IN THIS ISSUE
Cover / Back Page
Enlarge Quadrant
Return to Spread View
Previous / Next Page
Scroll Page
Web Links
URLS IN TEXT & ADS CLICKABLE
Click here to exit
or use ctrl/cmd-Q
Features
Closing the gap between dreaming of a home and finally holding a key to the front door.

Forty years ago Mount St. Helens blew. We revisit the memories. 30

Essay
What we don’t know is immense. Natural history can be a profound catalyst for understanding. 28

Upfront
Bringing medical knowledge and access to all corners of the state is at the core of WSU’s land-grant mission. 9

Below purple mountain majesties, farming the fruited, flooded plains. 11

Hearts in the darkness. If you accept their culture, they’ll really take you in. 17

COVER: A MORNING VIEW OF MOUNT ST. HELENS, JUNE 2017 (PHOTO DENIS & KIM HANG)
LEFT: "LIGHTS AT THE FOOT" OF MOUNT RAINIER (PHOTO ROGER REYES)
ESTABLISH A LAND LEGACY WITH WSU

Your land represents years of hard work and dedication. It’s more than acreage—it’s your heritage—and you want it to endure. Establishing a land legacy at WSU is a well-planned charitable gift that provides long-term tangible benefits to you and others. When you donate land to WSU, it stays with WSU, and you secure a lasting resource for research, scholarships, and outreach.

Your property is managed by the Land Legacy Council, an organization of farmers, ranchers, timber experts, and agribusiness leaders.

For a fact sheet on ways to support WSU through gifts of real estate, including establishing a land legacy, please visit foundation.wsu.edu/farm.
**A woman's place**

When I started my career at WSU in the fall of 1969, I knew I wanted to be a biologist. My all-girl high school had an excellent science program. I spent the summer of ’69 working at the WSU Extension Center in Puyallup raising house flies and counting bark beetles in entomology.

My assigned advisor was in the zoology department. Apparently, he was pretty famous. His first question to me was, “Are you going into this professionally, or do you plan to get married?” Although I was a pretty timid 18-year-old, I stared at him and found the presence of mind to say, “I didn’t think they were mutually exclusive.”

He did steer me into good classes on what I look back now as an insanely difficult schedule. Midway through the semester, I found a new advisor, Dr. Elizabeth Hall. She was one of the few female professors in the sciences and, for some reason, microbiology was the only science where almost 50 percent of the students were women. I graduated in 1973 in microbiology, went on to work for Weyerhaeuser in R&D, was recruited to Nalco Chemical R&D (12 patents), and then started my consulting company controlling complex industrial microbial issues in paper mills all over the globe.

Yes, I did get married and have two daughters, two grandsons, and I continue to slay slime (biofilms).

Thank you, Dr. Hall.

**LINDA (BLAU) ROBERTSON, ’69**

**BACTERIO. AND PUBLIC HEALTH**

**More Neill Hall memories**

Reading Cathy Higgins’ letter in the Spring 2020 Talkback brought back a flood of memories from my time living in Neill Hall. Mine was a much earlier period than hers; in fact, we opened up a brand new Neill in February 1957. When I arrived at WSU in the fall of 1955, I was placed in Esquire Hall, one of the “cardboard castles” (actually plywood) built to accommodate the surge of returning WWII vets. These old dorms had a high turnover rate; half the freshmen had flunked out by the end of my first semester. Many of the survivors had our own room, which we could connect with others by knocking out the closet panels.

Esquire even had its own radio station (KRAP, the little brown spot on your dial) using the fire warning wiring as an antenna. Things were pretty loose in Esquire. At the start of the second semester in ’57, Esquire (North) Hall moved into Neill, while Pioneer (West) Hall moved into Kruegel and McAllister.

Neill Hallers had a strong sense of pride in their dorm, and there was even considerable competition between the respective floors. I remember Neill’s choir coming in second campus-wide, as did one of our homecoming floats. Although we were (GD) Independents, for the more active members, it was kind of like being in a fraternity. The only difference was that you didn’t have to participate, and we also had our share of less active types.

**BILL BUCHAN, ’60 CHEM. ENG.**

You can read Bill’s full letter at magazine.wsu.edu/extra/May-2020-talkback

**COVID-19—WSU’s actions**

The rapid spread of the novel coronavirus and COVID-19 disrupted the lives of students, faculty, and staff at Washington State University, just as it did for people all over the world. Classes moved online for the last part of the spring 2020 semester, University operations adapted, and many measures were taken to protect the health of WSU communities.

For more information about WSU’s response and proactive efforts to prevent COVID-19, visit wsu.edu/covid-19

**COVID-19 information**

WSU encourages all of the Cougar nation to stay safe and help contain the spread of COVID-19.

The websites below can keep you informed about the pandemic and preventing infection:

- Centers for Disease Control and Prevention: cdc.gov/coronavirus

We do our part so he can do his. He performs life-saving surgeries. We protect the supply of electric power to that room. Together we power the future. Learn more at salinc.com/support.
The State of healing

BY KATE LEBO

In years past when District Nurse Becky Droter (’94 Nursing) needed to research complex medical issues that affected her Colville School District students, she’d call the Spokane Educational School District to talk with nurses there. They were helpful but finding resources that fit the particular needs of her rural community remained difficult.

