of the clean and abundant fuel to be realized. Washington State University engineering researchers like Jacob Leachman and Ian Richardson ('11, '17 PhD Mech. Eng.) have been tackling those barriers for years, with some significant achievements already.

The Pacific Northwest is especially poised to benefit, with the region's low-cost and abundant renewable energy from hydropower and wind. Excess electricity can be converted to high-value hydrogen fuel.

"Washington state has the cleanest and cheapest clean energy in the world, and we need to do more to harness it and export it. That's where hydrogen comes in," says WSU mechanical engineer Dustin McLarty, one of the scientists who, along with entrepreneurs and industries, are working to build the hydrogen economy.

BELOW: A BOEING SUBSIDIARY INSITU HYDROGEN DRONE USES VAPOR-COOLED CRYOGENIC TANK TECHNOLOGY DEVELOPED BY WSU-FOUNDED STARTUP PROTIUM COMPANY AND THE HYDROGEN PROPERTIES FOR ENERGY RESEARCH (HYPER) LAB. (COURTESY INSITU)

origami in space—folding liquid hydrogen tanks benefit rockets: magazine.wsu.edu/extra/origami-rockets

THE ONCE AND FUTURE FUEL

The largest early project with hydrogen fuel took place in the shadows. In 1956–58, the U.S. Air Force ran the supersecret and expensive Project Suntan to develop a hydrogen-powered airplane. The project expanded on research into very high-altitude, hydrogen-powered flight during the first half of the 1950s, by groups such as Lockheed Aircraft's Skunk Works and United Aircraft. Although Suntan was canceled before completion, it led to development of the first hydrogen-fueled rocket engines.

NASA ran the space race on liquid hydrogen rockets. According to NASA historians, "Lack of Soviet liquid-hydrogen technology proved a serious handicap in the race of the two superpowers to the Moon."

Even now, liquid hydrogen is the primary fuel for rockets, as the many WSU alumni involved in space programs can attest, such as Paul Laufman ('61 Mech. Eng.), who founded United Paradyne that provided liquid hydrogen to fuel the space shuttle, Iris Fujiura ('83 Eng.) previously at Lockheed Martin, and Frank Picha ('90 Mech. Eng., '92 MBA) at the Jet Propulsion Laboratory. More recently, Ron Bliesner ('11, '13 MS Elec. Eng.), Leachman's first graduate student, works at Blue Origin.

However, in-depth research beyond rockets into the fuel, its storage, production, and other fundamental problems languished for many decades. It's one of the things that spurred Leachman, associate professor of mechanical engineering, to pursue hydrogen research.

He had been interested in energy since a high school class introduced him to "that whole idea that there is energy in all things around us that we can extract and convert to something useful." The inspiring teacher had Leachman and classmates light peanuts on fire to measure the energy needed to boil a cup of water. (It takes six peanuts.)

Leachman joined the WSU Voiland College of Engineering and Architecture in 2010 and started the Hydrogen Properties for Energy Research (HYPER) Lab. It's the only cryogenic hydrogen research laboratory in U.S. academia, and spans a broad range of technology advancement, including both basic science and applied tech like more efficient hydrogen liquefiers.

Back then, he didn't find a lot of open minds about the work. Leachman recalls a friend high up in the U.S. Department of Energy told him, "We won't build another hydrogen liquefier. You can't make a fiscal case for hydrogen liquefiers."

Since that time, there have been five announcements of major hydrogen liquefier projects in the United States because the price and demand of hydrogen has gone up due to the needs of materials handling companies.

"You had a case of an industry that had been resting on its laurels for a long time, and then, suddenly," Leachman says as he snaps his fingers, "the world changed."

It wasn't that the ideas were all new. "The whole idea of a hydrogen electrolyzer is quite



old," Leachman says. "We just haven't made enough to make them cost effective—until very recently."

One way to make them more cost effective is to shrink them. "We're making that technology even smaller and more compact so it fits in about an eight-foot-by-eight-foot cube. That is small enough to sit in a parking space and produce liquid hydrogen fuel," Leachman says.

Another factor pushing electrofuels—energy storage created primarily from electricity and abundant resources like water—is the need for cleaner, greener energy to mitigate climate change, while returning value.

"It's about economics because the cheapest energy in the world is solar and wind. And cheap energy drives economies," says

McLarty, an assistant mechanical engineering professor at Voiland College.

McLarty's WSU laboratory, the Clean Systems Energy Integration Lab (CESI), seeks synergistic benefits between new technologies and existing infrastructure. That can lead to cleaner power generation and permit greater use of renewable energy sources, such as making hydrogen fuel with excess wind power.

In addition to other research areas, McLarty works on fuel cells at a very high temperature, around 600–800°F, the opposite of Leachman's super-cold cryogenic work.

McLarty says a target application is a hydrogen supercharger that can be sited without any hydrogen infrastructure and without safety concerns. It would provide solid state hydrogen production and deliver fuel on demand into a vehicle fuel cell.

One challenge of hydrogen research is the relatively dull side of storage and distribution.

"People like to concentrate on what creates the energy—the engine, the fuel cell, the electric motor—rather than the thing that sustains it: the storage," Leachman says. "In the U.S., there's not a lot of research into making hydrogen fueling stations or storage tanks."

It's a gap that Leachman's former graduate student Richardson, now a postdoctoral researcher at WSU, wants to bridge.

Richardson and others at the HYPER Lab designed a transportable hydrogen fueling station to help with the rollout of hydrogen vehicles in California. He led a team of ten graduate and undergraduate engineers on the design of a containerized fueling station based out of a 40-foot shipping container.

Now, Richardson and fellow postdoctoral researcher Patrick Adam ('17 PhD Mech. Eng.) have developed a new design for a lightweight liquid hydrogen fuel tank.

"We quickly realized if we were going to have a small liquid hydrogen tank, there are no small liquid hydrogen fueling stations on the market," Richardson says. "The smallest one is an industrial plant that makes 1,000 kilograms a day. We're talking about making 1–2 kilograms a day."

Richardson and Adam plan to test the system at WSU this year and are working on commercializing the technology through their startup company, Protium.

WSU hydrogen research couldn't come at a better time. Some studies suggest green hydrogen could overtake gas and coal as the most cost-effective energy before the end of the 2020s.

According to Bloomberg New Energy Finance, there are over \$90 billion worth of hydrogen projects in the global pipeline, although not all of them are "green," or produced from renewable energy. There are also dozens of green hydrogen electrolyzer projects in the works with a theoretical combined capacity of 50 gigawatts.

Spain aims to bring 4 gigawatts of hydrogen electrolyzers online by 2030. Saudi Arabia is building a green hydrogen facility capable of producing 650 tons of green hydrogen fuel a day.

Korea and Japan have had hydrogen investment and policy plans for a while, including encouraging hydrogen fuel cell vehicle production like the Toyota Mirai and Hyundai Nexo SUV.

Many other countries are also pursuing aggressive green hydrogen plans worth billions of dollars, including the United Kingdom, China, France, Norway, and especially Australia, where a massive 15 GW renewable project is under way to make hydrogen and ammonia.

Analysts at the Bank of America predict green hydrogen could make up 24 percent of our global energy needs by 2050.

POWER FROM POWER

Although electrolysis is nothing new, as many of us might remember from high school chemistry classes, the potential of splitting water into hydrogen and oxygen to create a valuable fuel is rapidly expanding.

One of the recent proponents is Douglas County Public Utility District in Wenatchee. It partnered with diesel engine manufacturer Cummins, one of the largest producers of electrolyzers in the United States, to build the largest proton exchange membrane electrolyzer in the country, a five-megawatt system.

In 2019, "Washington passed a bill allowing public utilities to generate hydrogen and sell it as a commodity," Richardson says. "It is a game changer for the industry. The biggest

cost in producing hydrogen is electricity. If you're already producing the electricity, the cost of producing hydrogen becomes competitive with the cost of gasoline."

It also benefits hydropower producers to use the excess electricity during wet seasons. The same holds true for wind power, which can potentially direct electricity that won't make it to the grid to make valuable hydrogen.

"It's worth more as a fuel for transportation. Hydrogen can be 40 times more valuable than the electricity itself. The prices people are paying for liquid hydrogen are through the roof," Leachman says.

McLarty notes that storing energy for any length of time also boosts hydrogen above batteries. "There's not enough lithium in the world to do what we want to do with batteries," he says. "They're terrific when integrating with solar to get from one day to the next. But when you intend to store energy for any period of time, their efficiency plummets."

"If you wanted to shift 10 percent of the state of Washington's energy from the wet season, with all the extra hydropower, to the dry season, you would need every battery factory in the world and every battery they make for the next 35 years."

PLANES, TRAINS, AND AUTOMOBILES

Once green hydrogen is produced from renewable sources, it's ready to charge up fuel cells for any number of uses. And the demand is heading straight up, particularly for transportation.

Almost all current demand is being driven by warehouses at Walmart, Amazon, and others. "Thirty percent of all the groceries in the U.S. are moved with fuel cell forklifts fueled by liquid hydrogen," Leachman says.

Any time material is moved—whether it be via trains, ships, earth movers, or semi trucks—the energy density of hydrogen fuel makes sense. "When it comes to realistic long-haul trucking, batteries are out. You'd be hauling more batteries than goods," says McLarty.

Recently, German auto giant Daimler, which has worked with hydrogen for decades, announced a long-haul semi truck powered by hydrogen fuel cells with a range of 600 miles per fueling.

Another place where hydrogen fuel cells make sense: farms.

"I think a combine is one of the best uses of fuel cells because it drops the temperature the fuel cell is running at. Reducing the heat from internal combustion engines is one of the best ways to reduce fires on farms," says Leachman.

Farms could also generate hydrogen fuel, if smaller scale production and storage facilities like those being developed at WSU are available.

One of the most successful uses in the hydrogen economy is where "you have a lot of vehicles moving really quickly 24-7," Leachman says. "That's when the rapid recharge time of a hydrogen fuel cell makes a difference. It's like the difference between dial-up and broadband."

In hub and spoke models like ports, where goods come in and go out at a rapid pace, the quick recharging of vehicles can be very effective. In Europe, Asia, and California, seaports are already implementing the technology. The Port of Long Beach, the second-busiest port in the United States, already has a fleet of ten hydrogen-powered Kenworths, built by Bellevue-based PACCAR, and a hydrogen liquefier to refuel trucks, cranes, forklifts, and ships. Multiple ports along the I-5 corridor are looking at doing something similar.

High above, aviation is also ripe for hydrogen fuel due to its low weight.

"The mass part is particularly important for aviation. That's one of the reasons you see so much excitement around liquid hydrogen for aircraft. It's three times higher energy per weight than any other fuel," says Leachman.

European aerospace company Airbus revealed three zero-emission, hydrogen-fueled aircraft last September. The company is shooting for the early 2030s for the planes.

"Airplanes make sense, especially when they're on the ground," Richardson says. "They have to run the engines as they're taxiing just to keep the cabin comfortable. With short flights, they spend more time on the ground than in the air. So they burn a lot of fuel just to keep the air conditioning and lights on."

In Washington state, Boeing is already testing hydrogen fuel with WSU by including it in tests of their unmanned aircraft (UAVs)

and drones. Once they get flight hours in the air and build up a culture of safety, then they could continue to phase up.

Leachman and Richardson work with Boeing UAV-making subsidiary Insitu that makes drones for civilian and military applications. The researchers flew the drone on gaseous hydrogen and tested liquid hydrogen tanks on the ground. WSU built the hydrogen liquefier that can be moved anywhere the fuel is needed.

The WSU researchers already have proven success with UAVs and hydrogen. The HYPER Lab flew drones powered by hydrogen fuel in 2014. Current projects with Insitu expands on that work, and the research team had successful tests of a full fueling system last summer.

“It’s a different design concept meant for a fill and fly, as opposed to traditional liquid hydrogen tanks where you just fill them up and you leave them for days or months until you are ready to use it,” Richardson says. “This is the new way hydrogen is being used in vehicles, whether those are drones, air taxis, or ground vehicles.”

The U.S. Army is funding much of the UAV research, but civilian drones—with their 8–10 hour flight time—could also do work like inspecting rail lines and pipelines, notes Richardson. They could also provide real-time imaging of wildfires, giving information to first responders and firefighters to help make decisions. They might assist with package delivery, or hazardous work like inspecting dams, tall buildings, and cell towers.

On the water, maritime uses of hydrogen fuel could be adopted even sooner, also thanks to the fuel’s low density and absence of emissions.

“One of the early targets gaining steam is commercial shipping. It wasn’t seen as an early market because these folks pay the least for energy than anybody in the world,” McLarty says. “They buy the bunker crude, the stuff no one else wants.”

McLarty notes that companies are looking at ships with a 40-year lifespan and need fuel for the future. They also need consistent, low-emission fuels due to varying regulations at ports around the world.

Another promising area: offshore wind production.

“The size of these offshore turbines is staggering. The base of each tower can have a chemical plant, where you have a tender ship that comes and pulls that fuel off. That tender ship pulls up next to a cargo ship steaming across the ocean, refuels it on the fly, and goes back and gets another tank of fuel from the wind turbines,” McLarty says.

The hydrogen could fuel ships in a number of ways: liquid hydrogen at cryogenic temperatures, ammonia produced by attaching a nitrogen molecule, or the benzene-cyclohexene cycle. Benzene is a hydrocarbon that can absorb extra hydrogen and become cyclohexene. Then a little heat releases that hydrogen on the boat and it turns back to benzene. In that case, the tender offloads one fuel and reloads the charged fuel.

The emissions-free ship *Energy Observer* is sailing around the world as a proof of concept. It looks like something out of Waterworld, Leachman says, and uses a combination of wind and solar power, then makes and stores hydrogen in pontoons for use during storms and cloudy days.

THE NORTHWEST CONNECTION

In Washington state, Tacoma Power and the Port of Tacoma announced an electrofuel tariff pilot project with specific rates for producing hydrogen that can run equipment and possibly ships coming to the port.

“Washington is home to manufacturers of transportation equipment in almost all sectors,” Leachman says. For example, he points to All American Marine in Bellingham and its first hydrogen fuel cell ferry for San Francisco Bay, Boeing’s aviation tests, and PACCAR, which took a Kenworth hydrogen truck to the top of Pikes Peak and back. In the booming material handling sector, Plug Power has its west coast office in Spokane.

The rapid growth is ripe for entrepreneurs, such as Richardson and Adam’s company Protium. Richardson’s postdoctoral fellowship was funded by the Washington Research Foundation, which aims to commercialize technologies out of state universities.

Protium is looking at developing a smaller scale liquid hydrogen tank, with a

heat exchanger built into the walls of the tank to regulate temperatures. They also work on a refueling station the size of a shipping container.

Richardson explains that the refueler “takes in water, purifies it, and puts it in an electrolyzer which splits the water into hydrogen and oxygen. We cool that hydrogen down with a cryo-cooler, basically a souped-up refrigeration cycle, then we liquefy that in a vacuum-jacketed dewar that’s commercially available.” All safety systems are built into the equipment.

One innovation from Adam is a 3D-printed tank. He found a polymer that can survive at the temperatures of very cold cryogenic hydrogen.

“If you talk to people in this industry, they think we’re nuts and that there’s no way you’re going to find a polymer that can hold liquid hydrogen,” Richardson says. “But so far, it’s holding just fine” at the small scale.

Moving hydrogen tech into the market is exactly what we need, Leachman says.

“The University isn’t about making money from technology. We’re supposed to supply the pitchforks and shovels and give direction and a way to go,” he says.

