Features
Understanding the capricious changes to our planet’s winds keeps our atmospheric researchers’ heads in the clouds. 24

Opening the doors of Western-style medical practice to the medicine of the ancients for better healthcare for all. 29

Upfront
Relationships come to life by revitalizing rather than preserving language. 10

Your WSU Winter Memories were, indeed, quite memorable. 11

It was a pretty cool connection, coincidentally. 12

In Burundi, it was one of those magical moments that connected us all. 13

Not always visible from the outside, it’s what’s inside that stands up. 14

Where does science take you?

Cover: Wild Horse Renewable Energy Center, Kittitas County. (Courtesy Puget Sound Energy. Left: Wild Horse Wind Farm across the Columbia River from Frenchman Coulee (photo: Jim Myers).
WASHINGTON STATE HAS A SHORTAGE OF DOCTORS IN RURAL COUNTIES.

In a game-changing move, Premera Blue Cross is turning Cougs into doctors with a $5.5 million grant to Washington State University’s Elson S. Floyd College of Medicine. The money will pay for new graduate medical education programs in rural areas of Eastern Washington.

These programs will help Washington keep students who are passionate about serving rural communities right here where they’re needed most.
After you turn 70½, you’re required to withdraw from your IRA annually. Transferring those funds directly to the WSU Foundation reduces what you would pay in income tax while supporting civic-minded students like Andrea Castillo.

“Instead of focusing on how I’m going to pay for textbooks and fees,” she said, “your support lets me focus on what I love—being involved on campus and helping other students at WSU Vancouver succeed.”

Learn more about how you can support students through planned gifts: foundation.wsu.edu/ira

WASHINGTON STATE UNIVERSITY FOUNDATION
I got a chuckle when I read the story of the Tukey Orchard. When I was a sophomore at WSU a good friend snuck into the orchard and stole enough apples for me to make an apple pie. It was delicious! As thanks for the pie he went bird hunting and brought home a chukar, which he roasted for dinner. Only problem was that he hadn’t removed all the birdshot… So many great memories of my years at WAZZU!

EILEEN GLAHOLT ’65 HISTORY Kaneohe, Hawaii

Donations to WSU athletics are up, but... large competitive gap remains

ESPN’s College GameDay in Pullman last season was a national advertisement showcasing Washington State University and one of the most loyal and passionate fan bases in the country.

When our football team competes on a national stage and basketball earns a trip to March Madness, applications for enrollment spike, it raises the profile for the entire University, and increased donations follow.

For these very reasons it is now time for WSU alumni and friends to step up their financial support for WSU athletics so we can compete on a consistent basis.

Some very good news

• WSU Athletics raised $15.1 million in the fiscal year ending June 30. This is the second-highest yearly total in history.

• Of that total, the Cougar Athletic Fund (CAF)—which supports student-athlete scholarships—accounted for a record $8.6 million. This is an increase of $900,000 from the prior year and a $2.15 million increase from 2017!

• 1,516 new donors joined the CAF in FY19. Historical evidence shows that new donors increase their giving over time which bodes well for the future.

As Cougar fans we have a lot of work to do.

WSU ranks 12th in the Pac-12 in donations to athletics. To put this into perspective, Oregon State ranks 11th and raised $10.8 million more than WSU in the last fiscal year. Further, Oregon State had a much larger number of major donors ($25,000 or more) than did WSU.

I challenge existing donors to step it up and new donors to join the CAF.

The record $8.6 million to the CAF is a good start, but that number should be much higher given the size and wealth of our alumni base, the strong economy in the state of Washington, and the passion of our fan base.

Let's do this!

Now is the time to take WSU athletics to the next level so please start now.

To increase your donation, join the CAF, or contribute to the IPF, please contact Adam Ganders, Cougar Athletic Fund, at 509-335-0218 or aganders@wsu.edu.

There is no doubt in my mind we will get to our rightful place in the Pac-12.

Go Cougs!

GLENN OSTERHOUT ’82 BUS.

Glenn Osterhout is on the Board of Directors of the WSU Foundation, chairman and co-founder of CougsFirst!, and a periodic columnist for Cougfan.com.

PASSION MEETS NOT-FOR-PROFIT

BECU is proud to partner with WSU on initiatives that help, inspire, and give back to the community.

Federally insured by NCUA

Wanda B, BECU Member owner
An advocate for all students

Fourth-year pharmacy student Johanna Pantig has taken classes—and been a leader and volunteer—on three WSU campuses. Now, as the University’s newly appointed Student Regent, she’s a voice for all students.

“You can get an education at any college, but the experiences and connections WSU has to offer are what made the difference for me. Once a Coug, always a Coug.”

wsu.edu

The notable achievement is also based on the Round-Up’s generous community spirit and focus on animal and human welfare.

Throughout the week, certain days are dedicated to charitable causes. For the last three years, opening day at the Round-Up has been christened Farmers Ending Hunger Day to help promote awareness of food insecurity in Oregon.

Farmers Ending Hunger is a nonprofit organization founded in 2006 by Oregon entrepreneur and former Washington State University faculty researcher Fred Ziari. Ziari also happened to be friends with Casey Beard (’71 Poli. Sci.), who served with General Norman Schwarzkopf during Operation Desert Storm. Beard was hired as the Round-Up’s first general manager in 2014, a time of rapid growth, upgrades, and increased commitment to the community.

“We were looking for ways to contribute and Farmers Ending Hunger was a good organization,” Beard says. “I approached the boards and they agreed to make it an official charity.”

The nonprofit aims to increase the amount of high-quality food available for local communities through a partnership of farmers, food producers, the Oregon Food Bank, and the public. Members farms regularly donate grain, livestock, or fresh and frozen produce. Others give food or ship in cash to “adopt” acres of dedicated farmland.

A $250 donation to the Adopt-an-Acre program, for example, will provide a serving of pancakes for 2,300 families of four. So far, the Pendleton Round-Up has adopted twenty acres of farmland to help fight hunger.

“It’s been a great partnership,” says Beard, who retired in 2019. “Farmers and ranchers who donate food do this out of a tradition of stewardship of the land and community and of course, that’s a WSU virtue. They aren’t doing it for the publicity. They do it because it’s the right thing to do.”

Ziari, whose family farmed in northern Iran for over a thousand years, says he became aware in 2006 that Oregon was number one in hunger in the United States and had been in that position for decades.
It came as a big surprise to me that we live in one of the richest agricultural areas in the world and have 300,000 citizens in Oregon who have to use food banks just to eat, and 30 percent are children," he says.

"The problem with hunger is it’s hidden. No one associates Oregon with hunger and Washington is not that far behind."

According to the Oregon Food Bank, 14.6 percent of state citizens lack access to a regular monthly basis. Seventy percent of donations come from local stores, and 25 percent are from individuals. Seventy percent of donations come from 10 percent of people, while 25 percent are from individuals.

"The problem with hunger is it’s hidden. No one associates Oregon with hunger and Washington is not that far behind."

No one associates Oregon with hunger and Washington is not that far behind. "Once I learned about that, I started meeting with farmer friends in the Hermiston area and asked if they knew this," says Ziari. "Most said no. Then, I asked if they’d be willing to do their part, the sky’s the limit. Just like the rural and urban are coming together and taking care of each other. If everybody does their part, the sky’s the limit. Just like how Cougs take care of other Cougs."

**Power of language**

**BY BRIAN CHARLES CLARK**

Language, says Kim Christen, "is really about relationships. Languages bring to life relationships to other human beings, to dead ancestors, to ancestors that aren’t human, to landscape, to histories, stories—to knowledge."

Christen is a professor of English and the director of the Center for Digital Scholarship and Creativity at Washington State University. The center develops collaborative projects between scholars, students, and community members, with an emphasis on ethical curation. One of the projects is the Plateau Peoples’ Web Portal, a trove of Native American culture and a resource for teachers and community members working together to revitalize Indigenous languages and cultures. Christen prefers the term revitalization to preservation because, she says, preservation sounds "like you’re preserving a dead brain or something." The word also invokes a past in which the U.S. government sought to document and preserve Native languages while, “at the same time, they were sending out troops to kill Native people.”

That, says Christen, was “a perverse notion of preservation.”

NATIVE CHILDREN were forced into boarding schools that engaged in a brutal program of assimilation. Speaking a Native language was forbidden because “they carried religious knowledge, knowledge of kin,” knowledge deemed unacceptable to Western civilization.

Language revitalization is not as simple as signing up for a French class at the Y. You can’t really learn an indigenous language except through immersion. Christen says, because “words come from the landscape,” from the accumulated knowledge that results from living in one place for many millennia.

Christen and her colleagues work with Native teachers to create curriculums that “get the students out three or on the land so they learn not just the language but the knowledge that goes with it. Indigenous communities are asking, ‘How do we bring this language back so we’re empowered to think through issues of knowledge, of relationships with other cultures, and how we want to live with the environment?’"

Revitalization projects also ask Indigenous peoples to decide what they want to share. After centuries of cultural theft, in which Western researchers and others simply took what they wanted, Native peoples have long known that not every relationship should be shared.

Indeed, all cultures segment knowledge. Neurologists, Christen points out, are expected to have specialized knowledge. Similarly, she’s worked with tribal medicine societies in the American Southwest. There, she says, “it’s not that other people can’t know that knowledge, but that it is really strong and powerful. If you come to it without understanding the responsibilities that come with it, you might get sick. You’re not ready for that knowledge.”

Knowledge can be dangerous in another way, too, she says. The trauma of historical events, such as the experience of Indian boarding schools, can be trigged by something seemingly benign as a photograph of an old building.

“Most said no. Then, I asked if they’d be willing to donate a percentage of their farming production for hunger relief—purposely plant food that can be used to eliminate hunger. Virtually all of them said yes.”

The first farmer Ziari reached out to was Tyler Haskell (‘70 Ani. Sci.). Though Tyler has since passed on, all five of his children now actively support Farmers Ending Hunger. The three brothers, ‘49 History, Kenzie (‘94 Ag.), and Luke (‘99 Ag. Bus.) donate beef, wheat, and cash from their farms.

