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**Cover:** “Young plants in the morning light” (Photo Adobe Collection)

**Left:** Seasonal reflections on Lake Crescent (Photo Mint Images)
Every year, the WSU Foundation celebrates its most exceptional volunteers, who together set the standard for excellence in service and generosity.

Congratulations to the 2021 honorees, who were recognized at the Volunteer Awards Celebration and Reception on the Pullman campus last fall.

The Gibson Award represents the highest distinction bestowed upon a WSU Foundation volunteer.

The 2021 Gibson honorees are Duane and Terri Brelsford (center), whose passionate advocacy has furthered the dreams of students, faculty, and programs across the entire WSU system.

The Weldon B. Gibson Distinguished Volunteer Award

The Brotherton Award recognizes avid supporters of both Cougar Athletics and WSU.

This year’s recipients, Clive and Shari Freidenrich, have been generous advocates for WSU students and Cougar Athletics for more than four decades.

A COUGAR CONGRATULATIONS ALSO TO OUR

2021 Outstanding Service Award Recipients

JOAN BERRY • LAURIE JOHNSON AND DAWN SMITH • RICH MCKINNEY

DR. BRYAN SLINKER • DR. JOHN TOMKOWIAK
**FIRSTWORDS**

**Beneath the surface.** Brochures for many years at Yellowstone National Park have owed visitors with natural wonders that simmered and steamed: geysers, hot springs, colorful mud. The text claims to show a primeval and volcanic landscape before human occupation. But, like most tales, there’s more going on.

Thousands of years before those brochures were printed, Native Americans lived and traveled around Yellowstone’s lakes and mountains. They saw the heated, sulfurous waters, and they mined and carved obsidian tools. Yet, what created that obsidian?

The deeper mysteries of Yellowstone’s subterranean history inspire Washington State University geologist Peter Larson, his students, and colleagues to examine remote stretches of the supervolcano’s reach. Larson’s study of the rocks altered by chemical-laden waters at Yellowstone help our understanding of its past and possible future.

The technological world also hides secrets, some of them quite sinister. As cybercrimes, ransomware, and other online chicanery increase, WSU is ramping up the education of students and professionals in cybersecurity. Houses and office buildings have their own hidden costs. They contribute significantly to energy usage and emissions, so WSU researchers are looking at ways to make buildings more efficient, and then getting that knowledge out to the public. It’ll save people money, too.

Some things shouldn’t remain under wraps, like mental health issues. For far too long, the topic has been something that wasn’t talked about. Former Coug and NBA basketball star James Donaldson (’79 Socio.) acknowledges his own struggles with mental health, and his bravery and honesty provide a model for us.

We can also learn a great deal from the life of grizzly bears. WSU’s Bear Center is home to a number of captive grizzlies—and, during hibernation, there’s a lot more going on with those bears than meets the eye. The bears’ innate ability to gain weight without getting diabetes or high blood pressure, and sleep for months without losing muscle or bone strength, has implications for how we treat human maladies.

Resilient grizzlies emerge after winter from dens in Yellowstone, amid evidence of a deep volcanic stirring, and reveal much about ourselves and our planet.

**EDITOR:** Larry Clark ’04

**ASSOCIATE EDITOR:** Adriana Jarovich

**ART DIRECTOR:** John Pesson

**STAFF WRITER:** Rebecca E. Phillips ’78, B’DVM

**CONTRIBUTING WRITERS:** Alyson Boston ’17, Will Ferguson, Nick Gibson ’22, Tee Hilding, Brian Hudgins, Jason Knapp ’03, Lauren Paterson, Wenda Reed ’78, Carie Scozzaro, Rachel Webster Hrm ’11, Sara Zasek

**PHOTOGRAPHERS:** Sam Beebe, Lisa Edge, Dave Hinx ’05, Robert Hulmer, Taylor Jones, Peter Larson, Chris Parrick ’84 PhD, Ari Reichen, Daniel Schweinert, Ed S. Warren

**WSU PRESIDENT:** Kirk H. Schulz

Contact Kirk PresidentsOffice@wsu.edu | 509-335-4200 | @WSU_CougarPres/Twitter

**VICE PRESIDENT, UNIVERSITY MARKETING AND COMMUNICATIONS:** Phil Weiler

**ADVERTISING:** Contad Lowell Green | 206-70-5838 or lowell@everedify.com

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Connections

When I read the article about the Daily Evergreen, it reminded me of a fortuitous coincidence.

In the fall of 1966, the Daily Evergreen decided to help prepare students for that fall’s election by running columns by the presidents of the Young Republicans and the Young Democrats.

I was then a graduate student in political science and was serving as the president of the Young Republicans and the Young Democrats.

Steve Dahmen, a great-uncle to my great-grandfather, served as president of the YDs. I was then a graduate student in political science and was serving as the president of the Young Republicans and the Young Democrats.

Steve Dahmen, a great-uncle to my great-grandfather, served as president of the YDs. We formed a friendship and a connection that lasted over the years.

Almost three decades later, when I was serving as Washington’s Secretary of State, we had extremely challenging legislative proposals regarding vote-by-mail, the top-two primary, and extensive reform following the Gregoire-Rossi recount. Fortunately for me, Sam Hunt chaired the House committee that handled that legislation. He sponsored many of the bills and helped pass more.

Our Daily Evergreen connection helped us make our state’s election system the best in the nation.

S.M. REED (’63 HISTORY, ’68 MA POLI. SCI.)
WASHINGTON SECRETARY OF STATE, 2001–2013

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TALKback

Still cheering

I wanted to thank you and Joshua Snyder for sharing the beautiful photo of the wheel fence and Dahmen barn on the inside cover of the Winter 2021 issue. The fence was built by my great-uncle, Steve Dahmen. My great-aunt, Junette, was an artist and Uncle Steve said the fence was her art. Both Uncle Steve and Aunt Junette were huge Cougar fans, attending home and away games for football and men’s basketball. I know they would both be thrilled to see the photo; they loved hearing from people and seeing photos of their home place all over the country. They’ve both passed on but I’m certain they are still cheering for their Cougs.

JANN DAHMEN-MORBEEK
WSU PULLMAN, FACILITIES SERVICES

More to the story

As the author of Polly Bemis: The Life and Times of a Chinese American Pioneer (2020), editor of Hidden Heritage: Historical Archaeology of the Overseas Chinese (1993), and author/editor of other works on Asian Americans in the West, please allow me to point out several errors in the otherwise fine article. “How Chinese Pioneers Helped Build the Pacific Northwest” in your Fall 2021 issue.

First, Polly Bemis’s “Chinese name” was not “Lalu Nathoy” (p. 3) — there is no evidence for that name. “Polly Nathoy” is on her 1894 marriage certificate; her surname was recorded as Hathoy at the Idaho County Courthouse. The earliest occurrence of the name “Lalu Nathoy” seems to be in 1947, in Volume 1 of Sr. Alfreda Elsensohn’s Pioneer Days in Idaho County, p. 97. There she states, “As previously indicated, in the Certificate of Marriage, her Chinese name was Lalu Nathoy.” In a copy of that document the name Lalu is not mentioned.


PRISCILLA WEGARS
AFFILIA TE ASSISTANT PROFESSOR, AND VOLUNTEER CURATOR, ASIAN AMERICAN COMPARATIVE COLLECTION, UNIVERSITY OF IDAHO

Editor’s Note: Read the Chinese tunnels article at magazine.wsu.edu/extra/Chinese-tunnels.

Johnson Hall at WSU Pullman is slated to be demolished and replaced with a new agricultural research and USDA building. What are your memories of Johnson Hall? Send them to us at magazine.wsu.edu/memories-of-johnson-hall

S.A. CLARK (’84 Chem.) visited Lhasa, Tibet, and Beijing, China, in 2018. He was operations director for health care testing and analysis company Quest Diagnostics for 14 years and is now with the US Geological Survey as director of the Laboratory and Analytical Services division.
Meeting a state-mandated energy use reduction goal in 2030 will require both fresh ideas—and some serious in-depth training.

In the ongoing fight against climate change, Washington State University is addressing one of the largest, and largely unknown, climate offenders: buildings.

Residential and commercial buildings accounted for nearly 40 percent of energy usage and 36 percent of carbon emissions nationwide in 2020, according to the US Energy Information Administration. In Washington state, residential buildings account for nearly a quarter of all energy usage.

In 2018, Washington state legislators passed one of the strictest energy codes in the nation, as part of the state’s larger effort to reduce energy consumption by 70 percent by the year 2030.

Ryan Smith, director of the School of Design and Construction at WSU, says it will take a combination of fresh ideas and proper training for those in the industry to meet that goal.

“We have a pent-up demand for affordable housing in this country, and we have an unprecedented rate of homelessness. I believe as an architect and as an academic, that shelter should be a fundamental human right,” Smith says. “So the only way that we can deliver affordable housing over the long term is to ensure that that home is first built affordably and then can operate affordably.

“Climate change is real—if we can’t find ways to build and operate our homes and apartments more efficiently, we will run out of resources and it will cause a future that we can’t come back from,” he says.