Another key part of the HYPER and CESI labs is educating students to work in industries and further hydrogen research. “We need a lot of students trained up in this area. There haven’t been a lot of people educated in cryogenics and hydrogen in the U.S.,” Leachman says.

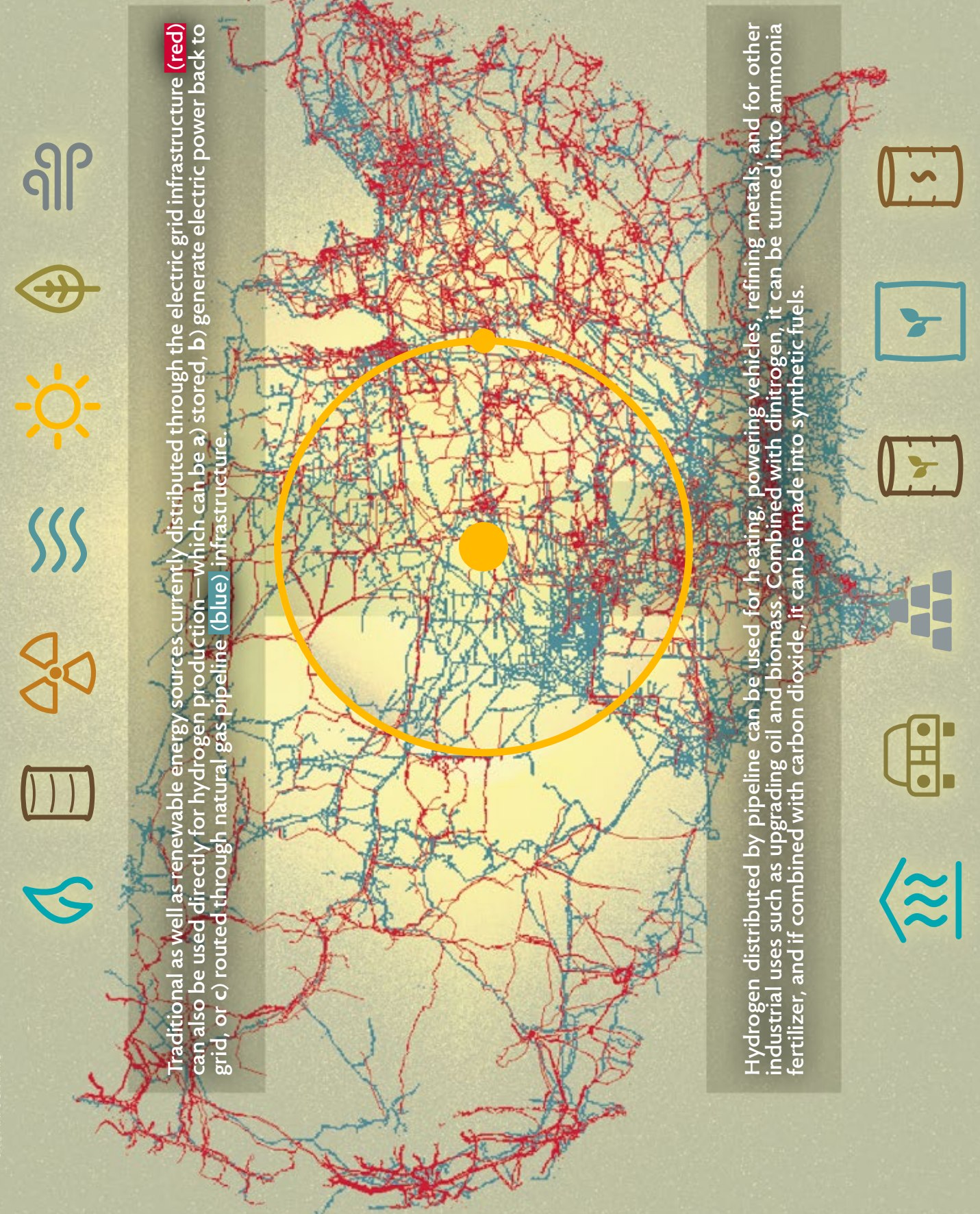
He has close to 30 undergraduates and 9 graduate fellows working in the HYPER Lab. McLarty’s CESI lab also provides research opportunities for undergraduates and graduates interested in renewable energy and future fuels.

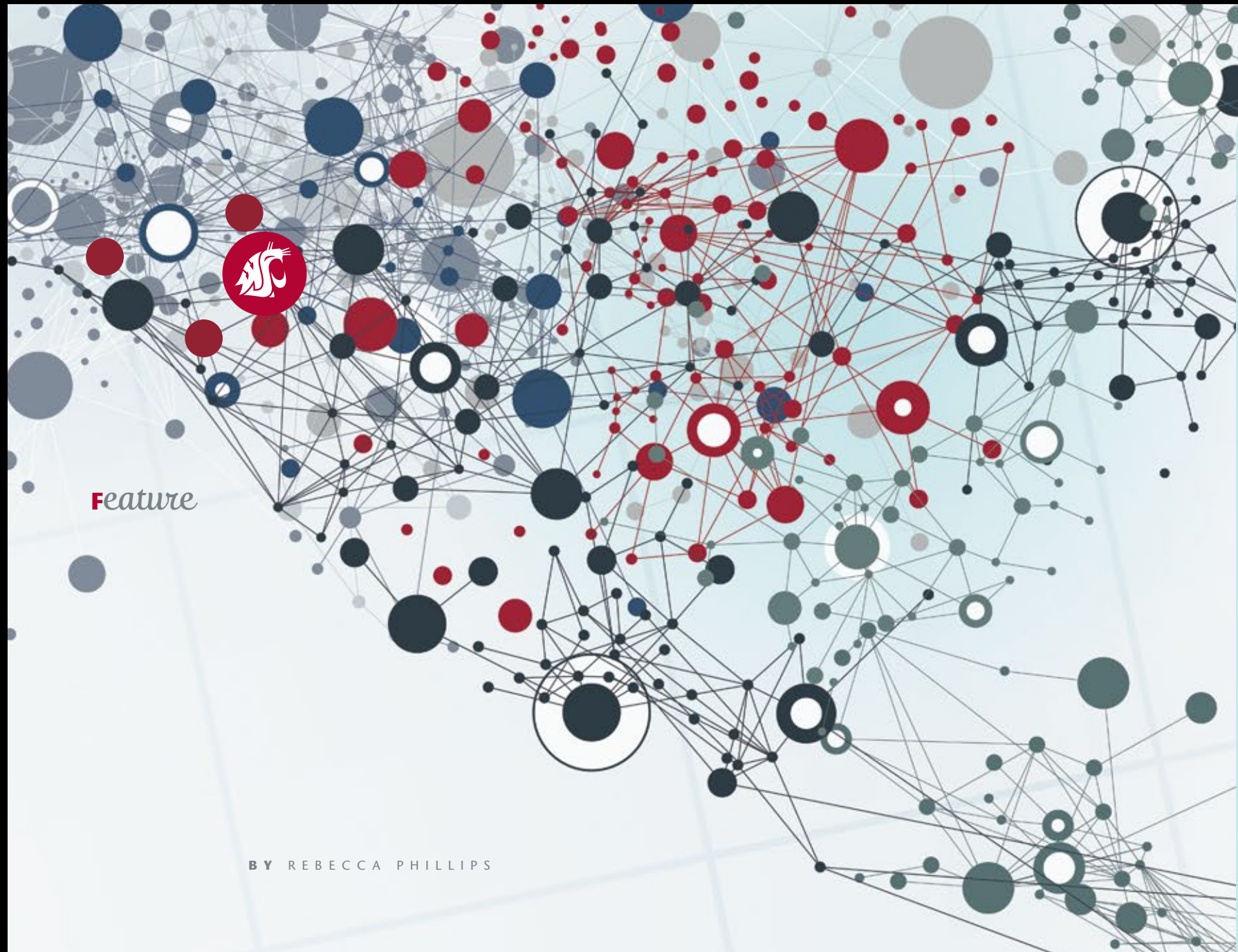
The Northwest, Leachman says, is primed for the industry.

“We produce double the electricity we need,” he says. “We now have this incredible potential to generate hydrogen, a renewable energy that keeps the money in our region and reduces the amount of money to import dirtier energy products like fossil fuels.

“Our clean energy future can and will come in many ways. Putting all of your eggs in one basket, that’s never been conducive to resilience long term.” *

STAFF INFOGRAPHIC





From his apartment in Belgrade, Serbia, Nikola Koprivica ('10 Intl. Busi.) smiles at the webcam as he shows off his WSU T-shirt.

"It's been 10 years since I left Pullman," he says. "Those were great times, I tell you. I miss the Palouse a little bit."

Koprivica was a popular WSU basketball player, ending his career with 85 wins and twice selected for the Pac-10 Conference All-Academic First Team. After WSU, he played professionally in Greece and Serbia and is currently the international talent scout for the Detroit Pistons, a job that normally entails constant travel.

"Now, with COVID, I've never been home this much," says Koprivica. "This is crazy. But here, we're the kind of people who have been through wars and all kinds of stuff. We adjust and wait for it to open up."

Indeed, as COVID-19 infections rose and fell throughout the world last fall, *Washington State Magazine* reached out to Koprivica and other Washington State University international alumni to see how they were holding up.

With an email questionnaire and interviews conducted by Zoom, phone, and Skype, the responses came in from ten countries on six different continents. From New Zealand and Colombia to Sri Lanka, Egypt, and Canada, each person shared their insights and ongoing struggles with the pandemic.

Lockdowns, curfews, economic collapse, and stress were common themes. Many reported using the skills and knowledge gained while studying at WSU to help their home nation and local communities recover.

Together, their voices blend into one global human experience interwoven with an enigmatic touch of Cougar Spirit.

Koprivica says last winter, he and his friends began hearing about COVID but didn't take it seriously. Serbia's first official case was documented on March 6 and by the end of that month, the government had shut the airport and imposed a lockdown. Police patrolled the streets.

"There was a curfew from 5:00 p.m. until 5:00 a.m. Monday through Friday where everyone had to stay in the house," he says. "And, every weekend, the curfew was 5:00 p.m. Friday until 5:00 a.m. Monday morning. You could not go outside at all or you'd be fined or arrested."

"We are really social people—I like to have a coffee, talk, whatever—and then, the whole world shut down. Don't touch anything. No talking. People tried to occupy their minds as the situation is depressing for everybody. Like in America, many are losing jobs here."

"For me, it was good as I had a lot of work. I can watch basketball on the computer. I started playing PlayStation for the first time since college too. I spent so much time on the phone that I had to charge it twice a day."

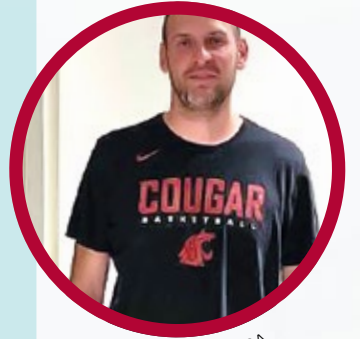
Then, in June, Koprivica's whole family got sick. "We were down to such small numbers of COVID infections that people relaxed and quit worrying," he says. "But within one week, me, my best friend, mom, dad, and brother all got it. I had a fever for a couple days plus symptoms of dizziness, tiredness, and body aches like a regular flu. But when I started losing my sense of smell, I thought, 'Ah, this is probably it.' And, I tested positive. A friend said I should also get a lung scanner, so I did, and it showed pneumonia in both lungs."

"Honestly, I didn't really feel anything, maybe a little shortness of breath but you don't know if it's real or if you're trippin'," he says. "The COVID hospital told me to recover at home and they rechecked my scan every week. After a month, they cleared me."

"We are pretty back to normal now except people wearing masks," says Koprivica.

"Yet, I think people are starting to realize that there's something so much bigger—something that can literally collapse the world in such a short time and people are not ready for it. You see how vulnerable you are. And, especially here, people are turning away from the cities. They're going out to farms and small villages to have somewhere to go if COVID ever comes back again."

"For me, I spend a lot of time on my little farm in south Serbia where I raise hazelnuts," he says. "It's so peaceful. I put the phone inside and wander outside hearing nothing but the birds. It's amazing how fast your mind rests."



NIKOLA KOPRIVICA

"ABSTRACT NETWORK WORLD MAP" ILLUSTRATION BY AE STUDIO | PHOTOS COURTESY RESPECTIVELY

Feature

BY REBECCA PHILLIPS

distanced but connected: our global pandemic stories





JAVIER ANTONIO BENAVIDES MONTAÑO

Javier Antonio Benavides Montaña was booked on a flight to Germany for a parasitology conference on March 13. It was also his birthday.

“But that day, Colombia closed the borders, set up a strict quarantine, and my trip was cancelled,” says Montaña (’17 PhD Immunology and Infectious Diseases) who teaches preventative medicine at the National University of Colombia in Palmira.

“It was disappointing, but I have a positive spirit, and I love to confront challenges,” he says over a cup of tea on a Zoom chat. One of his first challenges was switching to online technologies like Google Classroom and Google Meet to complete the academic semester.

“In the beginning, the students protested,” he says. “But they adapted and tried to connect from different towns. I taught them to follow critical protocols such as social distancing, washing their hands, and using a mask.”

Though Montaña says their government has done a good job of containing the coronavirus, at first, there was a heightened sense of confusion.

“People said, ‘We’re not prepared for *pandemia* in Colombia!’ But I had studied Nipah virus at the Paul G. Allen School for Global Animal Health at WSU, so I know how the coronavirus propagates and could share my experiences,” he says. “I also know the technology and said we need to start educating people, so I made videos and held seminars to explain things like, ‘What is a virus? What kind of conditions does it live in?’

“Colombian people are so folkloric and did not take it seriously,” says Montaña. “Dancing and social parties were not an exception. People did not behave correctly and when many died, they finally changed behaviors.

“Fortunately, I did not get COVID-19, but some students did, and they described each case at Google meetings during my classes, asking other students to take care.

“Overall, I’m a very optimistic person but during the initial lockdown, I was in a depression,” he says. “I suffered some kind of anxiety because in normal times, I’m very active with meetings and friends. Then, suddenly I couldn’t go anywhere or see people.

“Keeping indoors has caused a huge amount of stress and problems for many people, especially relationships with kids and family. Many couples broke up and others are trying to get their own apartments as there is too much drama.

“I’m happy to live alone right now,” he says. “I don’t feel as responsible for potentially exposing others to COVID.”

After a month, Montaña was allowed to exercise outside and soon he was developing the conferences and seminars that happily kept him busy.

“Many people called me to be on radio and TV asking, ‘What do you think about chloroquine? Do you think animals can transmit COVID?’” he says.

“I try to help them learn that science is not so easy, and we need to keep studying but people just want to know, ‘What is the cure?’ We need to be prudent in these situations and try to give them knowledge.

“I say we have many alternatives, so don’t panic. We need to keep hope that the future will be better, so don’t be scared.”



NICOLA PERERA

“We’re in the midst of a second wave or an extended first wave of COVID—it feels like a never-ending tsunami!” writes Nicola Perera (’15 MA English) in an email from Colombo, Sri Lanka.

Perera works at the University of Colombo and says that although Sri Lankans are familiar with curfews from recent civil war years, the extended curfew of the COVID-19 lockdown was extraordinary.

“Initially, the government raised the curfew for a half-day in which people trudged over several hours under the sun to their nearest supermarket to stock up on emergency groceries,” she writes. “Eventually, the government organised deliveries of essential items to neighbourhoods.