Kenzie is on the Farmers Ending Hunger board of directors and also manages publicity for the Happy Canyon Night Show.

“’When Fred first called dad about the idea, he didn’t hesitate,” says Kenzie. “’Dad said, ‘If you need shoes, you go to a shoe store, and if you need food, you go to a farmer.’”’

To date, Farmers Ending Hunger has donated over 25 million pounds of produce to the Oregon Food Bank, based in Portland, which distributes it through a network of regional food banks in both Oregon and southwest Washington, says Ziari.

Seventy percent of donations come from Umatilla County within 75 miles of Pendleton.

“One farmer will give 20-25 cows each month that we turn into hamburger and distribute,” Ziari says. “Another farmer gives thirty tons of potatoes every month of the year and another gives 25 tons of onions. Other farmers give peas, beans, carrots, cherries, hazelnuts, watermelon, and it’s done on a regular monthly basis.”

Kenzie says Farmers Ending Hunger connects the state and makes Oregon a better place to live.

“The rural and urban are coming together and taking care of each other. If everybody does their part, the sky’s the limit. Just like how Cougs take care of other Cougs."

**For years,** Christen says, “the policy was digital first and a helath policy. But she and her team have a ‘purposeful workflow that respects Native knowledge and what should be shared.’ When a batch of old lantern slides depicting buildings at a boarding school in Oregon were discovered in the WSU library archives, Christen shared the images with Native elders. There was an outpouring of emotion as memories were relived. But, eventually, the Native collaborators decided to digitize the images, along with contextualizing material.

“So now, when you look at the intern the of this boarding school bakery, you also hear a Umatilla elder talking about what they were forced to eat. It’s this whole other way of educating and reanimating the place.”

And that, Christen says, is a way of finding a new path that consciously avoids recommitting the violence of the past. Especially at a land-grant university situated on Native land, we must acknowledge that history, take responsibility, and “chart a different path” by “bringing together Native community members with researchers and taking the time to ask, ‘How do we not do this today?’”

**Winter memories**

We asked for your winter memories of Washington State University in 100 words or less, and you delivered.

Arianna spanned decades and delighted us. With anecdotes about sliding down hills on lunch trays. With vignettes about watching out steam vents for warmth. With at least one story about shuffling flute—then a real, live cougar—by sticking late at night near his cage. It wasn’t easy to choose a winner. Here’s an excerpt from the one that spoke to us the most. Find the complete entry—as well as all of the submissions—online at magazine.wsu.edu/winter-memories.

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Just off campus, Bill and Velma Noteboom lived in an Airstream trailer, where we made “window-sill jelly-O” and blankets closer to the walls. The Notebooms’ car took us everywhere, including the WSC gym to hear Tom Greene. Out for a formal gown scooped up snow behind us.

We skated away our free time on the Inman practice field, and occasionally decked the golf course (when we could borrow the gear!).

Serious snow hit in late October and lasted until the March Chinook winds came.

My snow boots left indent on my legs from daily treks to Bohler Gym.

— Janet Hehm (‘48 Comm.)
helping out in the fields alongside his parents and environmental toxins.

vulnerable communities from the effects of wildfire smoke and helped develop mental engineering and a member of the National Science Foundation’s Research Training Program. The team identified culturally appropriate gardening practices and the tenets of PYD. The Burundian leaders translated the term “4-H” into “UUAA,” the Kirundi equivalent of “Head, Heart, Hands, and Health.” The Burundian team offered noncompetitive games that emphasize cooperation and communication. Play for Peace relies on seasonal rains, hand tools, and traditional seed stocks. Water catchment systems were installed at the school to supply water to the gardens outside the seasonal rains, which have become unpredictable in recent years. As a result, the Burundian leaders raised beds, managing soil fertility, mulching, and cleared and planted at each school. The students learned about sustainable gardening practices such as using raised beds, managing soil fertility, mulching, and new ideas home to their mothers, sister schools’ gardens.

Since 2013, Washington State University 4-H and Extension faculty, staff, and volunteers have been working with Burundian partners to develop a garden-based, 4-H Positive Youth Development (PYD) program at six elementary schools near Gitega in the small, east-central African country. The WSU group collaborates with the Burundian-based Trauma, Healing and Reconciliation Services (THARS), an organization dedicated to re-establishing peace and promoting reconciliation after a 13-year civil war that damaged the country’s agricultural, economic, and social structures.

The partnership emerged after Stacey Deen, assistant professor in Human Development, visited the THARS teaching center near Gitega in 2012. During the trip, she visited several local elementary schools and learned that the students had no access to food during the school day and many came to school hungry. Deen, who has worked with 4-H for decades, quickly realized that 4-H international programs could easily be applied to Burundi. She immediately found a willing partner with THARS.

Deen formed a team from Human Development, 4-H, and Extension to develop the program, while THARS recruited local support staff. The team identified culturally appropriate agricultural teaching resources for Central Africa, including an elementary school garden curriculum written in French, which was translated into Kirundi, Burundi’s indigenous language. Deen and King County Extension Director Kevin Wright returned to Burundi in 2013 to train the Burundian 4-H staff and educators. As a way of taking ownership of the program, the Burundian leaders translated the term “4-H” into “UUAA,” the Kirundi equivalent of “Head, Heart, Hands, and Health.” The Burundian team offered workshops for teachers, school administrators, and community leaders on sustainable agricultural techniques and the tenets of PYD.

In September 2015, garden spaces were cleared and planted at each school and became an instant hit with the students, teachers, and their communities. The students learned about sustainable gardening practices such as using raised beds, managing soil fertility, mulching, and natural pest control, and sustainable water management. Students took their extra produce and new ideas home to their mothers, the farmers in Burundi. Burundi follows a traditional African agricultural model that relies on seasonal rains, hand tools, and traditional seed stocks. Water catchment systems were installed at the school to supply water to the gardens outside the seasonal rains, which have become unpredictable in recent years. As a result, the Burundian leaders raised beds, managing soil fertility, mulching, and cleared and planted at each school. The students learned about sustainable gardening practices such as using raised beds, managing soil fertility, mulching, and new ideas home to their mothers, sister schools’ gardens.

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Sensing something wrong with bridges

It is not always visible from the outside, but major damage to bridges, tunnels, and roads has left U.S. infrastructure in critical condition.

In the last century, the legal expectations of bridges was about 50 to 70 years old at the maximum,” says Washington State University civil engineering professor Fuishong Qiao. “But right now, we are past or near the limit.”

Qiao and doctoral student Ayumi Manawadu are developing and testing sensors to assess the health of concrete with a focus on bridges, without relying on visual cues.

Transportation workers typically assess the condition of bridges through on-site observation, photographs taken from air, and occasionally consulting a set of printed cards or making a note in pencil. In Qiao’s lab, researchers are exploring two sensor systems for bridges. Active sensing sends a powered excitation signal to a piezoelectric actuator (A2) producing a mechanical stress wave that travels to a piezoelectric sensor (A2). This can measure material properties, cracks, and other imperfections. Passive sensing has no need for an actuator since an impact (B1) creates its own stress wave which is picked by the piezoelectric sensor (B2), converting it to an electrical signal. This can be used in an impact identification monitoring system by transportation authorities.

While Sison sorts through a paper bag filled with chipped stone shards and partially completed stone points, Fairlane explains how the tech identifies each item and notes its essential characteristics. Artifacts of particular significance also get photographed to facilitate future study.

In a separate room, limited only by a light bulb and a high-resolution monitor, Trent Raymer (’19 Zoöl.) photographs a handful of arrowheads and spear points that Sison had flagged earlier. Like everything else in the VCP lab, it’s a painstakingly precise process. Future researchers will need to draw solid conclusions from the lab’s work, so every detail has to be just right.

Meanwhile, Bergquist works at a computer station. Unsurprisingly for a former diesel mechanic, it’s his least favorite station in the lab. Still, he clearly articulates its importance: Without the maps, legal documents, notes, and narratives tying their provenance together, most of these artifacts would be merely random (if interesting) ancient debris. “I care a lot about this stuff,” says Fairlane. She gestures toward the boxes that line the walls, but it’s clear she’s also speaking in a larger sense. “I want to make sure it’s preserved.”

The program, which is funded and overseen by the U.S. Army Corps of Engineers, has a noble mission. The first is Fairlane’s specialty: preserving history. The VCP lab process attempts to collect collections that have been languishing in boxes and storage rooms for years. Decades, even. Most of the WSU lab’s collections were excavated in the 1980s.

In addition, the program gives its veteran employees a boost in the sometimes difficult transition from military to civilian life. The WSU lab, which just completed its first year in the program, is one of several satellites locations scattered across the United States. It works on collections from the Army Corps of Engineers Portland District, which covers most of Washington and Oregon.

While the VCP lab sits all alone to help prepare their employees for college applications and civilian careers, the WSU lab technicians happen to already be in college. In fact, Raymer earned a baccalaureate degree prior to joining the Air Force; he’s getting a second one to kick-start a new career.

As the summer winds down, the lab’s first cohort is moving on: Raymer is hitting the job market, Sison will begin his final year in the WSU ROTC, and Bergquist is finishing a degree in Japanese.

And what happens to all those artifacts they’re painstakingly catalogued, photographed, sealed, and re-boxed? They sit and wait. Until a permanent home is found, the WSU Museum of Anthropology will store them with the rest of its collections. For the first time since they were excavated, these newly curated artifacts—remnants of ancient lives—are available for study and research.

In Qiao’s lab, researchers are exploring two sensor systems for bridges. Active sensing sends a powered excitation signal to a piezoelectric actuator (A2) producing a mechanical stress wave that travels to a piezoelectric sensor (A2). This can measure material properties, cracks, and other imperfections.