Smith says WSU is taking a multifaceted approach to prepare students to address the intersecting housing and climate crises. The Integrated Design and Construction Lab (IDCL) recently entered a long-term partnership with Palouse Habitat for Humanity to build and study affordable, energy-efficient housing.

The school is also developing a curriculum focused on energy efficiency training for both students and professionals, thanks to a three-year, $750,000 grant from the Department of Energy.

Omar Al-Hassawi, assistant professor in the School of Design and Construction, is leading the team establishing the curriculum. Starting in 2023, WSU will offer undergraduate, graduate, and professional certificates, followed in 2024 by a new master’s degree.

“The Department of Energy identified competency gaps that we need to fulfill,” Al-Hassawi says. “The main areas we’re covering are energy modeling and performance of buildings during the design phase, mechanical system design, codes and standards at the...
After days of waiting in line at Kabul International Airport, people who had worked side-by-side with Washington State University faculty were turned away.

Under the US Refugee Admissions Program, Afghan nationals who worked with WSU on its English language and agricultural outreach projects in the country could apply for refugee status in any country with a US embassy, allowing them the chance to resettle in the United States. According to Whiteman, the US Air Force evacuated 125,000 American citizens, third-country nationals, and Afghans—one of the largest air evacuations in history—only a handful of the 110 people that contacted WSU's help were able to leave before the United States withdrew from Afghanistan on August 30.

On September 5, the Taliban stopped allowing evacuees to leave on planes. With the borders closed, many Afghans went into hiding to escape punishment for “un-Islamic activities,” such as working with foreign entities and educating women. "It’s really personal when you know people,” says Scott Avery, director of graduate assessment at WSU and former evaluation specialist for the Afghan eQuality Alliances and Learning English Support projects. “We would’ve probably gotten more out of it if we had more time.”

Paul Whitney, associate vice president of International Programs, says the outcome was gut-wrenching. "They were committed to making a difference. We were working with foreign entities. They were trying to build a better future for their country because they believed in their country and they believed in themselves.”

"What we were after is that the capability of small holding farmers to be more self-sufficient in agriculture production,” Pannkuk says. “We wanted farmers to be more resilient after we leave, and leaving Afghanistan in a better place.”

Oumarou Badini directed WSU’s Afghan Agricultural Extension programs for six years in Jalalabad, the capital of Nangarhar, a province that shares a border with Pakistan. "Despite dangers and the conflict-laden environment in which we were working, I left Afghanistan in 2017 with the feeling that what knowledge we had contributed to a betterment of the most important resource in a country: the human resource,” Badini says. "But in the blink of an eye in 2021, everything seemed to be going downhill. The sentiment of loss and wasted time is still echoing in the minds of all those who participated in this endeavor.”

Retired administrator Mike Whiteman managed the guest house used by the five universities in their Kabul headquarters and overseas program staff during WSU’s final three years in Afghanistan. "We were trying to improve the Ministry of Agriculture, Irrigation, and Livestock’s ability to provide extension services across the country,” Whiteman says. "Most of the agents didn’t have a strong agriculture background, so they were trying to teach farmers things they didn’t really know themselves.”

The program’s location in rural Nangarhar made it too risky for students to participate. But Whiteman says they didn’t face opposition from the Taliban. "We were working in these areas that had huge security issues, but these farmers were benefiting from what we were doing, and we were left alone,” Whiteman says. "All I can do is hope that we had enough of an impact that what knowledge we left behind will have the momentum to perpetuate itself.”

Whiteman says the work WSU did in Afghanistan, as well as its outreach work in Malawi and other countries, is in step with the university’s land-grant mission. "We’re bringing the expertise of WSU to help solve problems around the world. Our students, our scholars, and the state of Washington benefited from those experiences,” Whiteman says. "I think WSU can be extremely proud of the work that was done there, that we helped improve the ability of Afghan farmers to feed themselves and their people.”

And though Afghanistan’s future seems bleak, Avery says the Afghan people are survivors above all. "We met female faculty members who had gone through the Russian occupation, civil wars, the US invasion, and they were still there,” Avery says. "They were committed to making a difference for their country because they believed in their country and they believed in themselves.”

Leaving Afghanistan: WSU’s legacy

"I was trying to improve the Ministry of Agriculture, Irrigation, and Livestock’s ability to provide extension services..."
Who’s been sleeping?

This last winter, the 11 grizzlies at the WSU Bear Center were doing what they do best: a lot of nothing, and Washington State University researchers want to know exactly how they do that so well.

In hibernation, bears pack on the pounds without getting diabetes or high blood pressure, sleep for five to six months straight without losing muscle mass or bone strength, and then, wake up and do it all over again. Understanding how they do this has a host of implications for humans from treating diabetes to preventing muscle atrophy in hospital patients and even allowing astronauts to withstand long periods in space.

“There’s an awful lot that bears can teach us in terms of their resilience to the development of disease,” says Heiko Jansen, WSU professor in integrative physiology and neuroscience. “We really have no indication that animals going through hibernation and being inactive suffer from all of the things that we do—and they do all this year-in, year-out. It’s a reversible process which leads to the question: how is it that these animals can simply turn that switch on and off, and survive?”

Decoding that switch is proving enormously complex. Using RNA sequencing, WSU researchers and their colleagues published a study in 2019 that identified thousands of genes involved in bear hibernation. In the fat-storing tissue called adipose, more than 900 genes expressed themselves differently during the warm months, when bears gorge themselves on food, than during hibernation.

WSU is well-positioned to take on these difficult questions as the home to the Bear Center, the only research facility in the world with a captive population of grizzly bears. Then, there is the research team with comprehensive expertise in physiology, genetics, ecology, and nutrition, whose published studies are drawing increased recognition to the research potential to help understand bear ecology and provide insight into conservation as well as human health.

“We’re getting more and more interest from other researchers that bears might be a good model for what they’re studying,” says Charles Robbins, the wildlife biologist who first launched the bear program at WSU 36 years ago.

Robbins’s work in nutrition with the captive grizzlies combined with investigations into wildizzly bear and pook bear diets has led to a healthier, more fat-heavy diet for captive bears of all kinds. This work demonstrates one of the keys of the center, Robbins says.

“If you just study captive bears, or just study wild bears, there’s a severe limit to what you can do,” he says. “By putting them together, we can learn so much more.”

Then, there are the human health implications. Robbins and Jansen are currently collaborating with Texas A&M researchers on a muscle atrophy study in the bears that holds promise for helping humans recovering from bedrest as well as for astronauts whose whole muscle from prolonged periods without gravity. The WSU scientists are also exploring ways to induce hibernation in other animals, a line of inquiry that might one day help humans take extra time off in space.

The bears seem eager to help. All 11 grizzlies at the center come from one specially selected wild ursus arctos family. They stand on scales to be weighed, and even the biggest among them willingly offer their hind legs for blood draws. Earlier this summer, a greatly named Frank demonstrated how that worked. When Bear Center manager Heather Keepers opened the gate to his enclosure and called him, he am¬bered over to a special place in theorial bar fencing and stood up, towering above Keepers as she stretched up an arm to offer him a bottle full of honey water.

After he had a good taste, she moved the bottle down, and the bear promptly sat all 609 pounds of himself down and stuck his hind legs through two paw-sized gaps in the metal bars. Undergraduate volunteers rubbed his legs while he sharped at the bottle. Each time Frank responded well to a request, Keepers marked it with a sound from a hand-held clicker as part of a training method based on positive reinforcement.

This was just a practice run, but despite the proverbial warnings over not poking bears, Keepers says the grizzlies don’t mind a needle jab as long as the honey is flowing.

“We work for money—they work for honey,” says Keepers. “That love of sugar is a key scientific question, too. In a recent study, the researchers fed bears the simple sugar glucose at the wrong time of year. During hibernation, bears are not eating, urinating, or defecating. During that time. Through the glucose study, the researchers learned that feeding during that period did interfere with the bears’ ability to hibernate. The study served as an extra warning to humans not to feed bears and provided an opportunity to see what’s happening when the glucose is introduced.

WSU evolutionary geneti¬cist Joanna Kelley is currently using cell cultures taken for that study to investigate which genes are being activated in response to the ingestion of glucose before, during, and after hibernation. Her research team hopes to identify proteins that are changing the cells’ uptake of the sugar-regulating hormone, insulin. Diabetes in humans occurs when the body loses its ability to produce or respond to insulin.

“The ultimate goal is to translate all the things that we’re learning from insulin resistance in bears to humans,” says Kelley. “It’s a long road, but what we’re finding by looking at the bears is pretty fascinating.”

The Bear Center only draws blood from the bears a few times a year. Those samples are scientific gold for researchers not only at WSU but all over the world. The team grows cell cultures in petri dishes and freezes samples, so that they can be sent to researchers when they are investigating new questions. It’s almost like a library of cellular and genetic information, one that cannot be gathered easily from bears in the wild.

While 11 bears is not a huge number for animal models when compared to mouse studies, there are hopes to expand the center if funding can be found. Regardless, Jansen says, with careful work, the Bear Center researchers are able to design experiments with a lot of scientific rigor.