“After a few weeks, it was possible to have sushi delivered to your door as well as rice, vegetables, and flour. So, if you were among the fortunate minority guaranteed job security and a paycheck to weather lockdown, then you watched the headlines and spent more time than usual over the stove.

“However, for many people dependent on daily wages, lockdown meant worrying about rent and where the next meal was going to come from,” Perera writes. “The government did organise donations of cash through local officials, but it was an insubstantial amount and many families fell through the cracks.

“The government has also stranded a large number of people who were working abroad as domestic aides or in factories. The money they send home is the largest source of foreign income to the Sri Lankan economy. These people have lost their jobs and are sleeping in streets and parks, with no way of coming home. At the same time, there’s a segment of Sri Lankan expatriates who are being repatriated in luxury hotels for the quarantine period.”

Although Perera has remained healthy, she worries about coming into contact with asymptomatic carriers and of becoming one herself. During lockdown, she relied on phone, email, and Facebook to keep her sanity but says it also meant “struggling to keep from climbing the walls and getting on the nerves of those around you.”

“My mother nearly burnt our kitchen down,” Perera writes. “She was staying with us while she recovered from severe ill-health and left a saucepan of hot oil unattended on the stove. The next thing we knew, the cupboards above the stove were ablaze. No one was hurt. The cupboards were charred. Our nerves are still frayed.”

distanced but
connected!
our global
pandemic
stories

It's 7:00 a.m. in Hong Kong and Jackson Fu ('16 Hosp. Busi. Mgmt.), is cheerfully asking about WSU. "When I see Instagram pictures of Bryan Hall or the cougar statue, I kind of miss the good old days," he says over Skype.

Fu is the member relations officer for The Great Room, a Singapore-based real estate company that offers flexible shared workspaces with the added benefit of a hospitality service.

"Right now, coworking spaces are trending because of the pandemic, and businesses are downsizing," he says. "We rent small offices to start up companies or those in need of temporary space during renovations."

Fu had been working as concierge for the Grand Hyatt Hong Kong, a five-star hotel, when the coronavirus first began spreading.

"Hong Kong is kind of the world's financial center with lots of yearly conventions," he says. "Many of those meetings were cancelled as no one was traveling and occupancy rates dropped significantly. Hong Kong relies on tourism, so everyone has been doing a lot of virtual exhibitions to keep things running."

Fu explains that Hong Kong was the center of the SARS outbreak in 2003, so residents are extremely vigilant.

"The SARS death rate was super high—once you get it, you're done," he says. "So, when COVID hit back in January and February, everyone knew what to do. We bought masks right away and cleaning supplies. We didn't have to wait for the government to step in."

"By late March, 80 percent of the population was working from home unless they were part of the necessary sector and had to go to work."

Hong Kong experienced a second wave in May and a third wave in July that Fu says brought nearly 100 new cases per day, a serious threat to the densely populated city.

"We still have high COVID infection rates. We had mass testing just last week to try to find the hidden spreaders, those asymptomatic people with no visible signs of the virus," he says. "But, gratefully, all of my family members are doing well. We take extra precautions because we have my 100-year-old grandma living with us."

For Hong Kong residents who land at the airport, Fu says there is a mandatory 14-day quarantine either at a COVID camp or a home quarantine. "You can't leave your house for two weeks or there will be criminal charges and you have to go to court. The government gives you a wristband that can track you to make sure you are actually in your building area."

"Also, the public sort of monitors the situation as they know wristbands mean you can't leave the house," he says. "As a collectivist society, 90 percent of people here have self-discipline and care about community well-being. They wear masks and carry a spare in case they see someone who needs one."

"Hong Kong has a population of about 7 million people who all live in tiny apartments," says Fu. "In normal times, they can just act like the U.S. individualism—everyone's minding their own business. But when a problem happens, we come together as a group really quickly to support and help each other. That's the beauty of Hong Kong."

TUARIKI DELAMERE



Tuariki Delamere ('74 Acc., Math.) turns his laptop to show me the bucolic farm scene outside his window. It's springtime at his home on the slopes of New Zealand's majestic Tararua Mountains.

The farm is Delamere's safe house while New Zealand battles its second wave of COVID infections—a nation that leads the world in successful control of the virus.

The former WSU track star is famous for his wicked sense of humor and flashy forward somersault during the long jump. As a member of one of New Zealand's indigenous Māori tribes, Delamere rose to prominence in Parliament and also served as minister of immigration. Today, the avid Cougar football fan runs an immigration consultancy in Auckland.

"I was in Auckland when the pandemic arrived in mid-March," he says. "Prime Minister Jacinda Ardern locked down the country a week later and gave people 48 hours warning."

"Because I have several comorbidities, my kids shipped me off to the farm for 12 weeks where I had no interaction with anyone except a few family members. I ran the business from home, contacting clients on Zoom. And, I was able to keep training for track and field Masters events, doing my shot put and hammer throws in the paddock."

Delamere says his business has boomed since COVID brought the whole immigration sector to a grinding halt.

"Those living outside New Zealand with visas haven't been allowed to return even if they have homes here," he says. "Some have expired visas and they are stuck offshore. Many have lost jobs in Europe or the USA. Plus, a lot of people temporarily living in New Zealand don't want to go back home where infections are very high."

"Only New Zealand citizens, permanent residents, and those with occupations deemed critical to the economy can enter the country," he says. "Hollywood was allowed to fly in 200–300 people for the next *Avatar* movie. And, the American Cup race is held here, so overseas teams are allowed in as it's worth hundreds of millions to the economy. But the average Joe is not expected to be allowed in until sometime in 2022."

Delamere says New Zealand was COVID-free for 102 days before the second wave hit.

"We had allowed New Zealand citizens to return to the nation from other countries. They all had to quarantine for 14 days but somehow, one got out and infected an airport worker who went to a big church and didn't know he was sick. There were 500 people singing and it spread. Once it was identified, all the churches were locked down and we used contact tracing."

"The system's not perfect but New Zealanders are very willing to be compliant," he says. "Sixty thousand have gone through the quarantine process but only five went nut job and broke out of their quarantine places. These are five-star hotels with a ring fence and military guards. Five did escape, if you like, and three of them were sentenced to prison for a month."

"Although the economy has problems, we're lucky because the government acted well. I think being an island at the bottom of the world is also very helpful."



JACKSON FU

distanced but
connected!
our global
pandemic
stories



NATASHA OSTOPOVICH

A world away in Ft. Nelson, British Columbia, not far from the Yukon border, Natasha Ostopovich ('11 Kinesio.) barely notices the effects of the pandemic.

"COVID hasn't been super negative on my life," says the former WSU rower. "There's been a lot of positives. I'm now in my first year of full-time teaching high school math with a foot in the door toward eventually teaching physical education."

Ostopovich was still working at a boarding school on Vancouver Island when Canada went into lockdown last March. Her campus closed and everyone went online.

"My outlet is working out and lifting weights, so when all the gyms shut down, that was tough," she says. "Even buying equipment was tricky. I could walk or run—and sometimes I worked out with a couple dumbbells, socially distanced with friends."

"I was also at a crossroads in my career and had just given the school notice that I wasn't coming back. I was heading to New Zealand to chase my dream of being a physical education teacher. But then COVID came and the borders closed. The school was great and let me stay on for the rest of the year and I got to teach the physical education program online."

Yet Ostopovich kept thinking about New Zealand. Come summer, she moved back home to Ontario to stick with her plan and wait for the borders to open. Unexpectedly, the Ft. Nelson job caught her eye.

"I'm now up north in a small community of about 3,500 people and if there's anywhere to be, this is probably better than the larger cities," she says.

"If there was no COVID, I'd be over in New Zealand but it's a lot of money and a lot of unknowns. My whole goal was to advance my teaching career and get experience and that's exactly what I'm doing right here."

distanced but
connected!
our global
pandemic
stories



HEBA ALZAN

Heba Alzan ('16 PhD Vet. Med.) sips tea in her apartment in Cairo, Egypt. The sounds of city traffic filter through the window where, outside, pyramids rise in the distance.

"Actually, our government did a good job dealing with the COVID outbreak as we took preventive measures when it first started in China, before we reported any cases in Egypt," she says. "We had a night curfew and people worked from home for about three months. When it started to reopen a little bit, infection rates increased but recovery is high according to public reports."

Alzan is an adjunct professor in the Department of Veterinary Microbiology and Pathology at the WSU College of Veterinary Medicine where she studies *Babesiosis*, a cattle disease transmitted by ticks.

She says when the pandemic began, she was glued to the computer, tracking COVID's spread and checking up on friends, including those in Pullman.

"I miss Pullman a lot—it's my home in my heart," Alzan says. "It's not only the place I got my PhD but the place I got to know myself."

So far, she and her family have remained healthy but suspect they may have had asymptomatic infections.

"Nobody knows for sure," she says. "Sometimes when I feel fatigued or have something in my throat, I think maybe I got it and it was mild."

"Others have not been so lucky, especially if they were smokers," Alzan says. "Some got blood clots in their heart, legs, or other parts of the body. Some famous Egyptians got COVID and died while others survived, so this is a battle for the immune system."

"We are supposed to wear masks and social distance but not everyone follows it. With careless behavior, we're worried about having a second wave as one has already started in Europe."

In retrospect, Alzan says, "I think now you can see that life was running, running, everything was going so fast. It was kind of like, hey, slow down and look at what we left behind. Most people are racing through life so fast they forget what they have—other people they love and never see, especially the elderly."

"This little virus hit all the countries at once and made the entire world at the same time stay home. It doesn't differentiate between well-developed and developing countries. It's something we have to think about."

"It's not about the money, it's your health," she says. "We have to depend on the strength of our immune system and try to revisit our lifestyle. Regardless of COVID, in the future, we could get other new viruses, bacteria, or problems from global warming. We can't take anything for granted." ✨



More stories ...

Maria Montero only planned to spend a couple weeks in San Jose, Costa Rica. The doctoral student in WSU's School of Food Science flew home in early March to help her mother recuperate from surgery. A few days later, COVID arrived and the border closed ...

As a veterinarian in Nairobi, Kenya, **Duncan Ithinji** ('20 PhD Immunology and Infectious Diseases) spent his lockdown traveling dusty red roads to care for sick animals.

Amer Dababat leads the Turkish division of the International Maize and Wheat Improvement Center in Ankara. In 2019, he spent his summer studying wheat diseases in Pullman as a recipient of WSU's new CGIAR Borlaug Fellowship Program.

It was one more step in Dababat's long collaboration with WSU to boost global agricultural productivity, food security, and economic growth ...

read stories from Montero, Ithinji, and Dababat: magazine.wsu.edu/extra/global-covid



- 43 alumni profiles
- 48 we met @ wsu
- 50 new media (FROM PAGE 21)
- 54 class notes
- 57 in memoriam



CIRCULAR PROJECTION SCREEN IN THE SPARK BUILDING—PULLMAN CAMPUS (COURTESY ZGF)

Caffeinated Cougs



@KAMIAKCOFFEE/FACEBOOK

Kyle O'Malley had anticipated "a break-out year" for Kamiak Coffee Company. But, "by February that was questionable." And, "March was a completely different business environment."

With wholesale accounts on hold and coffee shops closed due to lockdowns prompted by the onset of COVID-19, the owners of the young roastery had to quickly regroup. Similarly, Indaba Coffee, which has been steadily expanding throughout the last decade, was also confronting operating changes in the face of the novel coronavirus. Both businesses successfully enacted measures to help them survive the pandemic, which—O'Malley says—forced them "to adapt or cease to exist."

O'Malley ('17 Fin., Busi.) and Grant Schoenlein ('16 Fin.) left their jobs in 2018 to start Kamiak, specializing in premium, small-batch, roast-to-order coffee in Moscow, Idaho. The two had met at WSU, became friends, and were roommates during their sophomore year. O'Malley participated in the Center for Entrepreneurial Studies Business Plan Competition, which got him thinking about working in coffee.

Bobby Enslow ('06 Fin., '08 MBA) established Indaba in Spokane in 2009.

The business now includes five cafés and a roasting operation. Indaba is a Zulu term that refers to a gathering of tribal leaders to discuss important business. While studying for his MBA, Enslow spent two months in South Africa as an administration consultant for an HIV/AIDS clinic. When he returned to work on marketing development for a nonprofit, he recognized the need for a coffee shop in his hometown's West Central neighborhood. With help from his family investing in the business,

he purchased his first roaster and "jumped in with both feet."

Enslow founded Indaba as a "third place," or hub where people spend their time outside of home and work to hang out, build relationships, and exchange ideas. To that end, none of Indaba's five locations are equipped with a drive-thru. When the pandemic hit, Enslow had to switch the service in his coffee shops to take-out only.

He went beyond state guidelines and stopped taking cash or letting customers come inside. Indaba already had a mobile app in place for ordering coffee for curbside pickup. But, according to Enslow, the app improved during the early months of quarantining, adding a feature to alert baristas when a customer arrived out front—including a vehicle description.

In March and April, sales were down 60 to 70 percent, Enslow says, though those numbers started improving during the summer. Also, for the first time early on in the pandemic, he submitted beans to Coffee Review, the world's most widely read coffee-buying guide with as many as a million readers per year.

"We hoped for scores in the upper 80s and instead received a 94 and a 93," Enslow says. From 40 samples, Coffee Review's tasting panel gave Indaba's Ethiopia Hassen Ware Akkrabi the second-highest rating in the Northwest for its April 2020 tasting report, describing the coffee as "delicate, sweetly tart, intricately balanced." These positive reviews in part led to a doubling of online subscriptions for weekly or monthly delivery of coffee beans, including subscribers from as far away as Boston. Enslow has since secured a warehouse and is working to build up the e-commerce side of his business. He's also submitted more samples to Coffee Review, earning a score of 95 in August for Indaba's Ethiopia Dame Dabayee which reviewers called "exquisitely balanced." Two other coffees received scores of 91 and 93.

While Indaba was founded as a gathering place, O'Malley and Schoenlein established Kamiak as a wholesale roasting operation. The pandemic initially upended that plan,



@KAMIACOFFEE/ TWITTER

prompting the partners to focus on online business. They offered a sampler of their coffees as a way for their customers to try their products and determine their favorites. With improvements in online ordering and expedited shipping, they can now roast coffee on a Monday and have it delivered “hyper-fresh” to a client in Florida by Wednesday, Schoenlein says.

Both Kamiak and Indaba import raw green coffee beans ethically sourced from farmers who implement environmentally responsible coffee growing practices. The beans both roasters import are specialty grade, and certified fair trade, meaning buyers pay well above commodity price for the beans they import. There is a humanitarian aspect to sourcing coffee. The coffee growing belt along the equator includes many regions challenged by a lack of employment opportunities, poor health care, and the availability of clean water.

Coffee farmers, O'Malley says, need to earn roughly \$2.50 per pound to break even, but world commodity prices are currently around \$1.29. As a specialty roaster, Kamiak can pay a premium price, several hundred percent over base commodity prices, to obtain the highest quality beans and support growers who are doing innovative farming practices. These growers include Coopedota,

a cooperative of small coffee farmers in Costa Rica. Coopedota's farmers compost their coffee cherry pulp, irrigate cattle pastures with wastewater, and maintain primary and secondary forests on their lands.

O'Malley observes that coffee—especially high-quality coffee—is an affordable luxury. During this pandemic, he says, “people at home need coffee to get through the morning Zoom meetings.” Both he and Schoenlein see a future in coffee similar to what has happened in craft beer, with consumers paying more attention to flavor and being willing to try new things. Quarantine, says O'Malley, “is an opportunity to learn new things.” He's upped his cooking, and encourages people to “learn something new, become a professional home barista. Brewing coffee, enjoying a delicious cup is something anyone can do.”