The tiny sensors, which can convert mechanical energy, such as squeezing or stretching, into electrical energy, send ultrasound waves through the concrete to pick up cracks or other damage. No drill required. The team envisions the bridge sensors will join the ranks of other smart city technologies in the next few years—there’s a good chance they will be monitoring some of the 7,300 bridges in Washington state.

In addition to an increase in population, demand for vehicles, and the natural course of aging, magnesium chloride in deicers used to clear ice and snow from roads the past twenty years has also softened and damaged concrete. WSU researchers hope to improve these conditions and earn a higher grade for infrastructure.

The cool, high-ceiling basement room in College Hall is furnished in Spartan fashion. On this summer day it’s library quiet, but not by tradition or rule. It’s the natural product of deep concentration, as the lab’s three curation technicians, all student veterans, work their way through a collection of ancient artifacts.

It is a status of unassembled tables in the center of the room. Washington State University senior Chris Sison carefully examines a tray of artifacts, occasionally consulting a set of printed cards or making a note in pencil. The contrast between this and his recent Army tour of duty in Afghanistan—chasing militants and kicking down doors,” as he puts it—couldn’t be more stark.

Fellow curation technician and Marine veteran Stephen Bergquist, a junior majoring in Japanese, sums up the difference between military and civilian life succinctly: “Less stress, more worry.”

Lives don’t hang in the balance anymore, but when you leave the military, your own future suddenly does. Yet neither stress nor worry impinges upon the lab’s occupants as work proceeds under the friendly weather outside on Cassidy Fairlane’s (’14 Anth.) lab. The technicians’ trainer and guide in the Veterans Curation Program (VCP).

While Sison sorts through a paper bag filled with chipped stone shards and partially completed stone points, Fairlane explains how the tech identifies each item and notes its essential characteristics. Artifacts of particular significance also get photographed to facilitate future study.

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Agritourism gives family business a fresh lease on life, and a little fun to boot.

Rainclouds sweep across the prairie as we pull up the driveway to Fresh Cut Farms just north of Spokane. Calling a greeting, owners Jim and Connie Long open the gate and welcome us for an early July tour of their market gardens.

“We’re in progress—new to the agritourism business,” says Jim. “We stood up the farm in 2016 as something to do when I retired from the Air Force. So far, it’s been a lot of trial and error.”

He undulates a seven-strand hot wire fence, meant to keep the deer and coyotes out, and usher us into the garden. The weed-free rows are lush and overflowing with early squash, greens, tomatoes, potatoes, corn, cabbage, peppers, and more.

“We’ve learned a lot,” says Connie. “We sell out at every market, so now our challenge is to grow more food.”

Fresh Cut Farms is one of thirteen charter members in the Wild Rose Prairie Community Association, an agritourism venture managed by Trevor Lane, Washington State University Ferry County Extension director. Good-natured and easy-going, Lane joins us while we’re admiring the Longs’ sheep at Fresh Cut Farms.

“Your plans are to turn it into a historic bed and breakfast that offers a day-in-the-life-of-a-farm experience with specific events like a shearing day or lambing season,” Jim explains to Lane. “We also want to put a roof on the old log barn and make a venue out of it.”

“The million-dollar question is what do we focus on first here?” says Connie. “The animals? The fence? The garden? The old house?” Lane, whose specialty is community economic development, promises to sit down and go over it all with them soon.

They’re in good hands. Lane, as a board member of the Washington Festivals and Events Association, helps troubleshoot problems for small-town festivals as well as large events like the Skagit Valley Tulip Festival, Washington, D.C.’s National Cherry Blossom Festival, and the Seattle Chocolate Festival. He honed his skills as owner-operator of the Backwoods Music and Camping Festival in Oklahoma, which became one of the largest in the region. Lane sold the business when he made the move to rural northeastern Washington in 2014.

“The economic landscape in Republic has declined significantly during the time I’ve been here,” says Lane. “First, the lumber mill shut down. Then, they pulled out the railway and locals had no way to transport goods. On top of that, the gold mine closed. County budgets are strained—commissioners are weeping their hands trying to maintain the services we have left.”

As the newly appointed Extension director, Lane knew he had to work quickly. Capitalizing on the area’s nostalgia and pristine beauty, he brainstormed with community leaders, including Jenny Konz, owner of The Goat Farm—Goat Patrol. Together, they created a farm and recreation map aimed at promoting agritourism in Ferry County. The map highlights 20 small farms and 20 other sites offering rural education or entertainment.

“That was our first success,” Lane says. “That’s when I showed proof of concept—that you can bring farmers together to organize and collaborate. We are now in the early phases of working with the Colville Confederated Tribes to expand the map.”

Ferry County is hardly unique in its struggles. Lane says most of northeast Washington is economically distressed, and word on the street is that agritourism is where you get your money.

“So much so, in fact, that Lane’s agritourism workshops are now in demand all over the state. It was at a 2018 training hosted by Pat Maua, Spokane County Extension horticulture and agriculture coordinator, that Lane met Jim and Connie Long. They took the information back to their fledgling 501c3 nonprofit group and shared it with Ari Alvarez, Lori Roberts, and a few others.

“The Wild Rose Prairie Community Association did everything we did in Ferry County, but made it more formal,” Lane says. “They’re now writing grants and doing other fundraising as well as research on how to better serve customer needs and desires.”

This year, the organization kicked off the growing season by hosting their second annual Wild Rose Prairie Days which included county-owned fun at Fresh Cut Farms, Mud Creek Farm, Evening Light Lavender, North Spokane Farm Museum, and more.

“Everybody I’ve talked to has said this has been a big financial shot in the arm,” says Lane. “Every month gets a little better and they see more traffic and visitors. It’s a quick way to infuse a little cash and help the farmer with gas and other bills.”
A half century of care

BY AADDY HATCH

Fifty years, two moves, several name changes and 10,000 alumni—impressive numbers, but ones that don’t tell the whole story of the Washington State University College of Nursing.

The story is in the soothing words and touches. In the correct calls on patient care made by virtue of training and experience. It’s in the leaders who emerged, and in the research to advance knowledge and practice. The story of the college is in the Coug nurses who’ve served in hospitals and clinics, nursing homes and military bases around the world for 50 years.

The college has built a legacy that people recognize and value,” says Chris Liss (’18 Nursing). He’s part of that legacy; his mother was a graduate of the Intercollegiate Center for Nursing Education, the precursor of the WSU College of Nursing. Now he’s working in the emergency department at Seattle Children’s Hospital and says candidly, “I know I’m riding on the coattails of those who’ve come before me.

The WSU College of Nursing was the first nursing program in the country to bring together students from multiple universities and colleges. “The first group of students were the beneficiaries of a small cohort of faculty who were determined that this was to become a nationally recognized nursing program,” says Professor Emeritus Charles Clark. “History can attest to its growth and success.”

Teresa Farias can confirm the college’s story. She was the first in her family of 13 kids to attend college, graduating with her bachelor’s in nursing from the Tri-Cities in 2015. She didn’t start on her nursing degree until she was 33, newly divorced and with three children. Now she’s a labor and delivery nurse at Trios Health in Kennewick, where she sees part of her role as leading by example. She’s certainly done that at home: her daughter and niece are both in the nursing program at WSU, her son entered the WSU College of Pharmacy and Pharmaceutical Sciences this fall, and her nephew is strongly considering nursing, too.

“I feel like I opened the doors for them,” Farias says.

Mykette McFarlane is a junior, meaning she’s in her second semester of nursing school at the College of Nursing in Spokane. She’s already learned enough to know that nursing calls to people who are empathetic, yet practical.

“It’s in the way we assess patients; not in terms of a drug or a diagnosis, but in, ‘How can I get you whole again, or at least as close to whole as you were before?’” she says. “Or if you’re at the end of your life, how can we make that as beautiful as possible? Any time you bring in a nurse, you bring in humanity.”

Where science takes you

When Washington State University doctoral student Kautili Witherell was a child, she frequently went to work with her scientist mother. Through her young eyes and vivid imagination, she watched her mother complete complex calculations that filled entire pages, make exotic and colorful solutions, and use alien-like equipment that seemed more magical than practical.

Witherell learned this magical world of science, and it eventually cultivated her interest in microbiology. That curiosity would lead her to exploring innovative antimicrobial solutions at Washington State University.

In high school, her passion for science first came to fruition in an extensive project on the microorganisms that survive by oxidizing the iron of the Titanic.

Witherell earned a microbiology bachelor’s from the University of California, Davis, where she fell in love with its community of shared knowledge and support. And, while a supportive community would be a factor in her choice of graduate school, another benefit cemented her decision.

“I was interested in the Immunology and Infections Disease program at WSU,” Witherell says. “I visited the Pullman campus for my interview, and everyone was so nice, supportive, and willing to help.” After she learned she’d received an Achievement Rewards for College Scientists (ARCS) award, Witherell chose WSU, where she’s studying microbiology in Douglas Call’s laboratory in the Paul G. Allen School for Global Animal Health. Molecular epidemiologist Call is also her advisor.

The Seattle Chapter of ARCS Foundation sustains a strong partnership with Washington State University and the University of Washington, and they support 157 scholars from both universities. It been 20 years since ARCS began funding graduate research at WSU’s College of Veterinary Medicine. Now the awards support 53 fellowships across four colleges at WSU in perpetuity through endowed doctoral fellowships.

When Witherell started her graduate program at WSU, she was stunned to realize how much she didn’t know. Fortunately, her “imposter syndrome” dissipated as she went to work in a field she loves.

“My experiments were going very well, and I was getting mountains of good data I could present at symposiums and conferences. Simultaneously, she found encouragement through another source. “It helped that I had an entire team behind me,” says Witherell, “encouraging me to work hard and push through my confidence issues. Bruce and Joanne Montgomery, my ARCS supporters, are wonderful, generous people and made me realize I deserve to be here. I hope to pay their good work forward by supporting other young scientists when I have the means to do so.”

In the Call laboratory, Witherell works on a collaborative project with the Fred Hutchinson Cancer Research Center involving antimicrobial peptides. These antimicrobial peptides, called knottins, are produced as a natural defense mechanism in organisms, such as plants, sea snails, venomous snakes, and scorpions.