“We have a great community here that really loves the bears,” says Jansen. “It’s a vibrant group, and we collaborate with people all over the world to help them answer questions. That’s based on the recognition that what we have here is unique.”

By Sara Zaske
For the love of a burger

BY REBECCA PHILLIPS

ANYONE WHO’S SPENT MUCH TIME IN PULLMAN likely remembers Cougar Country and its signature burgers, baskets, and custard, to die for by sauce. New, those items and more are available in a new take-out restaurant in the WSU Pullman Compton Union Building.

The satellite cafe, named Cougar Country Underground, opened its doors to students, staff, and visitors last November.

“Excited to be back on campus,” says owner Michael Wagner (78 Ed.).

Wagner bought the original Cougar Country Drive-In when it went up for sale in 2019. With the addition of Cougar Country Underground, he continues the college town’s long love affair with hambugers and other fast food.

You might say the attraction began on May 15, 1948, when Chuck’s Drive-In Restaurant opened on the south end of Pullman, offering residents their first taste of car-hopped burgers, shakes, and fries. By 1954, two more were in business: Smoothies, a drive-in ice cream store, and the celebrated Burgerville, which sat in a drive-in ice cream store, and the celebrated Burgerville, which sat in a

During the years, however, Cougar Country has remained a community favorite. For their fortieth anniversary in 2013, the restaurant celebrated by cutting their menu prices back to those first charged in 1973.

Wagoner, who began eating Cougar Country Burgers during his student days at WSU, promises to offer CUB visitors the same overall menu along with a few new items such as buffalo and chicken sandwiches, and Zoe’s coffee.

And for those who prefer a more plant-based option, Wagner suggests their new black bean burger or perhaps the Butch Beyond burger, affectionately dubbed the "BBB.

Special thanks Whitman County Historical Society

1986. It was soon followed by Aby’s Burger King, and Dairy Queen.

Throughout the years, however, Cougar County has remained a community favorite. For their fortieth anniversary in 2013, the restaurant celebrated by cutting their menu prices back to those first charged in 1973.

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They are cheesemakers, bookbinders, cowboys, bat wranglers, window washers, and lab managers. Often behind the scenes and performing essential work at Washington State University, staff members keep the university humming along. These are just a few of the hardworking people at the heart of WSU’s research and education mission.

JOE BECK, ZAC HOWELL, and JOHN JANE share one of the most illuminating jobs on the Pullman campus. As WINDOW WASHERS responsible for cleaning roughly 120,000 windows, they let in the light while also getting a first-hand look at academic activities.

“People willingly invite us into their space and tell us about their research or whatever they’re doing,” says Beck. “One time, I looked down a hallway and saw someone with a black puppy. But when I walked down there, it was a six-week-old grizzly bear. It was cool. His hair was like sandpaper.”

Beck and Howell follow in the capable footsteps of Barry Birdsell, who recently retired after 47 years on the job. Like Birdsell, the new crew has a few favorite buildings including Fine Arts, the TV and radio stations, and the raptor wing in the College of Veterinary Medicine.

“We see such interesting stuff,” says Howell. “It always changes.”

“When I get introduced to people for the first time and I tell them I make Cougar Gold cheese, they don’t believe me,” says SARAH BEALE, HEAD CHEESEMAKER AT WSU CREAMERY. “It’s kind of fun. Especially locally, everyone knows Cougar Gold.”

Beale has managed the day-to-day cheese-making operations at WSU Creamery for three years. Most days, she leaves her home north of Colfax at 5:30 a.m. in order to be at work by 6:30 a.m.

“We’re in the process of increasing production,” she says. “It’s half technology, half art. There’s a lot of science behind it, but it’s also a lot of feel.”

Cougar Gold, Smokey Cheddar, and Natural Cheddar take just over 24 hours to go from raw milk to the can. Viking cheeses, with their higher moisture content and lower acidity, are processed and canned in eight to ten hours.

“I have a lot of favorite flavors,” Beale says. “The Gold is obviously very good. I probably prefer the Viking cheeses, which are closer to a Monterey cheese.”

RACHNA NARULA got her first pair of glasses when she was in the first grade, and she’s been curious about eyes ever since. Now the OPTOMETRIST AT COUGAR HEALTH SERVICES (CHS), Narula says her position gives her a unique opportunity to assist and educate WSU Pullman students.

Partially funded by a student health fee, CHS offers on-campus medical, counseling, vision, and pharmaceutical services.
“Whether it’s primary care or psychology, we’re all in the same building,” Narula says. “It’s nice to go upstairs and talk to other providers to get more perspective. There’s a lot of collaboration.”

They provide workshops on stress management, substance use, and violence prevention as part of their health promotion efforts. Narula also gives presentations to students interested in the optometry field.

“We do a lot of education,” Narula says. “With students, it’s typically their first time navigating health care on their own.”

Narula provides routine eye exams, contact lens fittings, and treatment for conditions like dry eye, allergies, diabetes, macular degeneration, and glaucoma. She also offers same-day emergency appointments.

Managing two research labs can get tricky, especially when you throw in bats and zebrafish. Haywood also saw a rise in designated spaces—such as bonus rooms, libraries, and places family members can escape to when needed—as well as home-office remodels, in-home gyms, and more heavy-duty, performance-based fabrics and easy-care surfaces.

“Our ‘big easy’ mantra says a well-designed home makes us happier, and that is our focus,” says Edler, whose companymagnified By Design is based in Yakima. “I want to provide spaces that better align people’s lives rather than being a box,” she says. “It’s about thinking with purpose.”

The professional accreditation prepared Edler to create sustainable building practices. She advocates for collaboration toward a cohesive, whole-building design. “It’s a service-oriented approach she honed at WSSU while working with the Rural Communities Design Initiative as well as through the national LEED 2016 Advanced project, which focuses on sustainable building practices. The professional accreditation prepared her to bring our National Council for Interior Design Qualification certification,” Fair says.

“I want to provide spaces that better people’s lives rather than being a box,” she says. “WSSU’s program emphasizes designing with purpose.”

**“Our ‘big easy’ mantra says a well-designed home makes us happier, and that is our focus,” says Edler, whose companymagnified By Design is based in Yakima.**
ANDRÉ PICARD JR. picks up the hand drum and, in a strong resonant voice, begins singing a Nez Perce song to his rapt student audience. “Our music is not written down anywhere,” says the visitor to the Washington State University ethnomusicology class. “I could sing you my mother’s songs and you’d know exactly where you are, but you would never see it.”

Picard is a Nimíipuu (Nez Perce) tribal member from Lapwai, Idaho, who on Indigenous Peoples’ Day last October spoke to several classes taught by associate professor of music Melissa Parkhurst. Picard teaches Native American music in the Pacific Northwest and has recorded oral histories and hundreds of songs of the Nimíipuu both in the field and at WSU School of Music recording studios. “A lot of what I do is recording the culture-bearing singing songs and talking about the history of how music developed in our culture,” Picard said. “I hope to eventually publish an antholgy that would be useful for the tribe.”

Parkhurst has recorded a range of music performed by Picard and his wife and sons. “The last session they did was all stick game songs,” she says. “Stick game is a traditional guessing game that shows family attachments and is popular in the Northwest. While one team hides bones in their hands, the other team from guessing who’s holding the bones.”

Those recordings will eventually join a large body of earlier music collected by Loren Olsen, professor emeritus of music and Native American studies. “I got to know the Nez Perce community for several decades and set up the Nez Perce Music Archive,” Parkhurst says. “He compiled all known sound recordings of the Nez Perce from 1877 through 1974—over 100 hours of music. After I left Berkeley a body of historic recordings known as the Sam Morris Collection,” she says. “Morris was a Nez Perce tribal member who made recordings with his own Edison phonograph between 1901 and 1912. There are around 60 songs of his friends and family members singing a wide variety of genres, all recorded on wax cylinders.”

In the 1980s, those cylinders were discovered for sale online and brought to Olsen’s attention. He helped WSU acquire and later transfer them to the tribe to help preserve the Nez Perce Music Archive. The recording machine remains housed in WSU Manuscripts, Archives, and Special Collections.

“It’s a really precious body of music,” Parkhurst says. “That of my work with a cent-
grant from the WSU Center for Arts and Humanities will be to continue recording Nez Perce singers. We’d like to see it go beyond 1874 to young people who choose to hear the voices of their grandparents—to know Nimíipuu culture alive and thriving today.”

Parkhurst collaborated with Olsen on an upcoming book to be published through WSU Press entitled Nez Perce Songs of the People. In 2014, while teaching in Oregon, she published To Win the Indian Heart: Music at Chemawa Indian School, an account of music-making practices at the nation’s oldest continuously operating Native American boarding school, outside Salem.

“Chemawa impacted Native families all over the Northwest including the Nimíipuu,” Parkhurst says. “I want to minimize the trauma so many thousands of children experienced in the boarding school system, but I do want to portray how music coding often gave these children the friendships and skills that helped them get through some of life’s challenges.”