Enslow has observed that, during this period of social isolation, small positive gestures—such as baristas engaging in brief, friendly exchanges with patrons—can be tremendously important. He also says he's grateful for the community support he's seen, along with his ability to obtain personal protective equipment for employees. “Our goal,” he says, “is to come out of the pandemic thriving, not surviving, and to remain a positive voice in community.” *

The winner is...

BY ADRIANA JANOVICH

Andrew DeCesare's big dream is to shout “Go Cougs!” at the Academy Awards. “It's funny to say, but that is the goal.”

And, of course, he says, so is getting nominated.

Just a few months after graduating and moving to Los Angeles, DeCesare ('08 Comm.) landed a job as a production assistant on James Cameron's 2009 blockbuster *Avatar*. Today, he's one of three principals in 5150 Action Productions, which specializes in shooting action sequences and serves on film sets as second unit directors for “all your big explosions, stunt-performing teams, and special-effects teams.”

DeCesare does stunts, if needed. “But normally,” he says, “I help manage the day-to-day operations between 5150 and Paramount or whomever we're working for.”

DeCesare minored in theater arts and went to La La Land to act. “I wanted to be in front of the camera when I first got here,” he says. “But I quickly learned that I want to be the guy calling the shots. I want to be in the driver's seat. I want to be the guy yelling, ‘Cut!’ or in the editing bay. The control is in the hands of the producers, writers, and directors. You just have so much more creative freedom.”

He joined 5150 in 2014 as vice president of creative development after meeting founder, writer, director, second-unit director, and stuntman Mike Gunther while working on *Transformers: Age of Extinction*. Michael Day joined the team after meeting DeCesare on the set of *The Dark Knight Rises*. Their recent *Rogue Warfare* trilogy marks the first original content produced by 5150.



PHOTO: MIKE DECESARE

Early last August, *Rogue Warfare: The Hunt*, the second in the series of action-packed, low-budget military movies, was the most popular movie on Netflix. DeCesare wrote and produced the film, No. 1 on Netflix on August 3, 2020.

Filming for all three movies took place over 45 days in 2018. The films featured union actors and crews as well as a super-tight budget—just under \$750,000 for each movie. “It was a massive gamble,” DeCesare says. “With so little money and no room for error, it kind of freaked people out.”

Paramount Pictures helped, providing access to its prop warehouse at no cost. Still, DeCesare says, “We had our work cut out for us.” If scenes were dropped from a day's shoot, it was his job to figure out how to fit them back into the schedule. “It becomes a shapeshifting jigsaw,” he says. “It's constantly changing.”

His dad, Mike DeCesare, served as the on-set photographer, shooting publicity stills for all three films. His sister, Gina DeCesare ('12 MIT), played an officer in the command center in each one, too.

DeCesare lauds his broadcast production experience at WSU for prepping him for filmmaking, particularly his media writing class as well as media law and management classes with Kenji Kitatani ('77 Comm.), a former Lester Smith Distinguished Professor of Media Management at the Edward R. Murrow School of Communication. “He was a big influence on me,” says DeCesare, who credits timing and Netflix for *The Hunt*'s surprise success.

“Hollywood's been at a standstill since last March because of the pandemic,” he says. “It put us in a really good position. Then Netflix put it on the home page, and that was it. That really stirred the pot. Now Netflix is talking with us about future projects.”

The Cheney native has written a fourth *Rogue Warfare* film as well as “a more dramatic script” that he's hoping to launch in early 2021. And he's looking forward to where his film career next takes him.

“Ultimately, I got into making movies because when I was 10 years old and watching a firefighter movie, I wanted to be a firefighter. Then I'd watch an astronaut movie, and I wanted to be an astronaut.” Eventually, he says he realized, “Mainly, I want to be a storyteller.” *



Big cat on campus

BY ADRIANA JANOVICH

This new Cougar has had a lifelong love affair with another big cat.

Washington State University freshman Isabelle Busch, who's worked with the Cheetah Conservation Fund since kindergarten, recently designed the 2020 International Cheetah Day T-shirt.

International Cheetah Day is December 4. “They do a T-shirt every year. This time they contacted me and said, ‘Do you want to design it?’ so I donated my artwork for their fundraiser. It was a lot of work, but it was an honor,” says Busch, who was one of eight winners of CCF's 2020 Distinguished Young Conservation Hero Award.

“I enjoy being able to make a difference through my artwork and education efforts,” says Busch, who first became intrigued with cheetahs as a five-year-old after reading a book about the animals and learning they

are considered critically endangered in north Africa and Asia. Her first fundraiser for CCF was Chapters for Cheetahs; donors pledged a particular amount per chapter, and she read as much as she could.

When she was older, she toured her neighborhood “with educational materials and a cheetah speech,” according to a post she wrote in 2019 for CCF's website. “I knew all the facts—not just the whats, but the whys.”

Since then, she has held cheetah-themed art camps, filmed and edited videos, composed emails and graphics, and more. In all, the wildlife ambassador and self-described “budding biologist and artist” has raised more than \$26,000 for CCF.

Busch hopes to complete an internship with CCF in Namibia during college. Meantime, because of the persisting COVID-19 pandemic, she's attending WSU virtually from her parents' home in Veradale. Kristy (Clerf) Busch ('92 Fine Arts) and Dackary Busch ('91 Elec. Eng., '20 MBA) are also Cougs.

“I'm thrilled to go to WSU,” says Busch, an Honors College student majoring in biological sciences. “The community at WSU is unmatched and truly values what I am passionate about for my education.” *



ISABELLE BUSCH'S PHOTO AND ARTWORK COURTESY CHEETAH CONSERVATION FUND

Working forward

BY TOM KERTSCHER

Growing up in Yakima, Stefan Bradley ('98 MA History) realized that he learned about Black history mostly at home and at church—not in school.

"Most of the things that we discussed in class that had to do with Black people ended up being uncomfortable," Bradley recalls. "And I'm not blaming this precisely on the educators that I had, because I had really good educators. It's just what was valued in systems. Of course, I knew we were being left out."

That awareness helped lead Bradley to choose Black history as his career path. He is now a professor of African American Studies at Loyola Marymount University in Los Angeles and coordinator for diversity and inclusion initiatives at its Bellarmine College of Liberal Arts.

Bradley has focused his research on the minority of a minority: Black students who attend Ivy League schools. His books include his latest, *Upending the Ivory Tower: Civil Rights, Black Power, and the Ivy League*.

"What I always wanted was a diversity in the history of Black people. I wanted to know what it would look like when I studied Black people who—it may sound strange—but who had enough privilege to attain higher education, and I wanted to know what their experience would be like in these privileged spaces. I was delighted to find out that these students saw themselves as part of something larger, as part of a larger Black freedom movement," Bradley says.

"Trying to achieve while navigating a culture that's so different, took extra work. And there was a certain kind of a conflict and a certain kind of guilt that students felt about it—almost like a survivor's guilt—that they made it to the Ivy League and so many Black people were suffering at the moment," he says. "So, there was an obligation to do something on campus to make campuses more relevant to the needs of Black people

who would never have the opportunity to attend higher education."

Bradley appreciated his own opportunity at Washington State University.

"At Wazzu, we took pride in the fact that many of us were quite working class, many of us were first-generation students, many of us—our families in one way or another had been marginalized, either because of race or class and that sort of thing," he says.

"I had the opportunities to meet and learn from some of the brightest people that I would ever encounter," he adds. "In my program, I learned from professors with much different politics than I had, but they trained me to research in a way that goes beyond my own thinking."

Regents Professor Emeritus LeRoy Ashby, who taught U.S. history at WSU for 36 years before retiring in 2008, "greatly encouraged me to pursue African American history. As my MA advisor, he took into great consideration my interests and encouraged me to explore elements of the Black Freedom Movement



in my thesis. My work with Professor Ashby and the members of my committee set the stage for my PhD training at the University of Missouri-Columbia, where again I had wonderful mentors."

Bradley says he appreciates strides that Black people have made, but since Black History Month was formalized in the 1970s and '80s, they still lag on many measures.

"In the things that make life good for Americans—jobs, health, education, access to the democracy—African Americans are not benefiting as much, and so what we're seeing is a real challenge to what progress looks like for Black people," he says. "So, there's much work to move forward." ✨

Stefan Bradley's books:

Upending the Ivory Tower: Civil Rights, Black Power, and the Ivy League | NYU PRESS, 2018

Harlem vs. Columbia University: Black Student Power in the Late 1960s | UNIVERSITY OF ILLINOIS PRESS, 2009

Working through it

BY ADRIANA JANOVICH

Wayne Chang ('10 Civ. Eng.) is a civil engineer with a passion for international disaster relief and humanitarian work.

His first three missions with Doctors Without Borders/Médecins Sans Frontières were overseas: at refugee camps in Tanzania, a clinic in South Sudan, and a hospital along the border between South Sudan and Sudan.

This time was different.

His fourth assignment with the global medical aid organization took place in U.S. territory. Chang used vacation time and unpaid leave from his job at Boeing in Everett to help with the nonprofit's COVID-19 response in Puerto Rico. From April to July 2020, he



COURTESY WAYNE CHANG

used his expertise to carry out a number of projects, including designing and building a shower trailer to give homeless Puerto Ricans a place to bathe and maintain hygiene practices to help limit the spread of the virus.

Doctors Without Borders is known for its international work with disease outbreaks and in conflict zones and areas of the world where people lack access to health care. When the novel coronavirus pandemic hit, the emergency organization also responded stateside with Native peoples in the American Southwest as well as with other underserved populations in Florida, New York, Michigan, Texas, and Puerto Rico, where Doctors Without Borders distributed more than 5,000 hygiene kits.

For the mobile shower unit, Chang aimed to use materials readily available in Puerto Rico to ensure future maintenance could be handled without relying on shipments from the mainland. Parts were scarce. "I'm used to working in low-resource areas where you can't just walk into a Costco or Walmart and grab what you need," he says. "But there were shortages across the island. The biggest hurdle was just securing supplies, trying to find and buy parts."

Because of this, Chang had to keep changing specifications, and the project took longer than planned. While the build itself only took about a week, the entire job took more than a month and a half.

While troubleshooting and securing parts, Chang also managed logistics for the response team and drove medical personnel from house to house to visit homebound, elderly, sick, and low-income patients. "I made sure the doctors and nurses had what they need to do their jobs," says Chang, who was a member of Engineers Without Borders and American Institute of Aeronautics and Astronautics as a Washington State University undergraduate. He worked in the Biosystems Engineering Laboratory and one of his early jobs was in hazardous waste.

"I still had some of the gear—a mask, gloves—from like ten years ago and just dug it out of the closet," says Chang, who also prepped for the Puerto Rico mission by reading documents from the World Health Organization and Centers for Disease Control.

Throughout his stay, Puerto Rico was under strict lockdown. "They had a 7:00 p.m. curfew for the entire island," he says. "You weren't even supposed to be out wandering around during the day. You were allowed to go shopping and buy food, but that was about it. In terms of reinforcement, there were police officers pretty much everywhere."

Chang and the rest of the response team distributed nearly 30,000 pieces of personal protective equipment and conducted training on infection prevention and how to curb the spread of the novel coronavirus at nearly two dozen health facilities, detention centers, schools of nursing, as well as among high-risk populations. Another project: upgrading the kitchen at an elementary school where local women were cooking meals for families with food insecurity during the lockdown. The team also worked with local partners to provide home health consultations and pop-up clinics in and around San Juan as well as remote areas of the island.

The pandemic, Chang says, "just magnifies all the issues"—hunger, health care,

food and supply chain shortages, transportation, and poverty among them.

He got into international aid work in 2013 after Typhoon Yolanda hit the Philippines, flying there on his own time and dime. "One person on the flight was from Doctors Without Borders. He introduced me around to other NGOs, and it just kind of snowballed from there," says Chang, who worked as an independent field engineer for a couple of months before landing back-to-back gigs managing water and other projects with Save the Children International and Oxfam in Ormoc City, Leyte Island. In all, he spent a year in the Philippines, coordinating infrastructure support for daycares, schools, and clinics, and repairing and rebuilding water systems in the wake of the typhoon.

His work in the Philippines led to his first stint with Doctors Without Borders in 2015. In Mayom, South Sudan, he served as a water and sanitation engineering manager, supporting a clinic. He designed living units inside the clinic compound, drafted plans for future expansion, and wrote long-term engineering plans for pivoting from emergency to standard operations.

"The first-mission dropout rate is really high," Chang says. "A lot of people don't make it past the first mission. You have to prove you're willing to go where there's no electricity, no flushing toilets, and no luxury. You have to show you're able to put your head down and just work through it. It's not glamorous."

In 2016, he returned to South Sudan, working to make sure a hospital along the border with Sudan had adequate water and supplies. From fall 2016 to spring 2017, he worked at the Nduta and Nyarugusu refugee camps in Tanzania, where he designed and implemented water, sanitation, and other projects.

He's already looking forward to his next mission and plans to keep working in international aid as long as he can.

"My retirement job is going to be Doctors Without Borders," he says. "I always wanted to do it. It seemed so cool to travel and help people out." ✨

When Duane and Arleen met

BY ADRIANA JANOVICH



They were in the same psychology class.

It was one of those large lecture classes, the kind that fills an auditorium in the science building, and they didn't actually talk with one another until the last day.

"I was sitting with a friend of mine, and I can still remember this group of lively girls sitting several rows in front of us," says Duane Stowe ('51 Busi.).

He was a sophomore from Burlington. She was a freshman from Yakima. It was the end of January 1949, finals for fall semester, and Duane and his buddy were going for coffee at The Coug to celebrate. At the last minute, they invited two of the girls to go with them.

"I sat with Bill, and the two gals sat across from us," Duane recalls. "Arleen was sitting across from me."

In those days, Pullman's famed Cougar Cottage "served coffee and Cokes," Duane says. "There was no beer."

He doesn't remember what they talked about. But, "I don't think it was psychology."

Even though he didn't know her then, he knew of her. "The fella that introduced me to her had been going with her," Duane says. "He had a picture of her all dressed up, and I thought, 'What a pretty girl!' I was aware of who she was, and I was very interested in her. He was going with someone else by then, and so was she, and I had a girl back home. That was 70 years ago—17

years ago. We've had a wonderful life."

Duane and Arleen Stowe ('52 Ed.) met several more times at The Coug. At some point, he says, "I carved my name on something, but I never could find it again."

Their first "really big date" was more than a year later. She accompanied him in spring 1950 to his installation ceremony for the Crimson Circle, a long-running but now defunct men's organization at Washington State.

"I sent two of my fraternity brothers to ask her if she'd go with me. I was kind of bashful," says Duane, adding he'd walk by her sorority house every day. Soon, they were spending most weekends together.

"A lot of the houses had a dance every weekend," he says. "We went to many dances together. Some of my friends had

cars, and we'd double-date with them."

He remembers taking her to see *September Affair*, starring Joan Fontaine, at the Cordova

Theatre in downtown Pullman. "We didn't go downtown very often. It was a big thrill to get to go downtown to see a movie," Duane says. "I still remember the song from the movie: 'September Song.' We had to walk down from Greek Row. It gives you a lot of time to talk."

Says Arleen, "We just enjoyed visiting."

Being with Duane, she says, "was just very comfortable."

Usually, the couple stuck close to campus and College Hill, where Duane remembers sledding that winter. "We walked a lot in the snow together. We'd walk to class. We'd spend a lot of time in Bryan Hall, where the library was back then. We'd study together and take a break and sit out on the main steps and talk."