The researchers from Fred Hutch contacted the Call lab because they had found a way to produce synthetic knottins called optides. “I am fortunate to work with Dr. Call,” Witherell says, “and this project is perfect for me. I am passionate about my research, because I see how it can lead to creating new antibiotics to save lives. I can make a difference in the world. Plus, I enjoy the work so much it doesn’t feel like work.”

The Call lab’s library of potential antimicrobials has already identified several optides effective at killing a variety of multidrug-resistant bacteria. Witherell’s role involves finding which optides are most effective by themselves, which have synergy with extant antibiotics, and how optides kill bacteria. Through her experience in the Call lab, Witherell secured an internship at Blaze Bioscience, Inc., in Seattle. Blaze is a partner with Fred Hutch and owns the rights to the optide project. “Blaze is a small company,” she says, “so I frequently worked at Fred Hutch, which had the equipment I needed and enabled me to create some of the antimicrobial peptides I’d been researching.”

After earning her doctorate, Witherell plans to seek a career in industry or government. “My objectives might change,” she says, “but I will go wherever the science takes me.”

WSU COLLEGE OF NURSING

Locations: Spokane, Vancouver, Tri-Cities, Yakima, Walla Walla
Alumni: Approximately 10,000 over 50 years
Students: Approximately 900 total (all campuses, all programs)
Degrees: RN-BSN, a degree completion program for working RNs; bachelor of science in nursing (BSN); master of nursing (MSN); doctor of nursing practice (DNP); PhD

The WSU College of Nursing well celebrates its next 50 years at a gala on March 7, 2020, at the Historic Davenport Hotel in Spokane.
Quite a crew

BY ADRIANA JANOVICH

"It was totally grassroots," says former WSU rower Dave Arnold (’88 History). "It was grit and perseverance and scrappiness. People sacrificed to do it."  

In 1979, not quite eight years after the team’s first practice, a heavyweight four with a coxswain from WSU’s young program placed first at the Intercollegiate Rowing Association’s national championships. A year later, in 1980, a coxed pair took home the same honor. Those early successes were followed by strong showings in the ’80s and ’90s, including winning Pac-10 championships for lightweight eights in 1985 and 1986. (Arnold was in the winning 1986 boat.)  

But, by the early aughts, the number of student-athletes and rowers inevitably got cold and wet and...
Not just the goose of holidays past

BY ADRIANA JANOVICH

THE HOLIDAY GOOSE—ONCE PRIZED FOR ITS RICH, DARK MEAT AND DRAMATIC LOOKING PRESENCE ON A PLATTER—HAS BECOME A RARE BIRD. Today, breeding and raising geese in the Northwest is more of a novelty. „South Dakota’s Schlitz Goose Farm—with about 100,000 geese—is the largest goose producer in the United States. If you buy goose at the grocery store, it’s likely from Schlitz. Locally raised goose is somewhat of a novelty. „Geese were more likely part of the farm or food system in the days of homesteads and farmsteads. It was normal for families to raise their own geese for their own survival or their own sustenance,” says Nicole Witham, the statewide coordinator for Washington State University Food Systems.

“We’re somewhat removed from those ways of life and how we buy our food now,” Witham says.

Roast goose was a staple at the Victorian table. The 1843 novel A Christmas Carol describes in depth the anticipation for the Christmas goose. “Such a beastly ensured that you might have thought a goose the rarest of all birds, a feathered phenomenon, to which a black swan was a matter of course—and in truth it was something very like it,” Charles Dickens wrote. Even Tiny Tim “beat on the table with the handle of his knife, and forcibly cried Hurrah.”

Roast goose—elaborated, majestic-looking, and swaddled in a thick layer of fat—still makes for a spectacular centerpiece. But, throughout the generations, demand for goose has declined in the United States. According to the Agricultural Marketing Resource Center, Americans eat about a third of a pound of goose per person per year; consumption of goose is even less—so much less that a specific figure wasn’t given. Sales experience an uptick during the holiday season. But goose aren’t popular poultry. Portrayals in art and literature present geese not just as a symbol of simplicity—the phrase “slip goose” comes to mind—but also selflessness, innocence, or personal freedom. In her famed 1896 poem Wild Goose, Mary Oliver wrote, “Whoever you are, no matter how lonely, / The world offers itself to your imagination/ Calls to you like the wild goose, harsh and exciting.”

Geese mate for life and are protective of their families, so they also represent loyalty, fidelity, home, and vigilance. In Homer’s ancient epic Greek poems The Odyssey, they represent Penelope’s suitors. Twenty goose appear to the queen of Ithaca in a dream only to be killed by an eagle representing Odysseus back home after twenty years of traveling. And, in ancient Rome, legend has it that the sacred goose of the Temple of Juno warned of an impending attack by invading Carthage by flapping their wings and honking.

Of course, then, there’s Mother Goose. The term is now dated to mid-seventeenth century in France, where Charles Perrault’s collection of fairytales was published in 1695 with the subtitle “Tales from my Mother Goose.” Not quite a century later, in England, Mother Goose became synonymous with nursery rhymes following the publication of Mother Goose’s Melody, or, Sonnets for the Cradle. The character is typically portrayed as an old woman riding a flying goose or, sometimes, as a bonnet-wearing goose.

Bred in ancient Egypt, China, and India, domestic geese arrived in the New World via Europe, where they remain popular—especially in northern countries—for holiday dinners. Roast goose is also particularly popular in Hong Kong, where restaurants specialize in the dish—often displaying whole birds, ready for carving, behind glass cases.

Today, breeding and raising goose in the Northwest is more the exception than the norm. And farms that keep them often use them not for meat but for help. “They’re more like really good on-farm labor,” Witham says. “They really help manage a lot of different issues, especially in an orchard situation where the trees are hardy enough. They don’t injure or bother the trees; they just mow the grass. But, even in a strawberry or berry patch, they’ll come along and graze along the bottom of the plants. They might also offer a byproduct of extra eggs. But I’m not seeing them much these days as a full-blown meat enterprise.”

Finnriver Farm and Cidery in Chimacum, ten miles south of Port Townsend in rural Jefferson County, uses geese in its apple orchard to keep grass down. Their work “allows airflow down around the trunk and soil line, which is an area where we have a lot of problems with fungal pathogens because grass holds moisture. When you crop that grass really low, like the geese do, that allows for more airflow and helps relieve that pressure of the pathogens,” such as anthracnose and collar rot, says orchard manager Cameron Denning, who landed a full-time job at Finnriver after completing a FIELD (Farm Innovation, Education, and Leadership Development) internship through WSU’s Jefferson County Extension.

Two years later, in 2015, Finnriver acquired geese from WSU’s Twin Vista Ranch on nearby Marrowstone Island. “We found that 30 geese could manage about two acres if you rotate them every month,” Denning says, noting Finnriver’s orchard covers ten acres. A grant from the Seattle-based Tilth Alliance allowed Finnriver to add 90 goingshine from California’s Merwin Farms as well as electric fencing, three solar fence energizers, and food and water dishes to help support them.

Today, Finnriver has about 100 geese. In addition to grass, “they eat whole apples that drop prematurely and, in the process, they’re reducing the load of codling moth that would overwinter and become a problem the following season. Geese are vegetarians. But they’re eating apples that have the larvac of the moth in them. We’ve seen a reduction in coldling moth pressure since we’ve had the geese,” says Denning, who’s also led an orchard management workshop through WSU’s Extension Regional Small Farms Program.

This is the first year Finnriver has been collecting goose eggs to sell to the public at a nearby farm stand and food co-op. The farm is also considering selling goose, directly to customers and on a small scale for a limited time, for meat. “We’re finally at a point where we can make those decisions to balance the flock to meet our winter needs,” Denning says, adding, “I think they would be sold in a heartbeat.”

Goose is a good source of iron as well as B vitamins, riboflavin, zinc, phosphorous, and selenium. One 5-ounce serving has 41 grams of protein and 340 calories—of which 163 are from fat. Most of the fat on a goose lies under its skin, not marbled throughout the meat. During cooking, that fat melts and basically butter the bird, helping it keep moist and tender. You’ll want to save it, too, goose fat stores well and makes for gloriously crispy roasted potatoes.
**WINDS CHANGE**

From the surging polar vortex to unprecedented flooding and fires on every continent, the Earth’s ventilation system is clearly out of whack.

Along the western Pacific coast of North America, a monarch butterfly is seen landing on a tree. "It’s a planetary air circulation system that has been very consistent and mostly reliable—despite occasional nudges from El Niño and La Niña—one that modern mariners still use to navigate the globe," says Alex Guenther, "Climate change is like loading the dice so more of these types of unusual weather events in the future," Guenther says. "As greenhouse gases accumulate and the climate adjusts in response, the probability of these events increases."
In recent years, climate scientists have observed the jet stream taking on a wavy shape (dashed line) instead of its more typical oval (solid line) as it circles the North Pole. This change has produced episodes of extremely cold weather in the mid-latitudes with simultaneous periods of mild temperatures in the Arctic. Staff illustration from NOAA/Climate.gov

In fact, Guenther says about 80 percent of global organic aerosol precursors in the atmosphere are generated by natural emissions.

“In a clean, pristine environment, the compounds emitted from trees don’t have a negative impact,” he says. “But in a polluted atmosphere, these volatile organic compounds can form substances that affect both the ability of sunlight to reach the Earth’s surface and the Earth’s energy and heat to pass back out into space.”

Though greenhouse gases continue to rise and smog remains a major problem in cities such as Dallas and Los Angeles, Guenther says overall levels of pollutants like ozone and smoke-stack particles are dropping in the United States and Europe thanks to diligent clean-up efforts. As a consequence, the percentage of natural emissions is on the rise.

“When you get down to these low pollution levels, natural emissions become very important in determining the strategies we use to protect air quality,” he says. “In essence, these plant compounds act as fuel that can be ignited by air pollution.”