Instead of causing the children to assimilate as the school had hoped, she says music-making activities often put protective factors in place like the presence of a primarily incoming adult as social bonding with peers, a sense of competence on their instrument, and sometimes even pride in their anthropologists.

With COVID-19 vaccines now readily available, Parkhurst and her team hope to resume documenting the Nimíipuu peoples’ musical heritage through field recordings planned for the spring and summer of 2022.

One of her last pandemic recording sessions took place in 2019 at the Talmaoks Camp, a 122-year-old Nez Perce Presbyterian church camp near Oxbow, Idaho. “There were kids, adults, and elders all gathered there for two weeks with daily church services and kids camp. I told the kids that we recorded singing songs in English as well as Nez Perce translated hymns.”

“Mothers want to documenting this traditional Nimíipuu culture is just one way we can serve the First Nations people on whose land the WSU Pullman campus is located.”

Putting down roots

BY LARRY CLARK

The path wasn’t easy to Puget Sound, but George and his family had a trail to settle in the American West. They weren’t the only settlers looking for a new life on the frontier. Trees, when cut, continue the farm’s success with grain and produce that reach a valuable region not only regionally, but also internationally such as the 1832 Chicago Exposition.

Owen was elected to the State House of Representatives in the new state of Washington in 1889. The first black legislator in the state, his priorities centered around agriculture and education. He passed Washington state’s first civil rights bill on March 27, 1890.

The following day, the legislature, with Owen leading the way, passed a bill “to establish a State Agricultural College and School of Science.” That college in Pullman eventually became Washington State College, now WSU.

More than 130 years later, on November 19, 2021, a monument to George Bush and his family’s pioneering legacy was dedicated at the state capitol campus in Olympia. A duplicate monument will also be dedicated on the WSU Tri-Cities campus to honor William Owen Bush’s role in Washington State’s founding.

FIFTEEN YEARS LATER, DERRICK LOW STILL REMEMBERS WHAT HE WAS THINKING WHILE RUNNING UP THE HILLS OF SUNNYSIDE PARK IN THE PULLMAN SUMMER HEAT.

“Turnaround Year”

Across the Pacific Ocean and several time zones in Florida, Low’s teammate, Kyle Weaver, reminisces, “You couldn’t script that season. Not even in the way we were building the program.”

The seeds were planted in 2003 when head coach Dick and Tony Bennett watch the Cougar men’s basketball team play in 2004. Courtesy WSU Athletics

The following season, the Cougars once again advanced to the second round of the tournament, this time facing Notre Dame in Denver. For his pregame speech, Tony brought back a reminder of the Vanderbilt game. “We played the best we could,” Low says of coach Bennett. “He knows exactly how to motivate his players,” Low says of coach Bennett. “He knows exactly how to motivate his players.”

The seeds were planted in 2003 when Dick Bennett out of retirement as head coach. They constantly encouraged the way we were building the program.”

The moment when Tony and the players knew they had turned the corner was a national championship in 2019; however, it is the players from the 2006–07 team who still hold a special place in his heart. “All of the guys stepped up,” Tony says. “I remember saying, ‘I want you to take a look at us. We got a chance to change the script.’ Tony says, “It’s going to take you to stand in there and not flinch.”

“The guys stepped up,” Low says. “They were such a key bringing my dad out of retirement as head coach.”

As Tony spoke, he held up a picture of the scoreboard displaying the final score. The seeds were planted in 2003 when head coach Dick and Tony Bennett watch the Cougars men’s basketball team play in 2004. Courtesy WSU Athletics

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**The Cup runneth over**

**A RECORD-BREAKING VICTORY** By the resilient Washington State University football team last November brought the coveted Apple Cup back to the Palouse for the first time since 2012.

Led by Marques Tuiasosopo’s arm and leadership, and finds up on both sides of the ball in Seattle, the Cougars handed the University of Washington Huskies their largest margin of defeat in Apple Cup history at 40-13. The Cougar team dominated the game, especially in the second half. The defense stifled the Huskies, led by senior linebackers Jahad Woods and Justus Rogers, and senior safety Armani Marsh’s pick-six to cap off the game.

Senior running back Borgen carried the ball a career-high 22 times for 129 yards and two touchdowns, which tied him for most touchdowns in WSU history.

With their vast stores of personal data, Washington State University and other higher education institutions are prime targets for hackers looking to graduate from small-time credit card theft to big-time virtual havoc makers.

Ransomware attacks, in particular, have become the education sector harder than any other industry during the pandemic.

Nearly half of all universities and K-12 schools globally were targeted by ransomware in 2020, according to a recent survey of IT professionals by the cybersecurity firm Sophos. This included attacks against the University of Utah and the University of California, San Francisco, which both forked over large ransoms to recover data for their students and staff.

It wasn’t just the veteran players who got in on the fun. Sophomore quarterback de Laura slung the ball with over 84 percent accuracy to freshman Dye Zhuang-Stirring and redshirt sophomore Donovan Dilla. Senior receiver Travis Harris and Calvin Jackson Jr. also caught plenty of passes.

The WSU faithful poured onto the field after the final whistle to celebrate with the team and coaches.

The Apple Cup took place in a time of turmoil, not only with the pandemic, but for the coaching staffs of both the Huskies and the Cougars.

The UW team had earlier fired its coach and offensive coordinator, while WSU head coach Nick Rolovich and four assistant coaches had their positions ended in October due to noncompliance with the COVID-19 vaccine mandate for state employees.

WSU defensive coordinator Jake Dickert took over the reins, and the team rallied for the remainder of the season with an astounding Apple Cup win and chance to play at the Sun Bowl on December 31.

About a day after the Apple Cup, WSU Athletic Director Pat Chun announced that the “interim” tag was removed and Dickert would become the 34th head football coach in program history.

**Stop the crime that pays**

With the threat of ransomware has always been in the back of the mind, there has really come to the forefront over the last three years or so and continues to pick up, says Tom Androesi, former assistant vice president and chief security officer at WSU.

He worked at the university for 19 years, until last December. “Email is the primary threat vector, and universities are so heavily targeted because users often have account credentials that enable them direct access to their own data.”

Adding up the costs of downtime, repairs, and lost opportunities, the average ransomware attack cost educational institutions a staggering $2.73 million in 2020.

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**Ransomware attacks**

Ransomware attacks impact large and small businesses alike. The cost of a ransomware attack can be astronomical, with companies potentially losing millions of dollars in the event of a breach.

Ransomware strikes when cybercriminals infiltrate a company’s network, encrypting the data and demanding a ransom in exchange for the decryption key. If the company fails to pay the ransom, their data remains inaccessible, leading to lost productivity and financial losses.

For example, a ransomware attack on a hospital can lead to lost medical records, delayed treatments, and even loss of life. Similarly, a ransomware attack on a financial institution can result in financial losses, reputational damage, and legal consequences.

Ransomware attacks have become increasingly sophisticated, with cybercriminals employing advanced techniques such as phishing, social engineering, and malware to infiltrate networks.

The rise of cybercrime means that businesses of all sizes need to take proactive measures to protect their data and prevent ransomware attacks. This includes implementing strong cybersecurity practices, keeping software and systems up to date, and regularly testing and updating security protocols.

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Asparagus

BY ADRIANA JANOVICH

TENDER SPEARS POKE UP THROUGH THE EARTH, SIGNALING SPRING.

The fast-growing stalks—harbingers of the new season and more good things to come in the garden—are among the earliest crops of the year, emerging when soil temperatures reach around 50 degrees. They’re also among the most labor-intensive.

As you pile bacon-wrapped asparagus atop a serving platter or place a pickled spear into a tall and tangy bloody mary, consider this: each individual stalk is cut by hand.

Harvesting asparagus is stoop labor, performed with bent backs and hip baskets holding up to 15 pounds of the delicate, herbaceous, earthly vegetable. Cutters rise before dawn, donning headlamps to help them see stalks rising from still-darkened fields. Shoots are sliced at their bases with a V-shaped knife and a swift and forceful jab. They’re sorted and packed before shipping from throughout the Columbia Basin and Yakima Valley to grocery stores around the country and Canada.

At the industry’s peak in 1990, when canned asparagus was king and Washington state led global production of green asparagus, farmworkers here cut 102 million pounds from 30,000 acres. Today, local farmers grow 22 million pounds on roughly 4,500 acres, the focus is on fresh, and competition is fierce. Despite its drop in acreage and production, Washington remains among the top three asparagus-growing states, along with California and Michigan. And it’s known for its high-quality crop.

Asparagus—mostly green, sometimes purple, rarely white—grows all year, but the best stalks come from fields that are cultivated more than 10 years, where it originated around the Mediterranean Sea, growing from Syria to Spain. Ancient Greeks, Egyptians, and Romans all enjoyed asparagus. The cookbook De re culinarian, or De re coquinaria, believed to date from the first century CE, contains a recipe for an asparagus-and-herb omelet. Frescoes found at Pompei depict bundles of asparagus.