He was also a member of the Intercollegiate Knights.



The night before home football games, "we'd stay up all night guarding Butch," the University's live-cougar mascot. "We were there to prevent anything from happening to him," Duane says. During games, "I got to walk the cougar around (the stadium) in his cage. We all dressed in our Intercollegiate Knight sweaters. If we won, we were the ones who got to ring the Victory Bell."

In spring 1951, he gave Arleen his fraternity pin. In spring 1952, they got engaged.

She sang a solo to him and his fraternity brothers from the front porch of her house, and all of her sorority sisters came out to listen. "That was a big deal," Duane says. "I had a box of cigars and passed them out to everybody. It was really something."

He was in ROTC and received orders before graduation, serving in Japan during the Korean War with the U.S. Air Force for three years. Arleen graduated while he was gone, moving back to her hometown to teach.

"I wrote to her every night from over there," Duane says.

"That was the biggest deal at the end of the day: mail call to get that letter."

They married in Yakima when he returned from service on June 27, 1954. Then they moved to Burlington, where Duane's father, Harry, had founded Stowe's Clothing in 1940.

While Harry hadn't attended Washington State College, he stayed in Ferry Hall with the U.S. Army before heading to New Jersey to be shipped overseas to fight in World War I. The 1918 influenza pandemic delayed his shipment, and the armistice was signed before his unit left for France. "He was real anxious to get over there," Duane says. "He didn't get the flu, but it held up his group."

His senior year, a business professor told Duane's class "that the mom-and-pop store was dead, that it was all over. And that was a burr under my saddle. All these years, I worked to prove him wrong. And I did."

Duane went to work in his family's store with his dad and brother, forming a three-way

partnership. He did the buying and worked the floor. Arleen worked in the office. "We'd lunch together every day," she says.

By then, she had quit teaching and was working as the bookkeeper for Stowe's Shoes and Clothing as well as raising the couple's two daughters.

were thrilled to share the day with us!"

At one time, Stowe's had five locations from Bellingham to Albany, Oregon. "Arleen was with me through the whole bit," Duane says. "We stuck together through everything, all the ups and downs."



partners: Merri Anne and Peggy ('82 Busi.).

Granddaughters Ashley ('10 Busi.) and Melissa ('10 App., Merch. & Text.) are Cougs, too. Peggy and Ashley are managing the store now. Melissa does all the social media and runs the website. Melissa and her husband, John Timberlake ('10 Busi. Admin.), met at WSU and share the same wedding date as her grandparents. They married June 27, 2015. Says Melissa, "They

The secret to their long, successful marriage: "We respect each other," Duane says.

"That's what I was going to say," Arleen says, adding, "We give each other space, but we also do a lot of things together."

And, Duane says, "We agree politically. We've also been very active in the community. We still stay as active as we can."

In the end, he says, "We are Cougs, through and through." *

Opposite: All dressed up for a formal dance at WSC in 1950. **Left:** Honeymooning in Victoria, British Columbia, in 1954. **Below:** Holding great-grandsons Archer and John Duane Timberlake in 2019. All photos courtesy of the Stowe family

NEWmedia

believers around the world were joining with them in “the act of consecration and penance.” He told his family he was thinking of them and that he was praying that “all of us come through to better days when mercy and charity again return to the earth.”⁴

The calculus was clear for Eddy. To honor the death and resurrection of his Lord and Savior, no movies, no fleshly wickedness, and not much booze. Pray for mercy and charity to return to earth. And in the meantime, covertly arrange for the murders of Germans, Japanese, and Italians.

The war, the assassination plot revealed, seemingly changed everything for religious activists turned spies like Eddy. Or maybe it didn't. Maybe assassinating those who did the devil's handiwork represented the logical culmination of their sense of global Christian mission, how they planned to bring peace and charity back to earth. If they hoped to restart their religious work after the war, they first had to defeat the evil that blocked their path. Perhaps for Eddy and dozens of other holy spies, serving a secretive, clandestine US wartime agency tasked with defeating German and Italian fascism and Japanese militarism was another way, maybe the best way, to serve the very same Jesus they sought to emulate as missionaries.

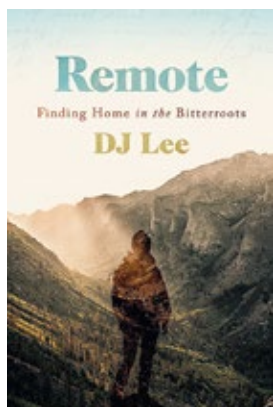
They were never quite sure.

1. A.D. Gascoigne to J. Rives Childs, April 17, 1942, “Tangier,” box 2, entry UD 2978, RG 84, National Archives and Records Administration.

2. William Eddy to William Donovan, August 26, 1942, frame 208, roll 34, M1642, RG 226, National Archives and Records Administration.

3. Eddy to Donovan, August 26, 1942, frame 208; Donovan to Admiral William Leahy, August 30, 1942, frame 363, roll 34, M1642, RG 226, National Archives and Records Administration.

4. Eddy to Marycita Eddy, March 27, 1942, folder 10, box 5; Eddy to Mary Eddy, March 13, 1942, folder 8, box 10, William Alfred Eddy Papers, Princeton University.



Remote: Finding Home in the Bitterroots

DJ LEE

OREGON STATE UNIVERSITY PRESS: 2020

Places can possess us. Think of the stubbled, ochre hills of the Palouse in the chaffy light of October. No place possesses me more than the landscape defined by two rivers, the Lochsa and the Selway, where the rumpled land of the Bitterroot Mountains lies in the V between them.

Nearly 20 years ago, I told the writer DJ Lee, a Regents Professor of literature and creative writing at Washington State University, how an early morning drive down windy Highway 12 along the Lochsa River, where clouds ghosted the water and the close, moist air offered the spice of western red cedar, had transformed me and led me to move to the Northwest. DJ and I were having tea at the old Bookie across the street from her office in Avery Hall on the WSU Pullman campus. She told me that her family had homesteaded land above the Selway River. Her grandfather had worked for the U.S. Forest Service, early in its history, in the Bitterroots.

DJ did not then know much about the Bitterroots or the experience of her family in the mountains, but a few evocative photographs of her grandfather and sporadic diaries written by her grandmother had infused her with desire to write a book about her family in the wilderness.

Remote: Finding Home in the Bitterroots offers that family story and the intriguing narrative of DJ's own possession by the

land between the Lochsa and Selway Rivers. Her story tests how the rugged Selway-Bitterroot Wilderness, where no one now permanently lives, bonds us to others. DJ trails the mountains to connect with her mother, to locate the displacing wildness of her grandfather, and to query the emotional disjunctions of her grandmother.

The inscrutable land drives DJ toward guides and mentors that deepen the Bitterroot story. One mentor, Dick Walker, a former Forest Service employee and pilot, surges through *Remote's* narrative like a cascading river. Walker, whose feral energies parallel those of DJ's grandfather, has an archive of Bitterroot photographs and documents, including, mysteriously, a collection of DJ's family photographs.

Both rivers and books may change course over time. About a year ago, while we sat at a campfire on a rainy, chill night beside the Selway, DJ told me how *Remote* had changed course, finding its final form. Connie Johnson, a charismatic transplant from Iowa to the Bitterroots, who served for decades as a backcountry ranger, had disappeared in the wilderness beyond Big Fog Mountain. Johnson had lived part-time in the log cabin DJ's grandfather had built above the confluence of the Selway River and Moose Creek. Over wine on the cabin porch, Johnson helped DJ understand how a woman could flourish in the wilderness. Then Johnson disappeared, disrupting DJ's sense of the woman's power. That disruptive disappearance brought Johnson to the front of the book and set its theme: possession by place is transforming. Possession connects us, takes us into wood, makes us bright berries and soft leaves, and mixes us with grit and fertile soil.

Remote transforms us readers as we follow DJ's possession by the Bitterroot Mountains, the Lochsa and Selway, and the people of these places.

—Larry Hufford

Hufford, former professor of botany and interim dean of the WSU College of Arts and Sciences, is dean of the College of Humanities and Sciences at the University of Montana.



Legacies of the Manhattan Project: Reflections on 75 Years of a Nuclear World

EDITED BY MICHAEL MAYS

WSU PRESS: 2020

Many of the academic essays in this book, the second in the Hanford Histories series, were first presented in 2017 at the Legacies of the Manhattan Project at 75 Years conference in Richland, situated along the southern edge of the Hanford Site. In his introduction, Michael Mays—professor of English at WSU Tri-Cities, director of the Hanford History Project, series editor, and editor of this volume—points out that this nearby location is where the plutonium that fueled the nuclear bomb dropped on Nagasaki on August 9, 1945, was produced. “As the following essays attest,” he writes, “the Manhattan Project's afterlives animate the present in profuse and often urgent ways.”

This scholarly retrospective goes beyond the Hanford Site, providing the kind of complex analysis that only time and extensive scrutiny allows. Thoroughly researched annotated essays explore the myriad impacts that the top-secret government operation has left on the world, from education, health, and the environment to politics and pop culture. The depth and breadth of this collection makes clear that the history of implosion science remains relevant.

Mays, in fact, argues that the Manhattan Project “was the most significant event of the twentieth century.” And it's difficult to disagree after contemplat-

ing these eleven chapters illustrated with nearly 30 images. Essays examine the refinement and testing of weapon designs, emergence of more than two dozen teaching reactors for training students during the Cold War, journalists' and other writers' accounts of atomic warfare and radiation, contamination in the Columbia River, cancer as a result of nuclear fallout, collective identity regarding radiation exposure, and “atomicalia,” or the material manifestation of the atomic era in relics from children's toys and comic books to soaps and cure-alls.

—Adriana Janovich



Sins of the Bees

ANNIE LAMPMAN

PEGASUS CRIME: 2020

This profoundly Pacific Northwest novel—chock-full of vivid imagery of the region's flora, fauna, history, and topography—follows Silvana “Silva” August Moonbeam Merigal on a quest for kin. Annie Lampman, a clinical associate professor of creative writing at Washington State University Honors College, expertly weaves memory with the present and the metaphorical in a richly layered and carefully structured story of trauma and tragedy, cultivation and destruction, family and faith, romance and redemption.

Besides her bonsai trees, Silva is basically alone in the world until she learns of a link to her long-lost grandmother. Desperate for family after the death of the

grandfatherly figure who raised her, the 20-year-old arborist leaves home on a fictional Puget Sound island to trace a lead that's more than a year old.

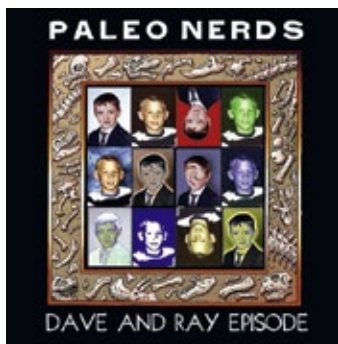
Set between 1999 and 2001, Lampman's lyrical debut novel blends suspense with the splendor of the natural world in a story of two women's searches for meaning and amends after suffering the same sort of anguish and mourning. This contemporary narrative of loss and longing for belonging unfolds in a remote and unforgiving landscape shadowed by end-of-the-world prophecies, the perverse beliefs and actions of a religious cult, and a sorrow that stretches across generations.

Lampman drew from her own life for inspiration. She grew up in the rustic and self-reliant wilds of Idaho, where she taught herself about trees, bees, and the art of bonsai. She learned the terrain, too, camping along the North Fork of the Clearwater River and backpacking into Hells Canyon.

Silva's search leads her to Nick Larkins, a beekeeper who's intrinsically tied to the dangerous Almost Paradise doomsday cult led by the charismatic, cunning, and domineering Len Dietz. On the first day of the new millennium, the cult leader aims to wed a dozen maidens. His followers, the Lenites, stockpile home-canned goods, fear outsiders, and repress and exploit women and girls. Isabelle Fullbrook, an artist a world apart from Silva who must make peace with her own past, is commissioned to paint the 12 maidens as Y2K approaches.

The plot, full of tension and twists, echoes recent history, especially the stand-offs at Ruby Ridge and Waco. Isabelle and Silva—grandmother and granddaughter, twin representations of one another—as well as Lampman's other characters are well-developed and compelling. Lampman's poetic prose, full of lovely turns of phrase, captures the imagination. Her spellbinding first book, winner of the 2020 American Fiction Award for crime novels, secures her place as a regional writer to watch.

—Adriana Janovich



Paleo Nerds

RAY TROLL '81 MFA FINE ARTS AND DAVID STRASSMAN PODCAST

Entertain your inner paleontologist with this lively dinosaur-themed podcast featuring fellow “paleo nerds.”

Who qualifies as a “paleo nerd?” Any adult “who still has the child-like wonder and love for dinosaurs, fossils, science, and paleontology,” according to the show’s website. But non-nerds might like *Paleo Nerds*, too.

This discussion of deep time is as approachable and amusing as it is informative. It’s a paleo party full of dinosaur dad-jokes, fossil facts and anecdotes, and visits with world-class experts, including paleontologists and museum directors, in a sort of *Car Talk* meets *Bill Nye the Science Guy* podcast for grown-ups. Ray Troll, an artist in Ketchikan, Alaska, and David Strassman, a ventriloquist in Ojai, California, explore natural history, particularly landscape evolution and ancient creatures, as well as the current environment and climate change.

In the first episode, Troll and Strassman interview and introduce each other, tracing their paleo passions from a set of plastic toy dinosaurs to a trip with dad to the La Brea Tar Pits as a young boy. The second episode features Kirk Johnson, the endowed Sant director of the Smithsonian National Museum of Natural History and longtime friend and collaborator of Troll. Subsequent episodes include “STEMinist” Amy Atwater, paleo collections manager at the Museum of

the Rockies, and Leif Tapanila, director of the Idaho Museum of Natural History. As experts talk about their areas of expertise, Troll and Strassman banter back and forth, explaining scientific terms in quick asides.

Launched in July 2020, *Paleo Nerds* provides a fun and fascinating celebration of science, brimming with stories about fossils, from scouting for crab concretions in Clallam County to big finds that lead to new discoveries and end up in museums. There’s also at least one “your mom” joke: “Your momma was a lobe-finned fish.” Troll and Strassman are relatable hosts, correcting each other’s pronunciation and facts, cracking jokes, and helping us understand how we as humans came to be here.

—Adriana Janovich

BRIEFLY NOTED

Black People Are My Business: Toni Cade Bambara’s Practices of Liberation

THABITI LEWIS WITH ELEANOR TRAYLOR AND LINDA JANET HOLMES

WAYNE STATE UNIVERSITY PRESS: 2020

This cultural biography examines the nationalist, feminist, Marxist, and spiritualist ethos of Bambara’s works, relying on her own voice to guide the discussion of her contribution to contemporary African-American literature. The writer, documentary filmmaker, and professor was active in the Black Arts Movement and rise of Black feminism. Bambara (1939–1995) interwove ethnic identity and politics with social justice and community engagement and responsibility in her works. Thabiti Lewis, professor of English, associate chair of English/American Studies, and interim associate vice chancellor of academic affairs at Washington State University Vancouver, specializes in Black American and multicultural literature.

1930: Manhattan to Managua, North America’s First Transnational Road Trip

ARTHUR LYON, EDITED BY LARRY LYON '76 MS PSYCH., '87 PHD PSYCH.