“When you burn fossil fuels, you release a lot of nitrogen oxides (NOx) into the atmosphere. Plant terpenes and other compounds interact with NOx to change the chemistry of the atmosphere and produce ozone and particles, all of which eventually affect the climate and, in turn, the wind patterns.”

Guenther is currently studying atmospheric chemistry in remote areas of the Amazon jungle and Australia, which have recently experienced record-breaking heat, drought, and fires. Closer to home, he and his colleagues are investigating curious air pollution patterns in southern California.

“The strategies to clean up the air in L.A. had been working and pollution levels were consistently dropping year by year,” he says. “But recently, it hasn’t dropped and some levels actually have gone up a bit, even when you exclude periods influenced by wildfire smoke. And it’s not clear why.”

“According to models, it looked like pollution levels should be dropping as they reduce nitrogen oxides in the atmosphere. So, government agencies are very interested in finding out why. One thing that seems likely is the droughts we’ve been having here. We’re thinking the droughts and heat are having an impact.”

“Guenther isn’t the only researcher scratching his head over climate trends that deviate from previously reliable models and predictions. On the other side of the world, climate scientists like Deepthi Singh untangle a puzzling ball of factors causing misery for the people of South Asia. Originally from India, Singh is now an assistant professor in the School of the Environment at WSU Vancouver, where she investigates alarming shifts in the South Asian monsoon season. Approximately 1.8 billion people rely on these warm summer rains for their water supply, so unexpected variations can be a matter of life or death.”

“All agricultural activity is triggered by the start of the monsoon, which brings about 80 percent of the area’s total rainfall,” Singh says. “Most farmers in India, Pakistan, Bangladesh, and neighboring countries wait till the onset to start planting crops. They also rely on the monsoon to replenish rivers and wells.”

Singh says the arrival of the summer monsoon is the result of a seasonal reversal of wind patterns that is triggered by a seasonal reversal of temperature gradients.

During winter, the Indian Ocean is slightly warmer than the land, causing winds to blow toward the sea. As land heats up during summer, often exceeding 30 degrees Fahrenheit, the winds change direction carrying moisture-laden ocean air inland where it is released as monsoonal rainfall.

Since about 1950 however, this temperature gradient has steadily weakened causing a subsequent weakening of the monsoon and decline in rainfall, says Singh. Yet curiously, there’s been a recent uptick in precipitation.

“It’s interesting because if you look at the last 10 to 20 years, you see a rapid increase in temperatures from global warming,” she says. “But when you look longer term, from 1950 to 2000, you see a slight cooling trend over that part of the sub-continent during monsoon season specifically.”

“It’s confusing as generally greenhouse gases cause warming everywhere. But over South Asia, we have some really complicated processes going on. There are other human activity factors involved that could be responsible for that cooling trend.”

One culprit is the massive amount of man-made aerosols in the atmosphere—the tiny particles released from burning coal and other fossil fuels. The level of aerosol pollution over South Asia is the highest in the world besides China. In addition, the region claims the world’s most intensive use of irrigation, especially in northern India.

“Irrigation can have a pretty substantial cooling effect on climate in the area,” says Singh. “Some people are even toying with the idea of using it as a mitigation strategy for global warming, though groundwater depletion is a concern.”

On a deeper and more ominous level, Singh says the monsoon rains have grown increasingly erratic with dev-
all this unpredictability leads back to Walden and the fact that the Arctic is warming twice as fast as the rest of the world. He says it’s due to something called Arctic amplification, and clouds are playing a role.

In 2015, Walden spent a month with a group of international scientists aboard the Norwegian research ship, the Lance, in the Arctic Ocean. There, at the FullBleed Distinguished U.S. Arctic Chair, he collected atmospheric data including measurements of clouds in an attempt to determine the cause of these warming systems. 

"Imagine we have an ice-covered Arctic Ocean—and ice is very reflective of sunlight," he says. "Now, start warming up the Arctic and the ice melts, exposing ocean water which is very good at absorbing solar radiation. This causes more warming, which melts more ice and exposes more seawater which absorbs more sunlight which melts more ice and exposes more ocean. The process continually feeds back on itself—amplifies." 

Recent scientific analysis, including Walden’s Arctic Ocean and Greenland research data, showed that clouds forming in the Arctic contribute a surprising amount to the balance of energy at the polar surface. Clouds, in fact, add to the warming trend, especially in fall and winter.

Walden says that although it is an extremely complex process, the latest climate models constructed in the 1980s and early 1990s largely predicted Arctic amplification. "We’ve known this for a very long time," he says. "We’re seeing that trend year after year; for example, with the extensive melting of Greenland ice last summer.

And, as Arctic amplification continues—and temperature and pressure gradients shift—we’re loading the weather dice for Category 5 hurricanes, a bad fire season, and other extreme events." 

He pauses. "Yet, you can’t say one fire season or the next was caused by climate change as it may have naturally done that anyway. It’s confusing for some people to understand that we can’t necessarily tie a weather event directly to climate change. And, if we can’t do that, why are we predicting anything?"

"Let’s put it this way—say I’m driving through Montana with its 80-mile-per-hour speed limit and choose not to wear a seat belt. There’s a chance I’ll be fine but, if I do get in an accident, what’s the likelihood I’ll get hurt without a seat belt versus wearing one? We all know that my odds are not very good. I’ve loaded my possible injury by not having a seat belt and also by going 80 instead of 60." 

Walden laughs. "It’s not like you couldn’t drive across Montana and be just fine but you’re not as safe without a seat belt."

"So, this is definitely the way climate change works. Through past evidence of how the Earth has responded plus future climate modeling, we believe that as greenhouse gas increases and the planet warms, we’re loading the dice for certain weather events to occur—like dry hot conditions in summer, more rain during winter, less snow, lower sea ice, and of course, more frequent visits from the polar vortex."
After the War of 1877, Robbie Paul’s grandfather was 10 when, along with six other children, he was shipped from the Nez Perce exile camp in Oklahoma to the new Indian boarding school in Carlisle, Pennsylvania. As her grandfather started with his mother that day in 1880, mother said to son: “You can get his hand inside his coat. She thinks he’s clutching the medicine bag that he still spoke fluent Nez Perce. “I am a product of a post-boarding school—opened at WSU’s Manuscripts, Archives, and Special Collections in October. Their Indian boarding schools damaged generations of people with their philosophy of extreme assimilation. The system’s founder, Richard Pratt, said, you have to “kill the Indian” in order to “save the Man.” This pedagogy of oppression stripped multiple consecutive generations of North American indigenous people of their names, families, languages, stories, cultures, and land. Their medicine bags were outlawed, too.

Access, trust, and disparity
The history of the relationship: Native Americans and Alaskan Natives are understandably reluctant to trust Western institutions.

Researchers, in particular, must deal with a legacy of “heirocracy.” Buchwald says: “I think the data they think is important, and then leave without so much as a thank you, much less a call back with results.”

Buchwald, a professor of community health care and the director of BIRECH, the Institute for Research and Education to Advance Community Health at WSU, says that why “community-based participatory research is the corn of the range.”

As tribes have become more empowered in recent years, health researchers now work with communities to learn what the communities want. Research, treatment, and intervention projects are conducted in collaboration with Native communities, and all data are shared with them.

As Paul points out, it’s not just a matter of getting Native peoples to accept and trust in the ways of Western medicine. Researchers and providers need to respect the vast body of traditional knowledge that indigenous people have developed over millennia. She says health-care providers shouldn’t just practice on a patient; ideally, they practice with the patient, by combining listening skills with cultural competency.

“We have our unique understanding of our health and our culture ways, and how to best listen to a patient.” Paul says. “I strongly feel that we can listen to our own, and a lot of people don’t have that understanding unless you are of our culture. You can help and listen, but I don’t think you can have the fully understanding. It’s an issue of trust to our own, and a lot of people don’t have that understanding unless you are of our culture.”

Although outlawed for centuries, a new sense of respect and appreciation for traditional knowledge is dawning among researchers and practitioners of the Western tradition. Once again, the medicine ways of Natives are being embraced. And, as WSU public health researcher Lonnie Nelson says, married to Western medicine to create better health-care for everybody.

Overcoming disparity through diversification

Nelson’s heritage is rooted in the eastern band of Cherokees Indians, those who resisted relocation to Oklahoma. His mother was a nurse with the Indian Health Service around a lot,” living on or near reservations.

“Native Americans and Alaskan Natives face a lot of health disparities that find their roots in settler-colonialism and the cultural genocide that has been visited upon our population for the past 200 years. Just for around any context you look at by outcomes and ethnicity, they’ll almost always be worse for us,” he says.

Nelson says it is “absolutely true” that having participation of Native practitioners and researchers will help reduce health disparities and improve access. He just took on the position of assistant director for special programs to grow Native initiatives at WSU’s health sciences campus in Spokane. He plans to recruit Native high school students to come to Spokane for six to eight weeks at a time to work with health science researchers. “They’ll see what it’s like to work on campus and do research. They’ll have that exposure to the reality that this is a possible career for them.”

“I am a product of a program very much like that.”

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“Never been a move to redefine those metrics we use, testing, GPA’s, have been the main admission criteria, but they don’t necessarily tell you have someone with really good critical thinking skills or that they’re going to serve a community and be a good practitioner. So there’s been a move to use those metrics as a screening tool at the beginning, but also certain other criteria, such as life experience. And you have criteria on your mission: What kinds of students do you want to have and to produce? So you might look at what kind of providers we need for Washington state. Do we need more Spanish-speaking practitioners, more low income, more rural? We’re going to do that in coming next year. The College of Medicine already has that going.”

Daryll DeWald, chancellor of WSU Health Sciences Spokane, affirms this idea: “We want to make WSU Health Sciences an enviable setting for American Indian and Alaskan Native students who want to be health-care practitioners. One of the primary reasons that health disparities still persist in these populations is a shortage of Native physicians, practitioners, and researchers.”