The perennial plant is dormant most of the year. But, during the height of growing season, it can sprout anywhere from five to seven or more inches in a day. Long, straight spears are prized. Crooked shoots are culled. So are really thin ones, which drain nutrients from more robust stalks.

Once tips begin budding, asparagus turns tough and fibrous, so it’s best enjoyed while it’s young. Choose firm spears with compact tips, and take a sniff. Asparagus lets you know when it’s been sitting too long. More and more, it’s traveled here from Peru or Mexico.

In 1991, around the height of the War on Drugs, the United States enacted the Andean Trade Preference Act, giving duty-free imports and grants to Andean countries trafficking cocaine into North America. Peruvian asparagus, heavily subsidized by the US law, was allowed to enter America tariff-free. Canneries in Dayton, Wallowa, and Toppenish closed.

Today, America’s asparagus crop confronts overseas competition that didn’t carry much weight 30 or 40 years ago. And not all US retailers are willing to pay a premium for Washington state asparagus, which costs more than foreign-grown spears. Labor and production costs drive up the price. Plus, cutters can be hard to find and keep.

Hand-harvesting “exposes workers to harsh outdoor environments, repetitive hand movement, continuous bending, and other risks for physical injury,” says Minjo Karkee, assistant professor in the Department of Biological Systems Engineering at the College of Agricultural, Human, and Natural Resource Sciences at Washington State University. “In the long term, we’d like to have machines perform hard-labor jobs, like picking asparagus.”

Karkee leads a research program in agricultural automation and mechanization with an emphasis on sensing technologies for apple and cherry crops. While his department has not worked on asparagus for about ten years, he notes it’s “a unique crop that requires selective harvesting every day for an entire growing season while other crops generally require one or two passes.”

That’s a main challenge in mechanizing the short but intense harvest, which runs six to eight weeks from April to June. So is limiting damage to crowns and spears that haven’t yet come up. Says Ten Waters (’22 Biol., ’24 MS, ’25 PhD Entron.), the regional vegetable specialist at WSU Extension of Franklin and Benton Counties: “There are a lot of variables in choosing which spears to harvest, and machines have had difficulty honing in on those things like the human eye does.” Plus, he notes, “asparagus has to be picked at the right time. If you wait or miss harvest by a day, that could be the difference between breaking even, making money, or losing money.”

Some customers are willing to pay more for organic asparagus, which has seen an increase in acreage in recent years. So has America’s appetite for asparagus. US asparagus consumption is slowly creeping up, from 176 pounds per capita in 2018 to 183 in 2020.

Overall, though, US asparagus acres are declining, from nearly 83,000 in 2000 to 20,000 in 2020. America imports nearly seven times the amount of its total asparagus production.

Waters encourages consumers to buy asparagus locally and seasonally, looking for the band wrapped around bunches that proudly proclaims “Washington” as its origin. If you see asparagus in the produce aisle outside of the state’s growing season, it likely does not hail from here.

Another option: buy asparagus directly from growers at farmer’s markets.

“Nothing tastes quite like it,” says Linda Burner Augustine (’83 Home Econ., Honors). “It has a gentle, kind of nutty, green flavor.” And its “substantial but tender” texture stands up to pasta or grains such as quinoa or farro. “It’s really nice in a bowl.”

Augustine collaborated with Jamie Callison, executive chef at the WSU School of Hospitality Business Management at Carson College, on The Crimson Spoon. The 2013 cookbook from Carson College carries a recipe for roasted asparagus. “It cooks quickly,” Augustine says, noting asparagus is “easy to work with, especially if all of the spears are the same diameter, and there’s very little waste. It’s just really friendly to the cook in the kitchen. It truly is one of my favorite vegetables.”

Her Auntie Asparagus Chicken Skillet is a popular recipe on her A Year at the Table blog. But one of her favorite preparations of asparagus—low in calories and high in iron, fiber, and vitamins A and C—is roasting it with lemon zest, olive oil, salt, and pepper, then serving it with grated Pecorino Romano or Parmigiano-Reggiano cheese.

Asparagus reminds Augustine of spring, of course, and elegance. “It’s one of those vegetables,” she says, “that makes everything on the plate look a little more beautiful.”
From the air, Grand Prismatic Spring resembles an enormous multicolored eye. Set in Yellowstone’s volcanic caldera, the hot spring gazes up with a brilliant blue “pupil” surrounded by vivid rings of turquoise, green, yellow, orange, and rust.

Third largest in the world, Grand Prismatic is heated by an underground magma chamber that boosts the blue part of the pool to around 200 degrees Fahrenheit. As the water spreads out and cools, it creates distinct layers that support specific types and colors of heat-loving bacteria.

Not only do the bacteria tolerate extremely high temperatures, they also endure dangerously low pH levels. In essence, Grand Prismatic Spring is a beautiful vat of boiling acid.

The spring is just one of Yellowstone National Park’s 10,000 hydrothermal features that range from mud pots and geysers to fumaroles and travertine terraces like Mammoth Hot Springs. Their eruptions and bubbles indicate that the rare hotspot volcano is very much alive, a fact confirmed by constant seismic activity.
WASHINGTON STATE UNIVERSITY GEOLOGY PROFESSOR PETER LARSON has spent 16 years investigating Yellowstone’s hot springs as well as the nearby rock formations that were altered by these complex waters.

“The rocks are discolored reddish and white at the Lower Falls of Yellowstone River, where it plunges into the Grand Canyon of the Yellowstone,” says Larson. “I tried to get approval from the Park Service to do field work there in 2006, but they said it’s too difficult to recover people who fall or get injured. So, we were granted research permits to work downstream at Seven Mile Hole.”

Larson says when hot springs flow through subsurface rocks, they react with them chemically, leaving tell-tale alterations. Studying these alterations provides clues to prior activity of the hydrothermal fluids at Yellowstone—including hints as to when the massive supervolcano might once again erupt.

“The last violent eruption was 640,000 years ago,” says Larson. “A thousand cubic kilometers of ash fell over much of the US, to east of the Mississippi River. It was the third in a cyclic series of eruptions at Yellowstone.

There was a big one 2.1 million years ago that produced the Huckleberry Ridge Tuff and another about 800,000 years later with the Mesa Falls Tuff,” he says. The most recent eruption occurred 640,000 years after that, and it’s now been 640,000 years since that event. Past behavior isn’t always a true prediction of the next eruption but we’re somewhere in that window of when you might expect another big one.

“It’s not going to happen anytime soon,” he cautions. “But it would be nice to have an idea and that’s part of the motivation for our research.”

Larson says the Yellowstone caldera is a hotspot volcano that formed from an errant plume of magma rising through the Earth’s mantle. The magma melts rocks in the crust, creating the shallow hydrothermal features.

Unlike Mount St. Helens in the Cascades, hotspot volcanoes do not occur along the edges of tectonic plates. Instead, the tectonic plate moves over the hotspot, creating a chain of volcanoes, which in time become dormant as they move off the plume.

Yellowstone is the continental equivalent of Hawaii as a volcanic system,” says Larson.

Since 2007, Larson has organized rustic research trips into Yellowstone for many of his graduate students. Though recently retired, he maintains a lab in support of his last doctoral student, Jarred Zimmerman, who is investigating altered rocks in the Grand Canyon area of the park.

Larson’s work is important because when basalt magma works its way into the crust beneath the caldera, it creates a rock called rhyolite that causes catastrophic eruptions,” says Larson. “We can estimate the amount of basalt being input into the crust by looking at how active the hydrothermal system has been. The altered rocks give an indication of that.”

Sampling those altered rocks, however, is dangerous and challenging.

“You have to hike three miles into Seven Mile Hole and then it drops 1,000 vertical feet into the canyon,” says Zimmerman. “I carry a big backpack with three liters of water plus rock hammers, bags, a shovel, and GPS.” And he never goes alone.

Zimmerman says that over time, changes in hot water levels created a highly acidic environment that “chewed on the rocks and made them crunchy,” which helps with identification.

“We are looking for signs of volcanic cyclicity in the rocks,” Larson adds. “Has the rate of basalt recharging into the crust been constant or varied over the years? We’re in a period right now where there’s a lot of basalt coming in.”

That finding aligns with Larson’s earlier studies on hot water discharge in the Morning Mist Springs in Yellowstone’s Lernert Geyser Basin. Larson says it’s another way to measure the activity of the magma.

In 2014, he and University of Idaho (UI) geologist Jerry Fairley set out to determine how much water and heat were coursing through the hot springs.

“Basalt is coming up from the mantle into the lower crust,” says Larson. “The heat goes in the bottom and comes out at the top. We wondered if we could estimate how much magma is coming in by doing a thermal balance.

To avoid harming sensitive bacteria living around the hot spring edges, the pair spiked the springs with deuterium, or heavy water, a safe compound that quickly dilutes to background levels.

Water samples taken throughout the day revealed, surprisingly, that the amount of magma entering the crust is likely much higher than previously thought. At the minimum, Larson estimates it as half the amount that is coming up under Kilauea volcano in Hawaii.