GEORGE F. THOMPSON PUBLISHING: 2020
This lively narrative details the epic

adventure of Joe and Arthur Lyon, two twenty-something brothers who drove a 1929 Model A Ford Roadster 4,562 miles in 54 days from New York City to Nicaragua during the height of the Great Depression. The young men talk their way out of all kinds of scrapes, including landing themselves in jail after inadvertently blocking a presidential cavalcade in Guatemala City. The book is based on a 308-page account of the trip, written decades ago by Arthur Lyon. Nephew Larry Lyon edited the previously unpublished memoir, now a 224-page, cloth-covered, hardbound book with 38 black-and-white photos, annotations by geographer Denis Wood, and an afterword by journalist Sally Denton.

Montaigne: A Very Short Introduction

WILLIAM M. HAMLIN

OXFORD UNIVERSITY PRESS: 2020

Part of Oxford’s Very Short Introductions series, this paperback is intended for a broad audience, particularly those unfamiliar with the aristocratic French author and essayist Michel de Montaigne. A key philosopher of the French Renaissance and one-time mayor of Bordeaux, Montaigne penned essays on everything from prayers and drunkenness to sleep, solitude, age, anger, virtue, cruelty, and fear. Hamlin, a professor of English at Washington State University, offers an approachable overview of the influential writer’s life and works in the latter half of the sixteenth century while drawing on themes of interest to contemporary readers.

The Extrovert’s Survival Guide

DEBRA YERGEN '92 COMM.

WHOLE HOUSE PUBLICATIONS: 2020

Social distancing and stay-at-home directives have been particularly tough on extroverts, many of whom have been left feeling isolated and lonely. This quick guide aims to give people who best recharge through social activities the tools to help create a greater sense of order and feel connected and productive during the current COVID-19 pandemic. It’s an easy read, featuring thirteen lessons—one per chapter—in short, approachable, well-delineated sections, including a recipe for peanut butter cookies.

More podcasts to ponder

Get entertained and educated with podcasts from WSU and alumni.

BUSINESS CURIOUS Queer entrepreneur Scott Shigeoka ('11 Comm.) chats with LGBTQ+ business owners about their entrepreneurial journeys on episodes that run about 10 minutes. The show features such entrepreneurs as the owners of gender-neutral fragrance and shoe lines to a platform that connects trans people with short-term housing solutions to help combat homelessness. [stitcher.com/show/business-curious](https://www.stitcher.com/show/business-curious)

THE COMMON ERRORS IN ENGLISH USAGE PODCAST Paul Briens, WSU emeritus professor of English, for many years compiled a list of common errors in English usage with concise explanations, culminating in a website, book, and this podcast. Episodes cover topics such as medical terms and politics. [commonerrorspodcast.wordpress.com](https://www.commonerrorspodcast.wordpress.com)

SELF-HELPLESS Kelsey Cook ('11 Comm.) and fellow comedians Taylor Tomlinson and Delanie Fischer dive into all things self-improvement in this lively, hilarious, and uncensored show. Episodes, about an hour, cover topics such as caregiver burnout, online dating, nutrition, self-image, toxic positivity, and how your name affects your personality. The trio are relatable, refreshing and, perhaps most of all, funny. [kelseycook.com/podcast](https://www.kelseycook.com/podcast)

What podcasts does a podcaster listen to? Find Kelsey Cook’s picks at [magazine.wsu.edu/extra/kelsey-podcasts](https://www.magazine.wsu.edu/extra/kelsey-podcasts)

THE DÄBU Former WSU basketball players Kojo Mensah-Bonsu ('99 Comm.) and Cedric Clark ('01 Comm.) cover race and racism in America, basketball, empowerment, and their own experiences as athletes with diverse backgrounds, success in the business world, and unlimited potential. [magazine.wsu.edu/extra/dabu-podcast](https://www.magazine.wsu.edu/extra/dabu-podcast)

PODCAST VS. EVERYONE On this CougarCenter podcast, by fans for fans, CougarCenter co-founder Jeff Nusser ('99 Comm.) and CougarCenter

host Craig Powers ('07 History) discuss WSU athletics, as well as “beer and anything else they want. So there,” according to their Twitter account. [cougcenter.com/podcasts](https://www.cougcenter.com/podcasts)

WAZZUNATION This podcast “covers everything Washington State” from Cosmic Crisp apples and athletics to COVID-19 town halls and research. “Brother Darrell” Prowse ('73 Comm.) cohosts and produces the show. [wazzunation.com/wazzu-nation-archives](https://www.wazzunation.com/wazzu-nation-archives)

WSU WHEAT BEAT PODCAST Drew Lyon, endowed chair of Small Grains Extension and Research in WSU’s Department of Crop and Soil Sciences, explores the world of small grain production and research with WSU professors, researchers from the U.S. Department of Agriculture, and others. Ten-minute episodes discuss everything from herbicide-resistant weeds and oilseeds to nematodes and developing malt barley varieties for craft maltsters. [smallgrains.wsu.edu/category/podcast](https://www.smallgrains.wsu.edu/category/podcast)

FOOD SAFETY IN A MINUTE This minute-long podcast from WSU Extension offers handy, easy-to-apply tips to avoid foodborne illness. The series delves into all kinds of issues, from holiday food safety to packing school lunches, how to store canned food, and more. [extension.wsu.edu/foodsafety/food-safety-in-a-minute](https://www.extension.wsu.edu/foodsafety/food-safety-in-a-minute)

INSIDE INDUSTRY WITH IREO WSU’s Innovation and Research Engagement Office (IREO) examines working with industry to fund research. Guests include IREO director

Know of other WSU-related podcasts? Share them with us at wsm@wsu.edu and we’ll add them to the list.

Brian Kraft, Washington Small Business Development Center associate state director Sheryl McGrath, and Amit Dhingra, leader of the Entrepreneurial Faculty Ambassadors and interim chair for WSU’s horticulture department. [research.wsu.edu/innovation/ireo-podcast](https://www.research.wsu.edu/innovation/ireo-podcast)

ASK DR. UNIVERSE WSU’s own Dr. Universe—aka Rachel Webber ('11 Comm.)—investigates science questions from kids around the world. Know kids with curious science questions? Help them submit queries at [askDrUniverse.wsu.edu](https://www.askDrUniverse.wsu.edu). They might be featured on a future episode. [askdruniverse.wsu.edu](https://www.askdruniverse.wsu.edu)



VIEWSCAPES *Washington State Magazine’s* podcast takes listeners into the lives, research, and experiences of the WSU community. Cougs from all over talk about new ideas, fascinating memories, books, and locally grown, in-season foods. Editor Larry Clark ('94 Comm.) hosts. [magazine.wsu.edu/podcasts](https://www.magazine.wsu.edu/podcasts)

More Spring 2021 inspiration from the Cougar Nation

What to read:
[magazine.wsu.edu/extra/reading-recs](https://www.magazine.wsu.edu/extra/reading-recs)

What to listen to:
[magazine.wsu.edu/extra/music-recs](https://www.magazine.wsu.edu/extra/music-recs)

What to watch:
[magazine.wsu.edu/extra/movie-recs](https://www.magazine.wsu.edu/extra/movie-recs)

Happy ValenWines Day



Celebrate your ValenWines Day and become a member of the Wine-By-Cougars Wine Club! The wine club for Cougs is free to join for WSUAA members. World-class wines that spotlight WSU alumni wineries and support WSU scholarships? We'll toast to that. Choose from four different shipment options and enjoy premium Cougar-connected wines delivered right to your door, four times a year.

alumni.wsu.edu/valenwines



CLASSnotes

70 **RICHARD HOWE** ('72 Comm.) has retired after 50 years in radio and television, most recently as the general manager and national sales manager of KAZT-TV Channel 7 in Phoenix, Arizona. ✨ **The Muscular Dystrophy Association** named **DONALD S. WOOD** ('73 PhD Zool.) as president and chief executive officer. Wood previously served as vice chairman. He's been involved with the MDA for nearly 40 years, and most notably launched and managed the organization's Task Force on Genetics that led to the discovery of the genetic cause of muscular dystrophy in 1986. ✨ **CAL GLOMSTAD** ('79 Comm.) was recently named a KCTS TV Golden Apple Award winner. After a 12-year career in broadcast journalism, he now teaches high-school video production at the Washington Youth Academy. ✨ **STEVE POWELL** ('79 Comm.), vice president of the Washington Newspaper Publisher's Association, has been named editor of the *Bainbridge Island Review*, *North Kitsap Herald*, and *Kingston Community News* newspapers. He's slated to serve as president of WNPA this year.

80 **DAVID WHITE** ('80 Crim. Jus.) retired after 40 years with the Kitsap County Sheriff's Office, where he has served for the last 15 years as chief of detectives. ✨ **CHRISTOPHER SHELBY** ('87 Crim. Jus.) retired after 34 years with Boy Scouts of America. The last 14 years, he's served as executive director for the Great Southwest Council in Albuquerque, New Mexico. ✨ **JENETTE RAMOS** ('88 Phys. Sci.), a senior vice president at Boeing, has joined the WSU Board of Regents.

90 ALSC Architects promoted interior designer **TINA JOHANSEN** ('92 Int. Des., '94 MA Int. Des.) to associate principal. Johansen specializes in municipal and hospitality markets and has worked on the renovation of the Spokane Transit Authority Plaza and expansions of Northern Quest Resort & Casino as well as Yakima Convention Center. ✨ **ROCHELLE HALLER** ('93 English) has joined Foster Garvey's trusts, estates, and charitable organizations practice as

The idea was simple: show kids how the work of a civil engineer impacts their daily lives and, just maybe, spark their interest enough to get them excited about their own future careers.

CHARLES "CHADD" KAHLSDORF ('14 MS Eng. Tech. Mgmt.) recently penned a children's book about his chosen profession. He's a principal engineer for a regional infrastructure engineering firm in Des Moines, Iowa, with experience in street and pavement design, grading and erosion control, water distribution systems, and more.

"There are a lot of picture books of structures and buildings, but I had never seen a book explain civil engineering at a kid's level," says Kahlsdorf, who earned his master's degree online through Washington State University Global Campus. "We wanted to change that."

Kahlsdorf wrote *Will the Civil Engineer* (Esri Press, 2020) as part of a project at his company, Bolton & Menk, which recently launched a career-themed STEAM at Work! children's book series with the support of Esri Press. The series aims to get readers in first through fifth grades interested in science, technology, engineering, art, and mathematics. "We found it's a really great way to reach out and get into



COURTESY ESRI PRESS

classrooms to teach kids about STEAM," says Kahlsdorf, who's done readings at local schools and libraries.

"People have reached out from around the world asking if they could get the books translated," he says. "It's been fun to see the impact."

A father of six, Kahlsdorf approached the 24-page book "as a letter to my kids explaining why I do what I do, and why I am passionate about it. That's what made it easy. It kind of wrote itself."

His children range in age from 6 to 16, and he envisioned his main character, Will, as a third-grader. The story follows the boy as he learns about his dad's job as a civil engineer, which he describes as using "math and science to make the world a better place." Kahlsdorf wrote the first draft in "about 45 minutes. It just flowed out."

He's already at it again. By last summer, he was working on another children's book, this one focused on the operations and maintenance side of infrastructure—such as city parks—with his local chapter of the American Public Works Association. ✨

BY ADRIANA JANOVICH

Will the Civil Engineer: learn.arcgis.com/en/esripress/will

a principal in the Seattle office. Haller represents high-net-worth individuals and family-owned and closely held businesses in all aspects of sophisticated estate planning, such as tax planning, probate, and trust administration. She's a fellow of The American College of Trust and Estate Counsel and serves on the Legislative Committee of the Washington State Bar Association's Real Property, Probate, and Trust Section. ✨ **DIANE MORTENSON** ('93 Rec. Stu.) is the director of community life services at Issaquah's Timber Ridge at Talus, where she manages a variety of life-enrichment activities for residents including programming, special events, and transportation. ✨ **MIKE ELIASSEN** ('95 History) heads the department of military science at Tarleton State University. ✨ **SEAN STOCKARD** ('95 Lib. Arts) is the new president and chief executive officer of the Greater Vernon Parish Chamber of Commerce in Louisiana.

00 **LATISHA HILL** ('01 Comm.), Avista's vice president of community and economic vitality, won the 2020 YWCA Spokane's Women of Achievement award for business and industry. ✨ **KEN LABROUSSE** ('01 Ag. Tech. Mgmt.) has worked as a police officer for the City of Coos Bay, Oregon, for 20 years. He serves as senior detective, president of the Coos Bay Police Officers' Association, and is a member of the Coos County major crimes team. ✨ **ELSA SÁNCHEZ** ('01 PhD Hort.), professor of horticultural systems management in Penn State University's College of Agricultural Sciences, has been appointed to the U.S. Department of Agriculture's Advisory Committee on Minority Farmers. Sánchez is a faculty leader of the Latinx Agricultural Network, a strategic planning group at Penn State that aims to enhance engagement with and provide support to Pennsylvania's Latinx agricultural community. ✨ **CHRIS CHAPMAN** ('02 Crim. Jus.) has been appointed

undersheriff of the Whitman County sheriff's office. Since 1995, Chapman, a lifelong Whitman County resident, has served as a reserve deputy, deputy, and sergeant for the sheriff's office. ✨ **SARA M. DOGGETT** ('02 Ani. Sci., '05 DVM) has been certified as a diplomat specializing in feline practice by the American Board of Veterinary Practitioners. Doggett has been practicing for 15 years and is chief of staff at two feline veterinary practices in the Boston area. ✨ **ADAM BANKER** ('03 Biol.) is a chiropractor for Naval Hospital Bremerton. He practices at a branch clinic on the Naval Base Kitsap, treating active-duty personnel. ✨ **JESSICA HAGAN** ('03 Comm.) is president and general manager at KTVB and KTFT, TEGNA's NBC affiliates in Boise and Twin Falls, Idaho. Hagan previously worked as director of sales for Seattle's KING 5 Media Group. ✨ **ELISABETH HOOKER** ('03 Comm.) is the marketing director for the Downtown Spokane Partnership. ✨

CLASSnotes

When **MIKE URBAN** began his studies through Washington State University Global Campus, he had no idea his academic journey would lead him to Pullman City Hall.

A business owner for 20 years, Urban was active in charity and volunteer work in his community of Mount Vernon. But, he says, “There was a point where I decided I wanted to start a new chapter in my life and pursue my education again.”

Due to his full-time work and volunteer schedule, finding a flexible online program was essential. “As I looked around for online programs, WSU stood out right away,” says Urban, who started a new career in accounting and finance after graduating cum laude. A few years later, he decided to pursue a master’s degree.

“I learned a ton and at times it was a challenge keeping up with school, work, and family,” says Urban, a married father of two. “But like a lot of things in life, it’s the challenging things that usually end up being the most worthwhile.”

In late 2018, Urban (’11 Acc., ’16 MBA) was offered the job of finance and administrative services director for the city of Pullman. Feeling he didn’t want to pass up the opportunity of a lifetime, Urban immediately accepted and started in January 2019. He was appointed Pullman city administrator in January 2021.



COURTESY CITY OF PULLMAN

“I couldn’t have done it without my family who supported me every step of the way,” says Urban, who believes the knowledge and skills he gained through WSU Global Campus played a significant part in being selected for the position. “Getting my degrees through WSU Global Campus put me on a path to where I am today. I’m very grateful for the opportunity WSU gave to me and where it has led me in my career.”

Urban is charged with managing the city’s assets and maintaining its financial health. “I love the work, and I’m honored to be able to serve the people of Pullman,” he says. Even after a short time, “it really feels like home.”

Though he never attended classes on the WSU Pullman campus, he says he always felt included as a member of the Cougar community. This feeling only intensified after arriving in Pullman.