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“None of us have our unique understand- ing of our health and our culture ways, and how to best listen to a patient,” Paul says. “I strongly feel that we can listen to our own, and a lot of people don’t have that understanding unless you are of our culture. You can help and listen, but I don’t think you can have the fully understanding. It’s an issue of trust to our own, and a lot of people don’t have that understanding unless you are of our culture.”

Although outlawed for centuries, a new sense of respect and appreciation for traditional knowledge is dawning among researchers and practitioners of the Western tradition. Once again, the medicine ways of Natives are being embraced. And, as WSU public health researcher Lonnie Nelson says, married to Western medicine to create better health-care for everybody.

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After Paul retired, Naomi Bender, a Quechua from Peru by way of Minnesota, was hired as director of Native American Health Sciences. “Only nine or ten medical schools have a focus on recruiting and training Native students,” she says. WSU is joining that group. “Two Native students started in the fall 2019 medical college class.” Because Natives tend to live more collectively than most Americans, Bender says, their inclusion in medical school not only “trains people, but moves and educates entire communities toward healthier outcomes.”

**Ways of Knowing**

While training Native people in the medical professions and to conduct research in their own communities is critical to healing the health disparities they contend with, everyone could benefit by taking seriously the traditional knowledge of indigenous people. As Nelson points out, “The word ‘medicine’ does not mean the same thing that it does to Western-thinking individuals. Yet in order to heal someone, they are referring to anything that has an effect on the way you feel; a story, a walk in the woods, a river, nature, a good meal. And maybe you have bad medicine associated with it because someone took their life there. So using a not a substance. Western science has a lot to learn from the perspectives of indigenous people.”

“Traditional knowledge,” Buchwald says, “is based on approaches that have been tested for thousands of years. Even though many of their traditional practices have not been vetted in randomized controlled trials, I do think there’s valuable information, both in the methodology, how do you do something, as well as what you do. That value is just beginning to be explored.”

Nelson, who uses talking circles in his intervention and harm-reduction research, explains that, growing up Indian, he “felt a cultural divide between the school I went to and the school I grew up in, which was much more culturally diverse.” To remedy this, he created “a community school” that offered Native students a chance to learn in their own culture. “I want to get them engaged,” he says. “Initially, I don’t care if they go into the medical profession; I just want them to have an interest in the community.”

In studying alternative and emergency medicine, he discovered “some pretty interesting overlap with the Native worldviews in terms of the connectedness of everything, between people and plants and animals. And Buckwald’s efforts have resulted in “the country’s biggest and most successful program in regard to training Native researchers: 48 PhDs and MDs, with $200 million in grants.”

As a paradigm for healing disparity, listening is certainly a good place to begin. “My father never preached, he just gave me the lead,” Bender says. “You have to have a strong spirit guide, but you also have to learn to listen quietly.”

“Instead of narrow tracks for nursing, pharmacy, and doctors, everyone gets a good dose of their colleagues’ working knowledge. This, too, is a kind of marrying of traditions and, in healthcare, of professions that have been so segregated by gender: 75 percent of nurses, for example, are white while only 20 percent of doctors are. Nearly 70 percent of doctors and surgeons are white. And although the percentage of female doctors and surgeons is increasing rapidly, males still earn, on average, nearly $300,000 per year more than their female counterparts.

Interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating personal, interprofessionalism not only tends to break down the traditional barriers for women and people of color, it also furthers 20 percent of WSU’s emerging strengths; incorporating person...
His canvases are mostly covered with cowboys and horses now, along with their accompaniments—saddles and chaps, barns and fences, cows, canyons, rivers, red rocks, ropes—all things he’s loved from an early age.

Don Weller (’60 Fine Arts) worked for decades as an illustrator and graphic designer before making a second career of painting images of rodeos and ranches and, in a sense, getting back in touch with his roots. “Searching my earliest memories, I’m not sure I ever believed in Santa Claus, but I know I always believed in cowboys,” he writes in *Tracks: A Visual Memoir*.

In his new, 200-page book, Weller details his artist’s life through original works, a color-coded timeline, and vignettes divided into three parts: Making Marks, Having Adventures, and Leaving Tracks. He describes his childhood and college days in Pullman; his early career designing posters, advertisements, and record and magazine covers in Los Angeles; and his return to the countryside with a move to Utah. “My life began shy and unsure, with narrow interests, spending many hours alone with a pencil or brush or horse. And that is still me,” he writes.

Weller grew up in the rural West in the 1950s—“at 416 Illinois Street, at the corner of Monroe, on the north side of College Hill,” to be precise—and fondly remembers sledding down Monroe Street in winter and fishing at Twin Lakes in summer. His dad, Harry C. Weller (’23 Arch. Eng.), taught architecture at Washington State College and, the artist writes, “since the town was so tied to the college, enrolling there was just the natural order of things.”

Initially, Weller aimed to become a veterinarian. “I thought that’s what you did if you wanted to be a cowboy and your dad didn’t own a ranch,” he says. “When I was a little kid,
before high school even, I found out where the college rodeo club practiced, and it wasn’t too far from our house, probably two miles away. I rode my horse there and watched them. Pretty soon they showed me the ropes. When I got to college, as soon as I signed up for my classes, I signed up for rodeo club.

He quickly learned he preferred riding and drawing to taking science classes and switched his major. WSU drawing teacher Ed Proebstel was a great influence. “He told our class if you wanted to learn to draw, you better carry a sketchbook everywhere you go and use it. Because of him, I carried a sketchbook for the next; 20 years and filled tons of them. I would draw in airports if I was traveling. I would draw people in meetings. I would draw everywhere, draw, draw.”

But, he writes in his memoir, “Without someone to write checks, art is just a hobby.”

So, after graduation, Weller sold his horses, moved to Southern California, and spent the next several decades doing graphic design and illustration. “The spirit in LA’s best design offices was competitive, and far from 9 to 5,” he recalls. “We wanted interesting creative solutions for our clients and worked night and day to produce them.”

Weller became known for his creative ideas and visual solutions. Eventually, he started his own design firm and created posters for the Hollywood Bowl, Rose Bowl, National Football League, and 1984 Olympic Games. And he did some part-time teaching too—three years at UCLA and 11 years at the Art Center School in Pasadena.

The 60s and 70s were “an intoxicating time for West Coast designers,” Weller says. “Clients were realizing the merits of good effective problem-solving design and were willing to pay for it. We cared about good clients and competed for them. Graphic design was coming into its own all around us, a golden age. In New York and LA, design was developing its sophistication in a clean, corporate way, but on the West Coast we were developing our sophistication in a direct way. We were willing to pay for it. We treasured good effective problem-solving design and ideas and visual solutions. That was our challenge, and we loved it.”

Weller also created five stamps for the United States Postal Service, illustrated three children’s books, and published several art books in addition to his recent memoir. His work has appeared in publications from Time and TV Guide to Reader’s Digest, Sports Illustrated, and more. He’s also exhibited his art from Arizona and California to Texas, Utah, Montana, and Wyoming.

“Looking back, my interest all the way through has been drawing and ideas,” he says, noting he’s thoroughly enjoyed both of his careers, first producing art for commerce and now painting images of the West. After the cement and palm trees of Southern California, he says he’s glad to be horseback again, among cowboys and cutting horses.

Home is Oakland, Utah, about seventeen miles northeast of Park City, where he lives with his wife Chikako, known as Cha Cha. Weller still paints “pretty much every day,” some days as long as ten hours. He uses tencolors or oil paints to capture the same images that intrigued him as a young boy on the Palouse. “I kind of feel time is running out,” he says. “The last few years, I’ve had this really strong urge to paint.” *

REPORTING FROM THE HARD PATH

To help tell the story of refugees fleeing Venezuela on foot, Andrea Castillo walked with them.

It took five days to trek from Cúcuta, just over the border in Colombia, to the sprawling city of Bucaramanga, which sits on a plateau in the widest branch of the Colombian Andes. Castillo (’12 Comm.) walked more than half of the 120-mile route earlier this year, stopping for just one meal a day—and losing seven pounds in the process.

Making that journey, she says, was one of the most important things she’s ever done.

Since graduating from the Edward R. Murrow College of Communication at Washington State University, Castillo has also investigated substandard housing, covered the aftermath of an earthquake, and written about stateless children born to Venezuelan refugees in Colombia. Her reporting has taken her fromPullman toPortland, Oregon, and Fresno, California, as well as Mexico City, and beyond.

But, she says, “I didn’t grow up reading newspapers or really paying attention to the news. I always knew I liked to write, but I didn’t see it as an option. I didn’t know if I saw my community in the paper.”

Castillo was raised by a single mother in Seattle and the northern suburb of Edmonds. Her mother came to the United States from Venezuela, and Castillo grew up speaking both English and Spanish at home. Today, her fluency in both languages helps her cover stories on the immigration beat at the Los Angeles Times, balancing breaking news with long-term reporting projects.

At WSU, she worked for The Daily Evergreen and studied abroad twice, writing for The Times of India during a six-month stay in 2011 and managing social media accounts and translating blog posts for a human rights nonprofit in Ecuador the year before that. In spring 2012, just before graduation, she also participated in a “backpack journalism” project in Nicaragua.

These experiences helped her realize “I wanted to write about social issues and the experiences of immigrants and people of color in the U.S. I wanted to represent people like my mom, who I never saw reflected in the media. I wanted to tell stories.”

Professor Ben Shors with encouraging her to pursue those goals. “He’s such an accommodating editor, willing to tackle topics and dig into issues both on campus and abroad. Her work is a gold standard for Murrow students, combining brilliant journalism with social conscience and deft analysis.”

Castillo landed an internship right out of college at The Oregonian, where she covered immigration and Latino issues as well as education and several small cities. She stayed on for several months as a full-time staffer before moving to The Fresno Bee, where she specialized in immigration and LGBTQI issues. A special project on substandard housing caught the attention of a Los Angeles Times editor, who recruited her for the newspaper’s metro desk.