Their technique not only provides a new way to calculate how fast molten rock is recharging the Yellowstone caldera but also gives insights into the potential for future eruptions. The study gives insights into the potential for future eruptions.
A DEEP BURNING

Mist rises from the Yellowstone River. Photo Peter Larson

According to retired San Diego State University geologist Victor Camp ('76 PhD Geol), the Yellowstone hotspot can be traced back even further to the Pacific Ocean off the coast of Washington. Camp speculates that prior to 50 million years ago, the hotspot was part of the Siletzia oceanic plateau which later crashed into the North American continent during the Cenozoic. Evidence of the event is visible in exposed fragments of Siletzia rock on Vancouver Island, the Olympic Peninsula, and the Coast Ranges of Oregon and Washington.

From there, Wolff says, the hotspot slowly moved east eventually flooding the Pacific Northwest with layers of basalt. Then, about 14 million years ago, along the southern Idaho-Oregon border, something strange occurred. The hotspot’s fissure vent eruptions abruptly gave way to caldera volcanoes capable of producing super-eruptions.

“The calderas progressively formed a chain all the way through southern Idaho leading up to the present-day location at Yellowstone,” Wolff says. “There were many calderas in the Snake River Plain 8–11 million years ago, and they produced huge eruptions of the Yellowstone type.”

Not only did the hotspot volcanoes change physical form, but their magma type changed as well. Gone were the placid basaltic flows. These calderas erupted extremely dangerous rhyolite, a type of rock that is formed when magma melts granite in the Earth’s crust.

A rhyolite eruption explodes with showers of molten glass that essentially enamels the entire landscape, killing every living thing on the surface. Ash particles also shoot into the stratosphere and gradually spread around the globe.

Wolff holds up a large chunk of shiny black rock. “The calderas erupted a kind of obsidian with crystals called vitrophyre,” he says. “It’s typically black glass which mostly crystallizes into gray rock soon after eruption.”

“We find examples of it in bluffs all over southern Idaho, in the mountains and in the Bruneau Hot Springs area. The Black Rock Escarpment is a spectacular exposure. You can see layers in the cliffs there and each layer was a different eruption.”

Wolff says that in the future, the Yellowstone hotspot will likely continue to travel in an east-northeast direction toward Montana. Though nobody knows for certain, it could potentially keep moving forever.

Tracking the hotspot

BEFORE IT BECAME A VOLCANIC WONDERLAND

In Wyoming, the Yellowstone hotspot spent millions of years “traveling” through Washington and Idaho. Ferried by plate tectonics, the North American continent has been gradually moving west over a plume of molten magma that periodically burns through the Earth’s crust, spewing lava onto the surface. As the continent moves off the plume, a trail of dormant basaltic floods and calderas is left behind.

That plume or hotspot once occupied the grounds of Washington State University Pullman, where evidence of volcanic flows can be seen in the rocky cliffs that border the southwest corner of campus.

“We’re sitting on some of the earliest history of the hotspot right here with the Columbia River basalts which underlie Pullman to the depth of 2,000 feet,” says WSU geology professor emeritus John Wolff.

“These lavas were erupted from gigantic fissure vents that extended down through southeast Washington and Oregon 16 million years ago. We know because we have vertical walls of rock called dikes that are exposed in this region.”

Wolff says the massive eruptions created a basaltic floodplain that stretches from Spokane south to the Oregon Nevada border—and from the Idaho panhandle west to the Pacific Ocean. Similar fissure vent eruptions have recently taken place on Hawaii’s Kilauea volcano.

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A rhyolite eruption explodes with showers of molten glass that essentially enamels the entire landscape, killing every living thing on the surface. Ash particles also shoot into the stratosphere and gradually spread around the globe.

Wolff holds up a large chunk of shiny black rock. “The calderas erupted a kind of obsidian with crystals called vitrophyre,” he says. “It’s typically black glass which mostly crystallizes into gray rock soon after eruption.”

“We find examples of it in bluffs all over southern Idaho, in the mountains and in the Bruneau Hot Springs area. The Black Rock Escarpment is a spectacular exposure. You can see layers in the cliffs there and each layer was a different eruption.”

Wolff says that in the future, the Yellowstone hotspot will likely continue to travel in an east-northeast direction toward Montana. Though nobody knows for certain, it could potentially keep moving forever.

Tracking the hotspot

BEFORE IT BECAME A VOLCANIC WONDERLAND

In Wyoming, the Yellowstone hotspot spent millions of years “traveling” through Washington and Idaho. Ferried by plate tectonics, the North American continent has been gradually moving west over a plume of molten magma that periodically burns through the Earth’s crust, spewing lava onto the surface. As the continent moves off the plume, a trail of dormant basaltic floods and calderas is left behind.

That plume or hotspot once occupied the grounds of Washington State University Pullman, where evidence of volcanic flows can be seen in the rocky cliffs that border the southwest corner of campus.

“We’re sitting on some of the earliest history of the hotspot right here with the Columbia River basalts which underlie Pullman to the depth of 2,000 feet,” says WSU geology professor emeritus John Wolff.

“These lavas were erupted from gigantic fissure vents that extended down through southeast Washington and Oregon 16 million years ago. We know because we have vertical walls of rock called dikes that are exposed in this region.”

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James Donaldson stands tall, projecting the pride and power of a former collegiate and professional athlete. The former Washington State University basketball and NBA player towers above most everyone, even other NBA players. Their average height: not quite 6 feet, 5 inches. He’s 7 feet 2 inches.

People look up to him in more ways than one. That’s what his first book is about. *Standing above the Crowd* explains his strategies for success in athletics, business, and more. A few years after its 2011 publication, though, a series of stressful events changed his outlook. “I looked OK. I seemed like I was fine. But,” Donaldson says, “I wasn’t my normal self anymore.”

Donaldson (‘79 Socio.) had nearly died, enduring four major surgeries in five years. His business began faltering. He owed back taxes. Money was running out. His wife left, taking his stepson with her. His mom died. Holiday season hit.

“The walls were closing in on me,” Donaldson says. “The loneliness was kicking in. And I just could not sleep. My mind was racing 100 miles an hour, trying to figure out how to save my business and how to exit this world. Those were my two all-consuming thoughts, especially at night. I really did not think I was going to make it. Life wasn’t worth living anymore. It was all dark and hopeless.”

Donaldson details his struggle in his latest book. Written during the COVID-19 pandemic lockdown and published at the end of 2020, *Celebrating Your Gift of Life: From the Verge of Suicide to a Life of Purpose and Joy* aims to conquer the stigma of men, especially male athletes and men of color, showing perceived weakness by talking about mental health and asking for help. “Most men just won’t go there,” Donaldson says. “I want them to see that I’m a big man, a strong, athletic guy, and I’ve gone through the same stuff and made it through.”
Donaldson played basketball under former Coug coach George Raveling. A year after graduation, Sonics coach Lenny Wilkens gave him his first pro gig, launching a 16-year NBA career that included All-Star status. Donaldson, coinducted into the Pac-12 Hall of Honor and WSU's Athletic Hall of Fame, also played for several European teams and两者 with the Harlem Globetrotters before retiring from basketball.

I still went to the gym every day. I was still eating right. I've been a vegetarian for 35 years. I don't smoke. I don't drink. I never did drugs,” says Donaldson, who suffered from aortic dissection at 57 in 2015. “It came out of nowhere. I had no risk factors. I had no kind of heart issues.” Things snowballed throughout the next three years. The period from Thanksgiving to Christmas 2017 was Donaldson's darkest. At first, “I thought I had a sleeping disorder,” says Donaldson, who made an appointment to see his doctor. After months of spiraling downward, “he quickly diagnosed me with having depression and anxiety and suicidal ideation.”

Donaldson started seeing a counselor, taking anti-anxiety medication, and reaching out. He contacted a small group of “go-to guys” — including Coach Raveling, Coach Wilkens, and former WSU quarterback back "Throwin' Samoan” Thompson (’78 Bus.) — asking if he could call or text at one or two in the morning if he needed to talk.” Men, especially athletes, are not used to drawing up a game plan and getting to a goal. I needed someone or something driving me toward what I needed to get done,” Donaldson felt compelled to start sharing his struggle after the Janua, 2018 death by suicide of a fellow Coug, WSU junior quarterback Teilelin Hinkin. “I didn’t know him, but his death shook me to the core,” Donaldson says. “I think the reason it resonated with me so much was because we were both Cougar athletes. His death motivated me to fight back and make mental health my new advocacy.”

Donaldson had lost his home and his business. Donaldson Clinic, a physical therapy practice. “I was no longer a husband. I was no longer a businessman. I was no longer a homeowner,” he says. “It wasn’t until I started regaining purpose that I started getting back on solid ground.”

In 2019, he established Your Gift of Life, a nonprofit foundation for mental health awareness. Before the pandemic, he visited schools, sharing his experience and message with students. Today, he is a digital platform used as well as a source for raising money for scholarships for people of color studying to go into mental health professions. “It’s become our next chapter.”

History in the (wine)making

Samantha Hege ('12 Neurosci., '16 Psych.) and Colton Smith ('16 Integ. Plant Sci.) are breathing new life into a historical vineyard on Washington’s southern border.