“The Coug nation embraces their own in a way I’ve never seen,” Urban says. “Around here it’s all about community and supporting each other. It’s amazing to see and I’m so glad to be a part of it.” ✨

BY JEFFREY WILLADSEN

WSU Global Campus: online.wsu.edu

BILL CONROY (’05 PhD Civ. Eng.) is the new Hebo District Ranger at the Siuslaw National Forest in Oregon. ✨ **FATIMA AL-HAMLAN** (’07 MS Entom.) chairs the global health working group of Civil Society 20. She’s a scientist in the Infection and Immunity Department at King Faisal Specialist Hospital and Research Center as well as assistant professor at the College of Medicine at Alfaisal University, both in Riyadh, Saudi Arabia. Al-Hamlan joined the center as a post-doctorate fellow and global clinical scholar in 2013. In 2016, she became a research scientist and head of the Scientific Information Office. She’s a founding member and vice president of the Rofaida Women’s Health Organization. ✨ Office Moms & Dads, a nonprofit serving children entering foster care, has appointed **MEGAN (MASCHEMANN) DIXON** (’07 Gen. Stu., Hum) to its board of directors. Dixon is the business manager at Integrated

Tax Services, and lives in Vancouver with her husband, Andrew Dixon (’07 English), and two children.

KODI JO JASPERS (’10 Wildlife Ecol.) was honored by the *Wenatchee Valley Business World* as one of the 2020’s 30 Under 35 award recipients. Jaspers manages the Beaver-Powered Restoration Program for Trout Unlimited in Wenatchee. ✨ **JONAH NICHOLAS** (’10 MBA) is vice chancellor of business services at Chabot-Las Positas Community College in California. ✨ Washington state Governor Jay Inslee recently appointed **CRISTHIAN A. CANSECO JUAREZ** (’11 Busi. Admin.) to the Clark College Board of Trustees. ✨ Spokane’s Cancer Care Northwest has hired **AMANDA STOCKBURGER** (’11 Nursing, ’19 Master’s Cert. Nursing Leadership, ’19 DNP) as a nurse practitioner. ✨ **CHRISTINA L. (CRAWFORD) BEPLER**

(’12 PhD Chem.) was honored with the 2020 Work/Life Integration Award from the Society of Women Engineers. Bepler cofounded and continues to lead an employee resource group for working parents at Sandia National Laboratories in Albuquerque, New Mexico. ✨ **LIA SZASZ** (’12 Hum.) of Otis & Bedingfield in Colorado was included in the inaugural edition of *Best Lawyers: Ones to Watch* for her work in commercial and real-estate litigation. ✨ **RAQUEL C. BONO** (’15 MBA) is the new chief health officer at Viking Cruises. A board-certified trauma surgeon and retired vice admiral of the U.S. Navy Medical Corps, Bono most recently led Washington state’s medical and health care systems response to the COVID-19 pandemic. ✨ **IVAN VALDOVINOS** (’15 English and Spanish) was honored by the *Wenatchee Valley Business World* as one of the 2020’s 30 Under 35 award recipients.

Valdovinos has helped more than 400 first-generation, low-income students and students with disabilities graduate from Wenatchee Valley College and transfer to four-year universities. He volunteers for the Wenatchee High School College Mentor Program and has a master’s degree in education policy and management from the Harvard Graduate School of Education, where he focused on Latino family engagement, higher education policy, and men of color in higher education. ✨ **ISABEL BEDOLLA** (’16 Psych.) was honored by the *Wenatchee Valley Business World* as one of the 2020’s 30 Under 35 award recipients. Bedolla is a certified forensic interview and victim advocate at SAGE, a nonprofit organization that provides free services and helps support survivors of domestic violence, sexual assault, and child victims of violence in Wenatchee. ✨ **ASHLEY (WIRTA) LARIVIERE** (’16 Comm.) has joined the Yakima School District as a communications specialist.

EMILY FAUST (’20 PhD Clin. Psych.) has been hired as new provider at Spokane’s Unify Community Health. ✨ **ALIA SOULEK** (’20 Master’s Cert. Nursing Leadership, ’20 DNP Family Nurse Practitioner) has joined Providence Spokane Cardiology. ✨ LSW Architects has welcomed **NALEIGHA WILLIAMS** (’20 Arch.) to its design team.

INmemoriam

EDNA J. LAITINEN (’36 Pharm.), 105, July 5, 2020, Canby, Oregon. **RUSSELL CURTIS ROWAN** (’39 Bacterio., Sigma Chi), 101, February 16, 2019, Albion, Michigan.

DOROTHY MARGUERITE POTTS (’42 Phys. Ed., ’47 Ed.), 99, November 28, 2019, Stanwood. **HELEN LUCILE NEWHALL** (’43 Gen. St.), 93, July 11, 2018, Longview. **FLORENCE “DOLLY” MCCABE** (’44

Home Econ., Ed.), 98, October 15, 2020, Spokane. **JEANELLEN HENDRICKSON** (x’45 Lib. Arts), 97, March 20, 2020, Auburn. **LOIS M. BECKMAN** (’46 Music), 95, October 3, 2019, Tacoma. **RUTH ELLINGWOOD DORMAN** (’46 Spanish, Alpha Gamma Delta), 97, September 30, 2020, Waynesboro, Pennsylvania. **MARGARET H. BERGQUIST** (’47 Home Econ.), 87, March 4, 2016, Bellingham. **BETTY B. (CARSON) DERIG** (’47 History), 92, February 26, 2017, Emmett, Idaho. **ELLIS T. “BUD” GRAVETTE JR.** (’47 Gen. St.), 94, August 28, 2020, Rancho Santa Fe, California. **BILLIE J. HUTCHISON** (’47 Fine Arts), 96, December 26, 2019, Kennewick. **ARTHUR KOWEEK** (’47 Bacterio.), 97, November 16, 2020, Copake, New York. **COY E. LOVE** (’47 Mech. Eng.), 98, September 16, 2020, Cheney. **BEVERLY ANN MASSIE** (’47 Phys. Ed.), 95, November 14, 2020, Spokane. **MARIAN E. PEARSON** (’47 Home Econ., Delta Delta Delta), 94, January 28, 2020,

SAVE THE DATE: APRIL 14, 2021



IN memoriam

Spokane. **MALCOLM E. BURNETT** ('48 Elec. Eng.), 96, December 24, 2017, Bellevue. **ALICE CLAIRE CHOPPER** ('48 Pharm.), 93, December 16, 2018, Sunnyside. **RENA MALTBY COREY** ('48 For. Lang. & Lit.), 91, October 16, 2017, Larkspur, California. **JACK JAMISON LINK** ('48 Gen. St.), 94, September 26, 2020, Seattle. **MIKE MCCORMACK** ('48, '49 MS Chem.), 98, November 7, 2020, Medford, Oregon. **DONNA MAE POOR** ('48 Socio.), 91, December 17, 2017, Pullman. **JAMES BRYGGER BAKER** ('49 Comm., Sigma Nu), 95, August 28, 2020, Lake Oswego, Oregon. **BEVERLY J. BENEDICT** ('49 Ani. Sci., Delta Zeta), 91, July 12, 2018, Soap Lake. **FRANCES "FRAN" M. (MCDONALD) DOMPIER** ('49 Phys. Ed.), 93, July 13, 2020, Spokane. **NADINE MAE MUNNS GERKEY** ('49 Socio., Comm., '51 Ed., '64 MA English, Delta Gamma), 92, July 15, 2020, Walla Walla. **FLOYD ROY GUSTAFSON** ('49 Sci., '50 Ed.), 96, October 19, 2020, Kennewick.

HELEN SENEDA PARDEW ('49, '51 MS Phys. Ed.), 92, October 3, 2020, Eagle, Idaho. **MARLYS GAYE (BRIDGHAM) THOMAS** ('49, '51 MS Phys. Ed.), 91, January 16, 2019, Bremerton.

BILLIE BARBARA BAUER ('50 Home Econ., '53 Ed.), 90, January 17, 2019, Bothell. **DON H. HOLTZHEIMER** ('50 DVM), 95, March 25, 2020, Gresham, Oregon. **VEIKO "LENNIE" HUSA** ('50 Ag. Eng.), 95, November 7, 2020, Spokane. **CHARLES R. "BOB" MARSHALL** ('50 History, '52 Ed., '56 MEd, '58 PhD Higher Ed. Admin.), 94, September 5, 2020, Kirkland. **LLOYD ALBERT NELSON** ('50 Chem. Eng.), 92, March 10, 2020, Santa Ana, California. **FRANK S. TANAGI** ('50 Pharm.), 97, June 18, 2020, Seattle. **JAMES HERMAN WITT** ('50 Mech. Eng.), 97, October 6, 2020, Owensboro, Kentucky. **VERNA L. BENEDICT** ('51 Ed., Delta Delta Delta), 92, October 17, 2020, Sacramento. **DONALD ROY BENTLEY** ('51 Civ. Eng.),

91, May 11, 2020, Shoreline. **HERBERT M. DOUGLASS** ('51 Hort.), 96, June 20, 2020, Portland, Oregon. **EUGENE GRIMLEY DUFFY** ('51 Busi.), 96, July 17, 2020, Daytona Beach Shores, Florida. **EDWARD EUGENE GIBBS** ('51 Mech. Eng.), 95, June 30, 2020, Wilmington, North Carolina. **CATHERINE VIRGINIA HATCHER** ('51 Home Econ.), 90, July 8, 2019, Wenatchee. **VIVIAN ROSE LARSON** ('51 Elem. Ed.), 90, March 2, 2020, Portland, Oregon. **LAUREL CURRAN MORGAN** ('51 Elem. Ed.), 89, July 9, 2019, Wenatchee. **WILLIAM L. SHECKELS** ('51 Phys. Ed.), 93, May 2, 2020, Klamath Falls, Oregon. **TROY ELISHA SMITH** ('51 Pharm.), 94, March 19, 2020, Spokane. **JOANN CORKER BERG** ('52 Ed., Delta Gamma), 89, January 3, 2020, Longview. **ROY ELMER EDFAST** ('52 Mktg.), 86, February 13, 2017, Seattle. **LAWRENCE EDWARD GROSS** ('52 Ag.), 91, September 24, 2020, Vancouver. **BEVERLY ANN HINKLE** ('52 Rec.), 86, February 1, 2020, Olympia. **MARION "MIKE" LEE JENSEN** ('52 Ed.), 93, October 13, 2020, San Mateo, California. **NORMAN L. OVERDAHL** ('52 Socio.), 87, March 13, 2018, Olympia. **MABEL FRANCES HUSEBY** ('53 Home Econ.), 89, September 24, 2020, Mount Vernon. **CLAUDIA ANNE KOONTZ-GOERING** ('53 Socio.), 89, November 18, 2020, Colville. **CLARE K. MORSE** ('53 Busi.), 87, June 29, 2019, Snohomish. **BUFORD LLOYD OTEY** ('53 English), 91, July 27, 2020, Carlsbad, California. **LYLE HAROLD PIERSON** ('53 Ag.), 86, July 31, 2016, Mount Vernon. **JOHN JACOB PRIDEAUX** ('53 Police Sci., Kappa Sigma), 84, January 13, 2016, Spokane. **CLARENCE A. "RED" BURRIS** ('54 Civ. Eng.), 87, December 8, 2018, Spokane. **JOANNE IRENE DAVIES** ('54 Nursing), 87, April 15, 2020, Moses Lake. **VIRGINIA GAMMONS** ('54 Police Sci.), 87, November 16, 2019, Payette, Idaho. **KENNETH B. CREER** ('55 DVM), 95, December 4, 2019, Springville, Utah. **CLIFFORD L. GALLANGER** ('55 Police Sci.), 86, April 14, 2020, Mount Vernon. **CAROLE JO (COOKE) JONES** ('55 Home Econ.), 86, November 2, 2020, Spokane. **CLAUDE C. BARNETT** ('56 MS, '60 PhD

Physics), 86, July 12, 2015, Oak Harbor. **PHILLIP RAY HOXTER** ('56 Ed.), 90, February 28, 2018, Shoreline. **FRANK L. SHACKELFORD** ('56 Biol., '58 DVM), 93, June 18, 2020, Caldwell, Idaho. **MELVIN NEIL WESTWOOD** ('56 PhD Hort.), 97, October 31, 2020, Corvallis, Oregon. **ROBERT W. FRENCH** ('57 Comm.), 88, June 24, 2019, Cupertino, California. **JACLIN M. HEYWOOD** ('57 Home Econ.), 84, November 10, 2019, Seattle. **THEODORE V. HOUGLAND** ('57, '59 MS Elec. Eng.), 85, September 23, 2020, Mesa, Arizona. **PATRICIA (CROMBIE) KEITH** ('57 For. Lang.), 85, September 20, 2020, Sun City, Arizona. **HERBERT YO NOJI** ('57 Hort.), 84, March 26, 2019, Seattle. **DAN LEE CAMPBELL** ('58 Wildlife Mgmt.), 84, August 30, 2020, Olympia. **GARY C. ISAACSON** ('58 Mech. Eng.), 82, June 13, 2017, Bellevue. **STANLEY D. MCNAIR** ('58 Elec. Eng.), 85, May 28, 2016, Raleigh, North Carolina. **ALAN ROGER RUSSELL** ('58 Mech. Eng.), 83, September 27, 2020, Clarkston. **CHARLES E. SHALLBETTER** ('58 Elec. Eng.), 85, August 21, 2020, Lynnwood. **RONALD LEE WILDEY** ('58 Music, Sigma Chi), 86, August 17, 2020, Spokane. **JERRY GORDON COX** ('59 MS Agro.), 83, November 15, 2019, Carlsbad, California. **LLOYD RALEIGH RIDDLE** ('59 Phys. Ed.), 86, May 29, 2019, Renton. **WILLARD LESTER TISSUE** ('59 Civ. Eng.), 83, July 28, 2020, Lafayette, California.