Seven months later, the Puebla earthquake struck, injuring more than 6,000 people and killing 370, including 228 in Mexico City. Castillo landed there the morning after the quake. “I think I worked twenty hours that day,” she says. “It was really, really emotional.”

Also emotional: covering the story of a father and son detained by federal immigration authorities while dropping his daughter off at school. His arrest was filmed by his then-13-year-old daughter; the video went viral.

Castillo followed the family’s story for a year. When we met at a coffee shop in Inglewood, northeast of the newspaper’s new offices in El Segundo, she was—among other things—looking into sexual abuse in detention centers in California.

Stories like these, she says, give her a chance to grow her investigative and narrative skills as well as work on what hooked her on journalism in the first place: documenting history as it happens and speaking truth to power.

While it’s still early in her career and she’s happy where she is—“I love LA. I love the West Coast”—somebody, she says, “I would love to be a foreign correspondent.” *
Reel deal:
Clark Pederson of Deadliest Catch

BY ADRIANA JANOVICH

Asking the captain for permission to marry his daughter—on camera, in the wheelhouse, during season thirteen of Discovery Channel’s Deadliest Catch—was nerve-wracking, but it wasn’t his scariest moment aboard the Northwestern.

That distinction goes to a “really bad” storm during his second season on the boat, says Clark Pederson (’80 Comm.). “We have to put chains over the top of the pots to hold them down. You’re on top of a 35-foot stack, and waves are 45 feet, and everything’s frozen up there. It’s a big skating rink on top of the pots, and the boat’s in the middle of a storm. It’s definitely scary.”

But, “there’s no time to sit and think about it. If you’re worried about getting hurt that’s when problems happen. There’s time to second-guess yourself or be soft.”

After graduating from WSU Pullman, Pederson worked as a deckhand and captain-in-training on the Columbia River and aspired to be a maritime pilot, helping ships navigate the waterway’s hazardous bars, shoals, and currents. He earned his third-mate unlimited license at the California Maritime Academy, where he met his future wife, Mandy Hansen. Pederson, already a regular on Deadliest Catch aboard the Northwestern.

She practically grew up aboard the boat, owned by her adopted father, celebrity crab-boat captain Sig Hansen, and his younger brothers, Norman and Edgar. “I’m extremely lucky to be working with my family,” she says. But, “if something was to happen with the boat, the majority of our family would be gone. Everything’s on the line out there. It’s a matter of life or death.”

Pederson joined the crew as a greenhorn, or novice deckhand, in 2006, and won the captain’s daughter a year later. Their marriage proposal and Norwegian-style wedding—in front of the Northwestern docked at Seattle’s Pacific Shipyard—were part of season thirteen.

Season fifteen of the Emmy Award-winning show aired earlier this year.

Summer, the crabs fish for salmon. Fall and winter, it’s several kinds of crab. They’re generally at sea about three months at a time. That first season aboard the Northwestern, Pederson says, “I fell in love with fishing. I was totally drawn to boat life. It’s an adventure.”

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100% of the profits from sales of Butch’s Britches apparel will be donated to the Crimson Opportunity Scholarship for students in need of financial aid at any WSU campus. Sporting our new jean jacket is a great way to show your true colors as a Coug.

“Having a student voice on the Board of Regents is invaluable,” says Governor Jay Inslee. “Student regents act as advocates for their peers, they represent the students’ needs and concerns, and are also able to communicate the regents’ decisions to students. Student representation is crucial to the institution’s leadership and governing.”

The governor selects the student regent from three to five finalists recommended by the governing body of the Associated Students of Washington State University (ASWSU). Regents attend four meetings and two retreats each year.

“We are always trying to serve the state better, and I think we do a better job if we have a diversity of expertise, life experiences, and viewpoints represented on the board,” says WSU President Kirk Schulz. “That’s why it’s so important to have student regents. They offer a valuable perspective—and often great ideas—to board conversations that no one else can offer.”

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JANELLE MILODRAGOVICH


When she was a junior—and ASWSU chief of staff—at WSU Pullman, Janelle Milodragovich (’99 Poli. Sci.) made a bid for ASWSU president at the same time candidates were being sought for the first student regent. She applied for the new position “not really knowing what it was about.” While she didn’t win the election, she was appointed to the board by then-Governor Gary Locke. She also eventually married her running mate, would-be Governor Locke. She also eventually married her running mate, would-be Governor Locke.

The first student served for the 1998–1999 academic year. Two decades later, Washington State Magazine connects with alumni to reflect on their time on the board.
had won the ASWSU election,” says Milo
dragovich, CEO of Ten Gun Design, a full-
service creative agency in Edmonds. “I felt
like I could do a lot of good.”

During one dinner, she was seated
between WSU’s then-President Sam Smith
and, from where the incident took place, “the
magazine waves—but that man was shot
dead. The man with the rope is trying to walk
back up steep Twenty-first Street in Lewiston,
Idaho, to where it turns into Thain. There’s a
pavement there, where a corn doll in a glass
case speaks to him; she knows things. When
he gets there, the doll is gone. Done, the owner,
says she wouldn’t shut up, so he had her.

A lawyer of impossible cases is trying to
find the man with the rope before the cops
do. If she gets to him first, there’s a chance
she can get him back into the mental health
system. She finds more than she expects in
the pawnshop: a trove of lost Nez Perce treasure.

A retired newspaper photographer loves
the Nez Perce hoop dancer and has spent a
fortune on internet curses damning the cop
who shot him, and the rest of Lewiston, too.

When she learns the man with the rope might
know something, or have seen something,
about the last minutes of her love’s life, she,
too, sets out to find him.

Then there’s the paranoid hacker, wanna-
be writer, and available internet troll who
cherishes “the intimacy of insult.” He steals
the dash-cam video of the shooting and puts it
on YouTube, where it sets off a racial firestorm.

This is life in novelist Joan Burck’s Stripland,
the steep stretch of road that slices up the
valley from the Snake River to the Nez Perce reservation. This candy-store of Idaho
characters—alive with Burck’s eye for telling
detail—are all connected. But the real heroes
of this moving and beautiful first novel are
couple of tween girls and their wise and
pragmatic Nez Perce aunts. They lead this
whole grand crew back to the reservation,
to the waters of the Snake—and to some sort
of state of grace and healing.

Burck has brushed up against the story
of the shooting death of Randall Vernon
E llenwood with butterfly wings—and churned
up a storm. Burck spent decades as a
professor of English at Washington State
University on the Palouse Prairie—on Nez Perce
lands—just north of the Lewiston

At Washington State University, Press, PO Box 641950, Pullman, WA, 99164-9190 | 509-335-3118
Valley. She researched gun culture and the ways in which violence and trauma shape us. Now writing novels, Burbick is at once a poet telling stories, a dancer running interference so that the true and the good may pass, and a sculptor of mirrors, making us look at the magnetic fields that entwine us, human and nonhuman beings all.

—Brian Charles Clark

Ten Rowdy Ravens. Her creative work was featured in the in-depth study of raven ecology, *Dog Days, Raven Nights*, by John and Colleen Marzluff, as well as in public art across Alaska.

—Larry Clark

**Bury Me with My Fly Rod: The Unvarnished Truth About Fly Fishing**

DENNIS D. DAUBLE ’78 MS BIOL.

FISHHEAD PRESS: 2019

Dennis Dauble and his fly-fishing friends shun expensive gear and guided tours in favor of no-frills, self-planned excursions, which he details—often with humor, much of it self-deprecating—in his latest book.

This 214-page, softbound collection of short stories takes readers along on his fly-fishing trips from the South Fork of the Walla Walla and North Fork of the Umatilla to the Hardford Beach, along the Deschutes, Yakima, and Snohomish rivers, and beyond—ending with a fly-fishing trip to Scotland.

Dauble—a former fisheries scientist who also teaches fish ecology, biology, and management at WSU Tri-Cities—remembers like he’s talking with an old friend, a long-time fishing buddy. His forthright writing style makes every fish you ever caught.

—Adriana Janovich

**Dream Flights on Arctic Nights**

ILLUSTRATED BY EVON ZERBETZ ’82 FOOD SCI., WRITTEN BY BROOKE HARTMAN

ALASKA NORTHWEST BOOKS: 2019

The deep desire to fly inspires a child’s Alaskan dream in this lovely illustrated rhyming book. Animals across the Arctic landscape—wolves, ptarmigans, grizzlies, narwhals, salmon, otters, and eagles, among others—greet the dreamer on the nocturnal passage. The path leads to the northern lights, until sunrise when the raven guide takes the child home.

The simple rhymes match well with the linocut illustrations by Zerbetz, whose thick lines give dimension to colorful stars and beasts. The images seem to leap from the page, or fly in the case of seagulls, eagles, penguins, and ravens. A personal favorite: the two-page image of a floating mother and baby otter with their feast of clams.

Ketchikan-based artist Zerbetz has illustrated a number of children’s books, including *Blueberry Shoe, Little Red Snapping*...
Laura Moore '08 entered on a whim, beat the cowboys, and took home the top title.

The Washington State University equestrian team hosted the second-place finisher by 5 seconds, riding its recent mechanical bull riding "world championships."

The contest was inspired by the 1980 film Urban Cowboy. Moore, of Moscow, Idaho, grew up riding horses. "I signed up thinking I could probably win something. But I didn’t expect to win the whole thing, especially when I saw professional cowboys and rodeo clowns,” she says.

Fourth-place finisher Kyla Galvash ’16 rode for Moore at WSU, where Moore specializes in English-style riding.

Moore won the $4,000 grand prize, plus $500, getting to the top 10 and a commemorative belt buckle naming her the mechanical bull riding champion of the world. She’s planning to defend her title next year.

By Adriana Janovich

Texas A&M AgLife Research physiologist Ron Randel ('65 Ani. Sci.) has retired after 45 years of beef cattle research and teaching. Dennis Hepper ('69 MA, '71 PhD Econ.) has been named interim president of the State University of New York (SUNY) at Fredonia. Heper had served as president of SUNY Fredonia from 1997 until his retirement in 2012.