The couple learned about the Dallesport property from a family friend. Right away, Hege noticed the thickness of the trunks and the strength of the vines. “Those are old vines, and not the kind of plants you usually see in an area dominated by pears, cherries, and apples,” she says. “To see vines that were five decades old was a fun surprise.” So was discovering the vineyard’s ties to their alma mater.

Hege and Smith learned former owner Don Graves planted a test plot in the late 1950s with the help of “Father of Washington Wine” Walter Clore. Clore was a horticulturist at what’s now Washington State University’s Irrigated Agriculture Research and Extension Center in Prosser. He is credited with discovering Washington’s propensity for grape growing.

Once Graves’s test plot began producing, WSU research winemaker George Carter made wine from the grapes. In the 1960s, after seeing success, Graves planted a full 16-acre vineyard. Grenache, syrah, cabernet sauvignon, and riesling vines still stand on the property, which lies within a mile of the Columbia River.

“Our goal is to get the vineyard to the right age and start making wine,” says Hege, who first met Smith at The Coug while she was a WSU admissions counselor and he was an undergraduate student.

During lunch, the men at the next table — including Smith — invited her and a colleague for a drink. After that, she started seeing him everywhere on campus. Eventually he asked her out, bringing along a bottle of Napa Valley cabernet to their first date.

“I didn’t know wine could taste like that,” says Hege, noting it made her realize the wine world was much bigger than she had experienced.

Growing up in the agricultural community of The Dalles, she had worked cherry harvests. After his aunt and uncle bought a vineyard in Pasco Robles, Smith, who grew up in Southern California, helped amid the vines, often following behind the harvest crew to pick what was left.

“After a few years, I realized, this is a pretty great lifecycle,” he says. “I’m outside in nature, the sun is shining, I’m listening to music, and the grapes we’re picking we’ll soon be drinking.”

Hege soon came to her own realization: working in the wine industry is the perfect collision of things she enjoys. “There’s the scientific technical aspect, the agrarian lifestyle, and the connection to the land,” says Hege, who transitioned to wine sales and marketing.

Soon, the couple followed grape harvests in Mendoza, Argentina, and Margaret River, Australia, returning to Napa Valley in between. Long days in the vineyard and at the winery meant they didn’t often see each other. He worked nights, and she worked days — at different establishments. But the overseas work “was really informative for us,” Hege says. “There are different challenges when it comes to weather, plant diseases, and pests.”

She later served as head of hospitality at Napa Valley’s Meadowood Estate while Smith worked in production and winemaking at nearby Colgin Cellars. Now, they are working with WSU’s Klickitat County Extension to learn local vineyard best practices and how to incorporate the latest viticulture and enology research into their farming regimen. They have partnered with an investor and put together a plan to revive Graves Vineyard and start winemaking on the estate.

“We are proud of Couper for accepting the wonderful challenge of rejuvenating a part of our history associated with Walter Clore and the Washington wine industry,” says food scientist Charles Gould Edwards, one of Smith’s favorite professors in WSU’s viticulture and enology program.

Jim Harbou (’59 Hotel & Rest. Admin.), scholarly associate professor in the School of Hospitality Business Management at Carson College, calls Smith and Hege “really hard workers” who both “thrive under pressure and appreciate the intensity.” I look forward to having an excuse to go taste wine in the Columbia Gorge.”

Smith and Hege plan to expand grape-producing acreage, build a winery, and eventually buy the property.

“It’s a five-year plan and, when we purchase the property, our sweat equity will be included,” says Smith, who — along with Hege — started making regular weekend visits to their alma mater to ask if they could help with renovations beginning in November 2020. In June 2021, the couple moved to the property to work on the vineyard full-time.

“We are both committed to organic, regenerative farming practices that will allow mother nature to speak clearly as the greatest force on this unique property,” says Hege. “We want to use microbially demonstrated methods and knowledge, we use natural, organic methods to wean our great memories,” says Smith, who adds: “I always be on campus for half of the day. They’ll be in community colleges, labs, job sites, and technical training courses. ‘Father of Washington Wine’ had core instruction in ninth and tenth grades, students could meet learning standards for math, science, English, and social studies with a variety of different experiences.

Looking ahead 10 years, Washington’s superintendent of public instruction would like students to use their 2,000 hours of learning in the last two years of high school to “explore what they’re interested in.” He’d like all high schoolers to have “a high school and beyond plan” dystaied with the current job market.

Lines between high schools and technical and community colleges should be blurred, he says, so younger students could earn more cross credits and get into programs now reserved for those older than 18. Students should also be able to earn high school credit for work experience and apprenticeships, he says.

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grown up in Tacoma, Jamerika Haynes-Lewis was enamored with Pierce County's Daffodil Parade—and particularly its royalty court. She wanted to be a princess.

"I would see the Daffodil princesses wading from their float, and I always wanted to do that," she says.

But a foster kid who moved around a lot, "being able to do certain things was hard. After-school activities were one of them." Haynes-Lewis ’10 Comm’ spent 13 years in the child-welfare system and never competed for a place on the Daffodil court—or in any other pageant—during that time. Now, as the reigning USA Ambassador Ms. 2021, she’s advocating for a more supportive system for foster children and their families. Her platform: “A Chance to Succeed: Empowering Youth in Foster Care.”

She says, “I want foster youth to know that they’re not their circumstances. With the right support, they can go on to live productive, happy, fulfilling lives. And they are worthy of that.”

Haynes-Lewis won the title last July 31, her birthday, in Tampa, Florida. Since then, she’s been sharing her story, making appearances in-person and virtually, and volunteering for her cause.

“We have to give our young people a chance,” she says. “We can’t assume anything or take anything for granted.”

Haynes-Lewis grew up in a variety of living situations—from group homes and kinship care to foster homes where she was the only child or one of five foster children. “It was hard,” she says. “You’re away from your family. You don’t quite understand what is happening. And you’re dealing with other people and their expectations.”

When she told one foster mom she wanted to be an actress, Haynes-Lewis was encouraged. Instead of acting, she got into education, but she did not start competing in pageants until she was a 10-year-old student at Tacoma Community College, where she saw a flyer advertising the Miss Pierce County Scholarship Program. She participated two years but didn’t place. And when she transferred to Washington State University her junior year, she says, “I had a lot on my plate.” Pageants took the backburner.

“The Miss America Organization, they go out at 25,” says Haynes-Lewis, now 35 and living in Seattle. “I just thought my chances were over.”

At WSU, she worked at Cable 8 as a reporter as well as in the station’s production and programming. She also worked at KUGR radio and for dining services and completed a journalism internship in Lewiston. She was involved with the Black Student Union. And she was highly motivated.

“When I found out my mother’s rights were terminated I felt completely on my own five years ago, in honor of her thirtieth birthday, she posted a life-changing selfie on Facebook. A woman who had seen the photos messaged her privately about pageants, encouraging her to participate. After a ten-year break, Haynes-Lewis went to one to support a friend and got swept up in the thrill of it all.

"There was this feeling of nostalgia, seeing all the make-up and the dressing room lights. I realized I really missed competing," says Haynes-Lewis, who decided to enter the USA Ambassador Ms.

She competed three times and was first runner-up twice. "This third time, I said, ‘I’m going to win.’ I did mock interviews every week for two years straight,” she says. "The monkey wrench was the pandemic. We have to give our young people a chance."
COURTESY DAVID THIRTYACRE

**Newmedia**

**DAVID ARNOLD ’88 HISTORY**

WSU PRESS: 2021

It started with Rich Stager (’74 Civ. Eng.), a freshman who made up flyers and posted them around campus. A scrawny group of six, at that point, non-owners started turning out Saturday mornings to help build a shell-house—only to have it destroyed in a savage windsprint a year later. Back then, Cougar Crew had no coach, no money, and no boats. Despite its humble beginnings, including help from the rowing program at the University of Washington, Cougar Crew grew into one of Washington State University’s most successful clubsports and its only varsity club sport.

Former WSU swimmer David Arnold, now a history professor at Columbia Basin College, went on archival to write this detailed history of the first 50 years of Cougar Crew. His well-researched account discusses the program’s hardy-craft, struggle for equipment and funding, andpressive perseverance. Overcoming challenges and working hard together helped the “Boys in the Boat in the Whirlpool Fields” become a tight-knit, committed team, one that produced national champions as well as a couple of rowers who went on to win Olympic gold.

Those Olympians, along with former coaches and teammates and women, recall the camaraderie, grit, white caps, key races, and other highlights that built the program into what it is today. Drawing from more than 90 personal interviews with alumni, The Era of the Crew: Ponytail and the Pull Hard newsletter, and more, including reporting from this magazine, Arnold offers a comprehensive look at the formative years and continued growth of Cougar Crew—from the long-running reign of Coach Ken Struckmeier, the 1975 Pac-10 Coach of the Year, to the birth of women’s rowing at WSU and the recent era known as “The Reawakening.” Pull Hard! is a must-read for past, current, and future members of Cougar Crew, its coaches, parents of WSU rowers, and fans of Pacific Northwest rowing.