JOSEPH D. BERGEVIN ('60 DVM), 84, October 12, 2020, Shoreline. **RICHARD "DICK" SIMON GOHL** ('60 Forest & Range Mgmt.), 86, November 12, 2020, Sweet Home, Oregon. **DALE HANEY** ('60 Gen. St.), 82, February 14, 2020, Portland, Oregon. **ROBERT LINN TINSMAN** ('60 Ed.), 81, August 3, 2020, Murrietta, California. **ALMER D. ZANDER** ('60 Crop & Soil Sci.), 84, October 8, 2020, Bellingham. **JAMES STOKLEY LOCKE** ('61 DVM), 91, August 24, 2020, Albany, Oregon. **ROBERT EARL DAGNIE** ('62 Forest & Range Mgmt.), 86, July 31, 2019, Centralia. **CECIL RAY JOHNSON** ('62 Phys. Ed.), 88, November 12, 2020, Kennewick. **VALERIE JORGENSEN** ('62

Zool.), 79, May 20, 2020, Philadelphia, Pennsylvania. **LEAH W. MORASCH** ('62 Socio.), 79, November 18, 2019, Vancouver. **DOUGLAS W. PEACOCK** ('62 Chem. Eng.), 81, September 7, 2020, Jacksonville, Florida. **GUY ULYSSES PRIEST** ('62 Elem. Ed.), 81, January 3, 2020, Raymond. **REED F. DAUGHERITY** ('63 Gen. St., Kappa Sigma), 78, July 12, 2019, Spokane. **DONNA MEDLICOTT JACOBSON** ('63 English), 78, October 14, 2020, Walla Walla. **BEAUMONT ALAN LOWER** ('63 Econ.), 79, June 27, 2020, Bellevue. **ROSANNE LEE WALTER** ('63 Music, '75 MEd.), 80, August 12, 2017, Coupeville. **DONALD E. AMSBERRY** ('64 MS Psych.), 81, March 19, 2018, Pendleton, Oregon. **HELMI SHAFIK HABIB** ('64 PhD Chem.), 86, August 30, 2020, Ellensburg. **BRUCE C. MCDONALD** ('64 Ed.), 76, November 18, 2017, Seattle. **GORDON T. OSBORNE** ('64 Elec. Eng.), 79, January 12, 2020, Kent. **THEODORE C. SPENCER** ('64 Ag. Mech.), 79,

September 26, 2020, Littleton, Colorado. **JOANNER. WASHBURN** ('64 MS Phys. Ed.), 83, September 15, 2020, Pullman. **SUE ELAINE ANDERSON** ('65 English), 76, November 7, 2019, Yakima. **JOHN THOMAS GIBONEY** ('65 Chem. Eng.), 76, December 20, 2019, Anacortes. **JEROME WILLIAM KOENIGS** ('65 PhD Plant Path.), 87, October 30, 2020, Spokane. **DALLAS P. HORTON JR.** ('66 DVM), 81, September 29, 2020, Ft. Collins, Colorado. **HAROLD F. RENSHAW** ('66 Busi.), 79, September 30, 2019, Hummelstown, Pennsylvania. **GLENN M. ROSANDER** ('66 Elec. Eng.), 77, April 23, 2020, Lancaster, Massachusetts. **JUDITH MARIE TORVIE** ('66 Phys. Ed.), 75, May 20, 2019, Bloomington, Indiana. **TWILA K. JOHNSON** ('67 MAT Math.), 79, October 19, 2020, Tacoma. **NANCY THERESA NELSON** ('67 Gen. St.), 74, March 18, 2020, Colbert. **ROBERT A. RONFELD** ('67, '70 MS Pharm.), 74, April 4, 2019, New London, Connecticut.

College of Pharmacy and Pharmaceutical Sciences

CLUB 1891 DEAN'S CIRCLE

Did you know that pharmacy was one of the first four areas of study at WSU?

Established in 1891, we are proud of the legacy we have built together. In 1913, Jessie L. Sims made history when she was the first African American to graduate from the University and our college. In 1970 we established our Drug Information Center as a service to Washington and began our pilot program for students to work in Spokane hospitals.

Today, we remain on the cutting edge of research in natural product-drug interaction, cancer, nanotechnology and much more, while educating student pharmacists to be leaders in health care.

Help us progress into the future by joining our Club 1891 Dean's Circle today.



Mark Leid, class of 1983
Dean and Professor

pharmacy.wsu.edu/deans-circle

Brelsford WSU Visitor Center

Here For You
Connecting campus & community

150 E. Spring Street, Pullman — Current hours available at VISITOR.WSU.EDU
Campus information • WSU daily parking permits • (509) 335-INFO

IN memoriam

GLENN L. SALMON ('67 MAT Gen. St.), 88, May 13, 2019, Chewelah. **LARRY DIXON** ('68 Police Sci., '70 MA History), 78, December 3, 2020, Montgomery, Alabama. **JOHN ANTHONY ZWOLINSKI** ('68 Mech. Eng.), 75, October 29, 2020, South Bend, Indiana. **JAMES WARREN ALLEN** ('69 Gen. St., Tau Kappa Epsilon), 79, August 10, 2020, Shoreline. **WILLIAM THOMAS GASKINS JR.** ('69 Pharm.), 76, November 12, 2020, Pullman.

70 ERNEST E. BENHARDT ('70 Agro.), 73, November 12, 2019, Atwood, Colorado. **JOHN CIRIANI** ('70 MAT Math.), 90, September 14, 2020, Kamloops, British Columbia. **HAROLD M. DOBIE** ('70 Hort.), 74, October 6, 2017, Yakima. **WAYNE HARVEY ESTVOLD** ('70 Ed.), 71, January 6, 2019, Shelton. **DONALD L. HOFERITZA** ('70 MAT Biol.), 82, December 26, 2019, Kenosha, Wisconsin. **CRAIG M. BELL** ('71 Psych.), 71, October 27, 2020, Vancouver. **SARAH E. CALLOW** ('71 Elem. Ed.), 71, November 8, 2019, Fircrest. **DAVID M. DALTHORP** ('71 Hotel & Rest. Admin.), 72, March 15, 2018, Pasco. **RANDY WEAR** ('71 Sci.), 70, February 12, 2020, Kirkland. **RONALD YASUI** ('71 Elem. Ed.), 71, August 23, 2020, Seattle. **DENNIS R. DAILEY** ('72 Crop & Soil Sci.), 76, May 5, 2020, Pinedale, Wyoming. **PATRICK L. MCMILLAN** ('72 Hort.), 69, June 8, 2020, Tonasket. **JOHN G. WALTON** ('72 Police Sci.), 91, February 10, 2008. **G. R. ANDERSON** ('73 Mktg.), 76, May 25, 2020, Temecula, California. **HAYDEN WAYNE HAGIN** ('73 MEd Math.), 76, September 9, 2020, Vancouver. **DORMAN LADD HOLCOMB** ('73 Arch.), 73, September 15, 2020, Vancouver. **DIANE E. MATHISEN** ('73 Gen. St., '78 MBA), 68, February 25, 2020, Anchorage, Alaska. **BECKY JILL (LAMB) JENSEN** ('74 Ed., Alpha Omicron Pi), 68, October 19, 2020, Spokane. **STEPHEN THOMAS LYNCH** ('74 Rec.), 69, May 3, 2020, Maple Valley. **WILLIAM D. CORPRON** ('75 Pharm.), 66, February 10, 2019, Yakima. **CAMERON H. COVINGTON** ('75 Anthro.), 66, April 16, 2020, Kingston. **MARK RAYMOND MAHNKEY** (x'75 Busi.), 69, April 12, 2018, Everett. **WILLIAM G. "BILL" TRUEMPER**

JR. ('75 Socio.), 66, September 6, 2020, Belfair. **MICHAEL D. DERRICK** ('76 Fine Arts), 70, June 15, 2016, Walla Walla. **BARRY LEE PERMENTER** ('76 Busi.), 66, March 7, 2020, Anaheim, California. **DONALD ORVAL TAYLOR** ('76 MA English), 70, February 6, 2020, Hoodport. **ARTHURO GERVACIO BORI** ('77 Comp. Sci.), 65, March 31, 2020, Snohomish. **LINDA ANN DELSMAN** ('77 App. Merch. & Textiles), 63, July 4, 2019, Monte Sereno, California. **MARK JEFFREY KOCHANNEK** ('78 Elec. Eng.), 64, March 13, 2020, Wilder, Idaho. **KERRI PATRICIA O'LEARY** ('78 Ed.), 65, September 14, 2020, Lake in the Hills, Illinois. **KARI LYNN (BRANDVOLD) GOSSETT** ('79 Mktg.), 63, October 24, 2020, Mohler.

80 SCOTT MANFORD HOGMAN ('80 Const. Mgmt.), 61, September 7, 2019, Tacoma. **SARAH ANNE BINGEL** ('81 PhD Vet. Sci.), 77, May 8, 2020, Hendersonville, North Carolina. **JEFF K. HEMSTROM** ('81 Mech. Eng.), 60, December 5, 2017, Granite Falls. **LILLIAN A. ACKERMAN** ('82 PhD Anthro.), 92, October 20, 2020, Pullman. **GREGORY T. RAPP** ('82 Comm.), 62, November 11, 2020, Palm Springs, California. **LAURA RUTH HENDRIX** ('83 MS Bacterio., '91 PhD Microbiol.), 69, September 6, 2020, College Station, Texas. **BRAD ALLEN HOFMEISTER** ('83 Soc. Sci.), 57, July 10, 2017, Seattle. **ROBERT A. CASSERD** ('84 Comm.), 58, September 16, 2019, Issaquah. **DAN MCCABE** ('84 Acc.), 60, June 7, 2020, Walkersville, Maryland. **PAMELA ANNETTE BRACY** ('85 Soc. Sci.), 56, May 6, 2019, Seattle. **JENIFER LEE WILLIS** ('85 Ed.), 56, December 15, 2019, Puyallup. **JODI LYNN LOUTZENHISER** ('86 Hotel & Rest. Admin., Delta Delta Delta), 55, February 11, 2020, Yakima. **DOUGLAS LEE ORIARD** ('87 Elec. Eng.), 69, September 13, 2020, Spokane.

90 EILEEN MARIE STARR ('91 PhD Ed.), 80, September 30, 2020, Spokane. **MARK R. HOWLETT** ('96 Vet.Sci., '98 DVM), 46, August 29, 2020, Caldwell, Idaho. **SHANNON ELIZABETH TURNER** ('98 Hum. Nutr.), 45, August 19, 2020, Hazel Dell. **RAPHAEL MARCEAUX**

GUILLORY ('99 MEd Couns., '02 PhD Higher Ed. Admin.), 49, November 29, 2020, Spokane.

JEREMY MARTIN KANOOTH ('01 Busi.), 43, June 16, 2020, Vancouver. **DAVID L. LUTTINEN** ('01 DVM), 45, November 7, 2020, Bremerton. **FRED G. VAN RONK** ('03 Anthro.), 78, October 19, 2020, Spokane Valley. **DEBRA (BRACKETT) GOOD** ('04 Nursing), 64, September 26, 2020, Yakima. **CAROLYN SUE CLARK-BENNETT** ('05 MEd Higher Ed. Admin.), 54, February 18, 2020, Washougal. **ELIZABETH JOANNE RUSSO** ('05 Comm.), 36, August 21, 2020, Seattle. **MEGAN ELIZABETH (ALLEN) TRACY** ('05 Mktg., Alpha Gamma Delta), 36, May 27, 2020, Portland, Oregon. **DONNA M. DILL** ('06 Nursing), 60, August 26, 2020, Sunnyside. **JONATHAN D. LARSON** ('07 Hum.), 37, November 17, 2020, Puyallup.

ALEXANDER MARK WHITING ('12 Digi. Tech. & Cult.), 31, November 5, 2020, Richland. **SCOTT NICHOLAS SCHMITZ** ('16 Mech. Eng.), 29, August 1, 2020, Everett. **THOMAS ALEXANDER "ALEX" JOHNSON** ('17 MS Geol.), 28, July 21, 2020, in Santa Barbara, California.

FACULTY AND STAFF

LINDA EDWARDSON, 74, WSU Spokane, 2000-2011, September 2, 2020, Spokane. ✨ **PAUL "PJ" JOHNSON**, 72, Veterinary Medicine, 1974-2010, September 14, 2020, Pullman. ✨ **JAMES H. JORDAN**, 88, Mathematics, 1962-1999, September 7, 2020, La Verne, California. ✨ **GLADYS VICTORIA KERNS**, 94, Crop and Soil Sciences, 1964-1988, August 16, 2020, Pullman. ✨ **JAMES S. LONG**, 80, Human Development, 1969-1998, January 17, 2016, Sutherlin, Oregon. ✨ **MILTON RUSSELL**, 88, Animal Science, 1983-1992, October 12, 2020, Prosser. ✨ **WILLIAM SCHEER**, 84, Extension, 1969-1996, November 23, 2019, Puyallup. ✨ **PATRICK STARR**, 69, Beasley Coliseum, 1986-2018, November 7, 2020, Palouse. ✨ **LESLIE WYKOFF**, 73, Library Services, WSU Vancouver, 1995-2011, September 15, 2020, Vancouver.

HOME IS WHERE



THE COUG IS.

A piece of home, wherever you go.



The Official WSU Debit & Credit Cards.
Learn more at becu.org/wsu



Federally insured by NCUA. Membership required.



BY LARRY CLARK

LASTwords



COURTESY JORDAN SCHNITZER MUSEUM OF ART WSU

Orbital notations

IT STARTS WITH three films replete with images of the nuclear plant cooling tower at Satsop, of a woman dressed in a radiation suit and gas mask in a forest and on the beach, and of breaking glass. Moving to another room, numerous glass orbs swirling with color evoke peaceful fireflies in a field, but with a slightly eerie edge.

Broken Poems of Fireflies by multimedia artist Etsuko Ichikawa is an immersive installation at the Jordan Schnitzer Museum of Art WSU, a visual poem formed after the devastating 2011 Fukushima nuclear meltdown in Japan. The globes, while telling of a summer firefly festival that Ichikawa remembers fondly, glow with uranium.

“You can see there’s an inner world,” Ichikawa says about the pulsating blue and green glass orbs she created for the exhibit. “I can see an association with the world and the ocean. The uranium and radioactive material react to UV light. If you don’t have UV light, you don’t really see it.”

“After the Fukushima nuclear disaster, I researched so much about what it is to have nuclear particles like cesium in the air or in the ocean. You don’t smell it, you don’t see it, you don’t feel it, but it’s there.”

Born in Tokyo and based in Seattle, Ichikawa has had works exhibited all over the world. She was a studio assistant with Dale Chihuly for eight years before starting her own studio in 2003. She cofounded Artists for Japan, a Seattle-based grassroots group to support the relief efforts of the Great East Japan earthquake and aftermath. Ichikawa is also a member of NOddIN, a Tokyo-based collective of filmmakers who are paying attention to various social, political, and environmental issues. ✨

The exhibition runs until March 19, 2021. Visit museum.wsu.edu to find hours and how to visit. Watch Ichikawa’s presentation about Broken Poems of Fireflies at magazine.wsu.edu/extra/fireflies.

Calling ALL Cougs!

Take it from Butch...



HELPING WSU IS AS EASY AS 1, 2, 3!

- 1 JOIN THE ALUMNI ASSOCIATION TODAY!**
Sign up this way!

Platinum Life Member
BUTCH T. COUGAR
1234567
- 2 GET YOURSELF A WSU LICENSE PLATE!**

Sorry, out-of-state Cougs
WASHINGTON WSU 01
WASHINGTON STATE UNIVERSITY
- 3 SHOW YOUR PRIDE BY GIVING TO WSU!**

BUTCH T. COUGAR
DATE: //
HELP TO THE PROGRESS OF WSU
Five hundred and No Dollars
WASH 1 to WSU! Butch T. Coug

alumni.wsu.edu/EasyAs123



Washington State MAGAZINE

SPRING 2021 ONLINE
magazine.wsu.edu



WEB EXTRAS

Lamb and mint recipes, urban wildlife maps, food preservation ideas, COVID around the world, WSU love stories



FACEBOOK

Like the WSM page on Facebook for extra content



TWITTER

Follow us on Twitter for frequent updates

eLetter

Subscribe to our email newsletter: magazine.wsu.edu/email



eMAG VERSIONS

Read the magazine as you like it—on your tablet, phone, or computer



CONTACT US

wsm@wsu.edu
magazine.wsu.edu/contact



VIDEOS

Artist Etsuko Ichikawa discusses her exhibition, *Broken Poems of Fireflies*



PODCASTS

Recent episodes of our podcast *Viewscapes* cover bats and viruses, the “Voice of the Cougs,” cooking goose, women in STEM, and more stories from this issue



INSTAGRAM

Photographs from WSU campuses and around the state

{ Navigation tools }



COVER / BACK PAGE



ENLARGE QUADRANT



RETURN TO SPREAD VIEW



PREVIOUS / NEXT PAGE



IN THIS ISSUE
CLICK ON PAGE # TO GO TO STORY



SCROLL PAGE
(IN ENLARGED VIEW)

WEB LINKS
URLS IN TEXT & ADS CLICKABLE



CLICK HERE TO EXIT
OR USE **ctrl/cmd-Q**