Valencia County Commissioner Mike Lietz ('69 Milng.) will retire at the end of the year, a year before his term is up. He was elected to four-year terms in 2005, 2009, 2013, and 2017.

Kevin Heimbigner ('71 Acc., '73 Ed.) has been inducted into the Washington State Baseball Coaches Hall of Fame.

Margie J. Kise ('71 Speech & Hearing Sci.) won the Selma Roberts Ottem Award at the Americans for the Arts 2019 Annual Convention in Minneapolis. Registered dietitian nutritionist Teri J. Raymond ('71 Home Econ.) is the 2019-2020 president of the Academy of Nutrition and Dietetics. William "Bill" Hyslop ('73 Poli. Sci.) has been sworn in as the U.S. Attorney for the Eastern District of Washington. He served the same role from 1991 to 1993 and served as president of the Washington State Bar Association from 2015 to 2016. Seahawks Vice President of Community Outreach Mike Flood ('74 Ed.) was inducted into the Pacific Northwest Football Hall of Fame.

Connie Krahaus ('74 PhD Ed.) has retired as senior vice president for university advancement from the University of Washington. From 1981 to 1999, she directed WSU's development efforts, including a comprehensive fundraising campaign which raised $275 million. Krahaus was named a WSU "Woman of the Year" in 1996, and received the WSU Alumni Achievement Award in 1997. She received the 2019 E. Burr Gibson Lifetime Achievement Award from the Council for Advancement and Support of Education. At The Miller & Gold Mines Ltd. has appointed RONALD ANDREWS ('77 Hort.) to its board of directors.

P5 Business Parks has elected STEPHEN W. WILSON ('79 Acc.) to its board of directors.

DAN PETERSON ('92 Hort.), was recently named vice president for development at the University of Washington. He also serves as president of the UW Foundation, leading UW’s $5 Billion campaign.

DAVE WILSON ('94 Hotel & Rest. Mgmt.), founder and owner of Destination Temecula Wine Tours and Experiences, recently celebrated the company's twenty-fifth anniversary.

Protagonist Therapeutics, Inc. has appointed DON KALKOFEN ('85 Acc.) as chief financial officer. Tim Nichols ('86 Ag., ’93 MCE, Addl Ed.) is the new dean of the Davidson Honors College at the University of Montana.

John Steach ('96 Chem. Eng., '20 MBA, '11 Ed.D) has been named CEO of the Center for Educational Effectiveness. Steach has 23 years of experience in public education.

Gregg Harper ('87 Hotel & Rest. Mgmt.) is the new general manager at the Woodruff Resort in Houston, Texas.

Kristin Bailey ('88 Ed.) is the new executive director for the Okanagan-Wenatchee National Forest.

Darin Belton ('88 Hort.) is the new business development director at Sterns Ag Services. He's also a board member of the Washington Apple Education Foundation, the Valley County Horticultural and Entomology Board, and the Zihl School District.

George G. Reed ('90 Comm., '91 Sport Mgmt.) is a leading inductee into the Regina Sports Hall of Fame. He competed in the Olympics, Pan American Games, Commonwealth Games, Commonwealth Games, and World Masters Games, and was a throw coach for athletes who represented Canada at various international events.

LINDA FINEMAN ('92 DVM) is the new CEO of the American College of Veterinary Internal Medicine.

DARK KIRK ('92 Crim. Just.) is Kelso’s new police chief. He began his 26-year career with the Kelso Police Department in 1993 and has served in nearly every law enforcement role in the department.

Angela Jones ('94 English, Ed.) is the new CEO at Washington STEM.

JESSI Communications has hired TARA DEAN ('90 Bus.) as director of business development.

Paul Barrett ('76 Sport Mgmt.) is the full-time assistant coach for throwing events at Chadron State College. He retired from coaching at the University of Wyoming in 2017 after 23 seasons as the throw coach and associate head coach, with stints at the University of Kentucky and the University of Colorado in between.

Moses Lake High School has hired LIZ BIGGER ('76 Bus.) as head girls’ soccer coach. She also employed as a trainer and K-9 handler and instructor with the Washington State Patrol. After 14 years in marketing at the Spokane County Fair and Expo Center, ERIN GURTLE ('97 Comm.) is now the director. Guttenplatsch's RICH HARTZELL ('71 Acc. Sci.), who worked at the fair for 15 years, spending it as director. Aqua

ANDREA LUOMA ('92 MA Comm., '99 PhD Higher Ed. Admin.) has been selected as top organizational consultant of the year by the International Association of Top Professionals.

CAPE POWERS ('95 Civ. Eng.) is the new director for the Peoria Arizona Water Services Department, where he oversees more than 90 employees and a $188 million budget.

Rhode Island Office of Revenue Analysis Chief PAUL DION ('94 PhD Econ.) has been named to the New England Public Policy Center advisory board.

Menlo Hotel Management has selected THERON GOLDMAN ('94 Hotel & Rest. Mgmt.) as vice president of operations, overseeing 16 hotels as well as two hotel projects in development.

Former South Kitsap High School teacher and coach DAVE GOODWIN ('94 History, Ed., Soc. St.) has returned to the school as its new principal.

By Adriana Janovich

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P5 Business Parks has elected STEPHEN W. WILSON ('79 Acc.) to its board of directors. Dan Peterson ('92 Hort.) was recently named vice president for development at the University of Washington. He also serves as president of the UW Foundation, leading UW’s $5 Billion campaign.

Dave Wilson ('94 Hotel & Rest. Mgmt.), founder and owner of Destination Temecula Wine Tours and Experiences, recently celebrated the company's twenty-fifth anniversary.

Protagonist Therapeutics, Inc. has appointed DON KALKOFEN ('85 Acc.) as chief financial officer. Tim Nichols ('86 Ag., ’93 MCE, Addl Ed.) is the new dean of the Davidson Honors College at the University of Montana.

John Steach ('96 Chem. Eng., '20 MBA, '11 Ed.D) has been named CEO of the Center for Educational Effectiveness. Steach has 23 years of experience in public education.

Gregg Harper ('87 Hotel & Rest. Mgmt.) is the new general manager at the Woodruff Resort in Houston, Texas.

Kristin Bailey ('88 Ed.) is the new executive director for the Okanagan-Wenatchee National Forest.

Darin Belton ('88 Hort.) is the new business development director at Sterns Ag Services. He's also a board member of the Washington Apple Education Foundation, the Valley County Horticultural and Entomology Board, and the Zihl School District.

George G. Reed ('90 Comm., '91 Sport Mgmt.) is a leading inductee into the Regina Sports Hall of Fame. He competed in the Olympics, Pan American Games, Commonwealth Games, Commonwealth Games, and World Masters Games, and was a throw coach for athletes who represented Canada at various international events.

LINDA FINEMAN ('92 DVM) is the new CEO of the American College of Veterinary Internal Medicine.

DARK KIRK ('92 Crim. Just.) is Kelso’s new police chief. He began his 26-year career with the Kelso Police Department in 1993 and has served in nearly every law enforcement role in the department.

Angela Jones ('94 English, Ed.) is the new CEO at Washington STEM.

JESSI Communications has hired TARA DEAN ('90 Bus.) as director of business development.

Paul Barrett ('76 Sport Mgmt.) is the full-time assistant coach for throwing events at Chadron State College. He retired from coaching at the University of Wyoming in 2017 after 23 seasons as the throw coach and associate head coach, with stints at the University of Kentucky and the University of Colorado in between.

Moses Lake High School has hired LIZ BIGGER ('76 Bus.) as head girls’ soccer coach. She also employed as a trainer and K-9 handler and instructor with the Washington State Patrol. After 14 years in marketing at the Spokane County Fair and Expo Center, ERIN GURTLE ('97 Comm.) is now the director. Guttenplatsch's RICH HARTZELL ('71 Acc. Sci.), who worked at the fair for 15 years, spending it as director. Aqua
**CLASSNOTES**

Mental appointed FENG HAN ('97 PhD Crop Sci.) as its vice president of Business and technology. 10 Regional director TANAMA POWERS ('79 Nursing) has joined Sunset Davis Hospital as chief nurse executive. ROGER AUGUSTEIGMAN ('97 Genetics & Cell Biol.), '04 MA, '99 PhD Crop Sci. is WSU's new R.A. Endowed Chair in barley Research and Education.

BILL WISENBE (’00 MA Comm.) won three Pacific Southwest Emmy Awards for his new documentary Shattered Dream, which examines water scarcity in the Pacific Southwest. His last film, Shadow of Drought: Southern California's Looming Water Crisis, was recently broadcast nationally on PBS.

Former WSU student and pricing designer. After an internship covering the Northwest team in Missoula, Montana. joined the Times-News in Idaho. He’s a member of the National Center for American Indian Enterprise Development’s 40 under 40 list for 2019. He's a member of the Confederated Tribes of Colville Indian Reservation and serves as executive director of the Yakutat Tlingit Tribe in Alaska. 

**In Memoriam**

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Steve Sylvester, associate professor of molecular biosciences, says he planted a rare corpse flower (Amorphophallus titanium, AKA titan arum) to attract visitors to WSU Vancouver.

Sylvester came to WSU Vancouver from WSU Pullman in 1996, the year the Salmon Creek campus opened. "I thought a corpse flower bloom would provide an opportunity for people to learn about us," he says.

After 17 years of cultivation, at 8:00 p.m. on July 15, under an almost-full waxing gibbous moon, TITAN VANCOU, as the plant is affectionately known, bloomed. The next day, some 12,000 people flocked to campus to get a look—and a whiff. The bloom of a corpse flower lasts just 24 to 48 hours and is infamous for its odor, comparable to that of a decomposing animal.

Sylvester was able to get pollen from a titan arum that bloomed in New York in June. In a few months, he hopes to have viable seeds he can share with other universities, conservancies, and botanical gardens.

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