—Adriana Janovich

### Athena’s Piano

**ALLEN JOHNSON ’85 PHD**

BOURGEOIS PUBLISHING GROUP: 2021

He’s older. She’s younger. He’s White. She’s Black. They come from different New York City neighborhoods—and different eras. Set in both 1924 and 2018, this time-traveling romantic thriller tells the incredible story of Tony Marco, who becomes enchanted with a piano and the ghost of its former owner, the sultry jazz pianist and vocalist Athena Cruz. He travels back in time, into her world, and into her heart.

Inspired by the jazz scene of the Harlem Renaissance, Athena’s Piano features a cast of real-life characters with cameo appearances: Billie Holiday as a young girl, poet and composer Fletcher Henderson. Aspiring pilots can learn things in the story.

—Adriana Janovich

### Echoes of Exclusion and Resistance: Voices from the Hanford Region

**ROBERT BAUMAN AND ROBERT FRANKLIN (’14 MA HISTORY)**

WSU PRESS: 2020

He called Kennenwick “The Birmingham of Washington”—and on a hot day in May 1963, Jack Tanner led a large group of Black residents, many of whom worked at Hanford, in protesting the town’s cruel exclusion of non-White minorities.

Despite the risk, they marched the streets with signs reading, “Why is Kennenwick all White?” “Jim Crow is Dead, Bury Him in Kennenwick.” “I Can Scrub Your Floor But Not Live Next Door,” “Kennenwick Racism Must Go,” and “Where are the Dogs?”

She’s a 28-year-old jazz pianist and vocalist. And, after repeatedly declining Crevane’s advances, her life is in danger. When a hand-some visitor from the future falls into her life, they bond over their shared love of Charles Dickens, he writes a song for her which she performs in “a feathery baritone,” and the plot thickens.

This fast-paced, adventurous romance features issues of race and gender, corruption, heart-quickening chases, a Russian assassin, and a love that transcends time and space. Author Allen Johnson, a psychologist, jazz vocalist and instrumentalist, and avid cyclist who lives in the Tri-Cities, is a former guest columnist for the Tri-City Herald, wraps it all up tightly and conveniently.

—Adriana Janovich

### The Wing is the Thing!football

**ROBERT G. CLARKE (’60 HISTORY)**

COLLEGE HILL: 2021

It’s Saturday, and little Butch T. Cougar couldn’t be more excited. His beloved Cougs are playing. It’s time to don crimson and gray, and head up Stadium Way. This charming children’s picture book follows young Butch and papas Butch to campus, with stops at The Coug, Ferdinand’s, and more. Tony Poston, founder and former CEO of branded merchandise company College Hill, is inspired to pen the story after the birth of his son, Jack. Proceeds will help fund scholarships for students who portray the WSU mascot.

—Adriana Janovich

### BRIEFLY NOTED

From Inez to Andrew

**ANDREW WHIPPLE (’99 ED.)**

2021

After retired US Army officer Andrew Whipple heard about a tragic Black hawk helicopter accident, he was inspired to write a poem memorializing the pilots. He started writing more poetry when he was given a book of poems by his grandmother Inez. She had written about World War II, and the sacrifices in battle and on the homefront. Whipple’s book combines Inez’s poetry with his own. He also writes about his struggles with PTSD and sees writing as a way to help fellow veterans and soldiers.

“The Wing is the Thing!”

**ROBERT G. CLARE ( ’00 HISTORY)**

2021

Aspiring pilots can learn more than a few things from the ten stories by longtime flight instructor and pilot Robert Clarke. He taught pilots how to fly safely for over four decades, including 5,000 flight tests. The book addresses practical applied aerodynamics and many aspects of flight.
DAN BRODELL (’60 Ag.) has announced high school sports for 60 years, including 23 state tournaments and 11 state track meets. He started in 1962 at Endicott High School, where he announced basketball and football games, wrestling matches, track and field meets, and more. He spent the last 50 years announcing sports for Deer Park High School. Brodeell also announced WSU track and field events from 1996 to 2001.

KAREN MOLENAAR TERRELL (’78 Ed.) wrote two books in 2021: Cosmic Connections: Sharing the Joy and Scrapbook of a Year and a Day: January 19, 2020 to January 20, 2021. The books detail small moments of connection that create friendships and her life during the COVID-19 pandemic, respectively. Terrell is also the author of two books detailing her adventures with her centenarian father, the late mountaineer Dee Molenaar.

SHERYL MCGINNIS (’81 Home Econ., Teach. Cert.) retired as superintendent of Geraldine Public Schools in Montana after more than three decades in education. McGinnis taught in the clothing and textiles department at WSU while working on her master’s degree. She received advanced degrees in curriculum and instruction and education leadership after moving to Montana. She taught family and consumer science and middle school math in Fort Benton before becoming vice principal of the combined middle and high school there. Lloyd Walker (’81 Ag. Ed.) was awarded an honorary FFA degree after 39 years of teaching agriculture at Winlock High School. Walker retired in 2020 but continues to volunteer with FFA, coordinating career development events and advising students. He first joined FFA, formerly known as Future Farmers of America, as a high school student in the 1970s. Out of the 116 people who received the 2021 national award for exceptional service, he is the only one from Washington.

MIKE CONNELL (’85 Busi.) is vice president for advancement and CEO of the WSU Foundation. He started his career as a development coordinator for WSU Spokane and has 33 years of experience in a range of advancement positions at WSU.

RYAN CRIPKE (’99 Busi. Admin.) is chief financial officer for Sea & Shoreline, a Florida-based aquatic restoration firm.

CHRISTINA TORRES GARCIA (’03 MBA, ’09 PhD Ed.) is the director of the Latin American Studies program and assistant professor in the World Languages and Cultures Department at Central Washington University.

KATY BELDRONNY (’05 Comm.) is a member of the board of directors at Couger VIII. Uncork your smile. alumni.wsu.edu/CougarVIII

WASHINGTON STATE MAGAZINE SPRING 2022
Grade-schoolers doing online learning during the first year of the persisting COVID-19 pandemic got a boost from a Bernese mountain dog.

Frenzy, then a puppy, helped engage young students in the virtual classroom through YouTube. Where Frenzy's owner posted 35 videos from October 2020 to June 2021, STACY SLADE (’00 Bus., Mktg.) owns, trains, and breeds Bernese mountain dogs. She was already running the SitStay with Stacy YouTube channel when her longtime friend, Seattle teacher Christine Lackie, approached her with the idea of a virtual class pet.

"Students were so engaged—laughing and watching intently as Stacy answered questions, taught the ins and outs of pet ownership, and shared all the new things Frenzy was learning," Lackie says. "What was really powerful is how Stacy connected the way Frenzy was learning to the new things they were learning, and that learning takes time, love, positive reinforcement, and lots of practice. It's amazing that something as simple as a class pet—and a virtual one at that—can give students such a deep connection to their own journey as learners."

Students in three classes at Cedar Park Elementary School, came up with the idea in fall 2020—after teaching remotely—when her long-time friend, Seattle teacher Christine Lackie, approached her with the idea of a virtual class pet. "It was a special project that involved many people and brought so many together in a fun way during a very trying and hard time in our lives," says Slade, noting Frenzy got to meet many students in person during an outdoor event in a park last September.

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Students in three classes at Cedar Park— and many others around the country—tracked Frenzy's growth, watched new tricks, and learned about the pup's time spent playing with sibling Hazy and other canine friends. Students also sent in questions that Slade answered the following week. And, once a month, students participated in live, online demonstrations with Slade and Frenzy. "It was a special project that involved many people and brought so many together in a fun way during a very trying and hard time in our lives," says Slade, noting Frenzy got to meet many students in person during an outdoor event in a park last September.

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IN MEMORIAM


C. RAVEN (39; Home Econ.), 100, December 23, 2017. Seattle.
Every spring, the Cougar family comes together to recognize generosity, celebrate our successes, and give to the areas that mean the most to us.

HOW WILL YOU MAKE A DIFFERENCE FOR WSU?

Mighty tiny

The lightest crawling robot ever developed weighs about as much as three grains of rice and earned its spot in the next Guinness Book of World Records.

Néstor O. Pérez-Arancibia at Washington State University was inspired by nature when he built Robeetle. The tiny machine is uniquely powered by the catalytic combustion of methanol and can climb slopes, navigate various surfaces, and haul objects up to 2.6 times its own weight. Robeetle weighs a mere 88 milligrams and was featured on the cover of Science Robotics.

Pérez-Arancibia, Fishery Associate Professor in Engineering in the School of Mechanical and Materials Engineering, hopes his robots can someday be used to solve tricky engineering problems by emulating talented creatures like squid or mice that can seamlessly squeeze themselves like liquid into tight spaces. Biological organisms, particularly insects, still surpass their robotic counterparts in almost every aspect, but he hopes to develop robots in the next decade that are significantly better at mimicking natural systems.

He’s also excited to bring on new students to his program who like to tinker and have a good imagination.

“I hope they come knock on my door,” he says.

COURTESY SCIENCE ROBOTICS