Droter’s students face different challenges than students in urban and suburban places. To start, distance poses a formidable barrier to health care access. If a Colville student needs to see a specialist, they must drive ninety minutes (“on dry roads,” Droter notes) to Spokane or six hours to Seattle. Then there’s the shortage of doctors and nurses that’s endemic to rural Eastern Washington. “We don’t have a pediatrician in our community,” Droter says. “This creates problems for our kids getting access to care and helping our families understand the importance of seeing a specialist for special needs. And by special needs, I mean something as common as asthma.”

Just last week I spent a bunch of time on HEALWA looking up articles on ‘Do Not Resuscitate’ orders because I have a student I have that order for,” Droter says. “In a small school we’re all completely invested in the 360-degree well-being of our kids. The idea that a student might not go home at the end of the day doesn’t sit well. I really needed HEALWA for looking at best practices and how things are handled from an ethical and cultural perspective elsewhere.”

The small size of her community requires Droter to educate everyone from volunteer emergency responders to the school board. But Colville’s small size also makes that possible: as a rural nurse, Droter can nurture close relationships with all stakeholders. Grounding her efforts in authoritative evidence she found through HEALWA’s website—no more need to call Spokane—helps her educate everyone she works with. In Washington state, equity of access to care may still be a challenge, but thanks to HEALWA, equity of access to evidence-based medical information is already here.

Kate Lebo is the HEALWA outreach coordinator for Eastern Washington, based out of WSU Health Sciences Spokane.

Going to BAT in rural Washington

BY BRIAN CHARLES CLARK

When the Carpenter Road fire burned 64,000 acres in rural northeast Washington, the crew fighting the fire was without internet. In order to understand how the fire was moving and how to best position their firefighting resources, they had to drive GIS maps on removable media an hour from the county office out to the fire camp.

“When the fire ended, we said, ‘We’ve got to fix this,’” says Debra Hansen, director of Washington State University Extension in Kittitas County.

Fortunately, when it comes to research, Droter’s needs are covered by HEALWA, Washington’s digital library for health care practitioners. Through HEALWA.org, Droter can find authoritative clinical research on the conditions and issues that impact her students. She uses that evidence-based information to improve how the district safeguards student health.

For example, thanks to Droter’s efforts, the Colville School District was one of the first districts in the state to make Narcan available at schools. Like many communities nationwide, Colville is no stranger to the opioid crisis. Droter set out to research how other school districts create policies around having life-saving medicine on hand in case of emergency. Through HEALWA she discovered there wasn’t an example in Washington for her to follow; further searching in HEALWA’s online library yielded resources that helped her make the case to her school board to write a new policy.

The legislature created HEALWA in 2007 to support evidence-based practice in health care. Access to the library of online resources is tied to professional licensure—all nurses, doctors, and 25 other professions licensed in Washington can use HEALWA’s library to find full-text articles, point-of-care references, and patient resources in multiple languages. “But Colville’s small size also makes that possible: as a rural nurse, Droter can nurture close relationships with all stakeholders.”

HEALWA helps her educate everyone from volunteer emergency responders to the school board. But Colville’s small size also makes that possible: as a rural nurse, Droter can nurture close relationships with all stakeholders. Grounding her efforts in authoritative evidence she found through HEALWA’s website—no more need to call Spokane—helps her educate everyone she works with. In Washington state, equity of access to care may still be a challenge, but thanks to HEALWA, equity of access to evidence-based medical information is already here.

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Great floods from simple sources

Stevens County. “So we created the Broadband Action Team, the BAT concept, and have been going gangbusters ever since. We need broadband for health care, education, businesses, jobs—we’re way beyond cat videos.”

Development of broadband infrastructure has been slow. As Hansen says, “Big internet providers don’t care about us. There’s no business case to bring broadband to 16 people per square mile.”

“It took 50 years to certify the nation,” Microsoft president Brad Smith wrote in a 2018 blog post. “The millions of Americans waiting for broadband don’t have the luxury of time.”

It’s not just a matter of bringing infrastructure to rural America, Hansen says. Many people also need training in using email, smart devices, and the internet. “Our library district and economic development council are very involved in our BAT. They offer classes in technology use and solve tech problems at the library.”

Hansen describes a scene at the library in Coville where residents had a brief window of opportunity to sign up for heating bill assistance. “There were 100 people at the library, she estimates, “trying to set up email accounts and log into the assistance site on a first-come, first-served basis—and then the system crashed. It was heartbreaking.”

Monica Babine, a senior associate with WSU’s Program for Digital Initiatives, says that “what we’re doing is looking at ways WSU’s resources can be an anchor for communities.” Fiber into Extension offices, libraries, and health care centers with capacity beyond what that building needs can be tapped “to open the doors for others to come in.”

The power of the BAT is that it brings together constituents with local knowledge. “Local is important,” Babine says. “Because, one, it helps identify gaps in infrastructure; two, it helps ensure we don’t overbuild; and three, when you look at the folks involved in Debra’s team, it’s health care, schools, librarians, economic development council members, and emergency responders. So having those people at the table ensures that we build the infrastructure where it’s going to be used. And, four, those folks at the table are the ones who are helping provide the digital skills training.”

“And having all those folks at the table,” adds Hansen, “allows them to share resources, so discussions that start with broadband infrastructure branch out to economic development and much more.”

Including, perhaps, a robust telemedicine infrastructure that would, in times of health care crises such as COVID-19, enable doctors and patients to work together without risk of cross-contamination.

At home on the range

BY LARRY CLARK

Washington State University Eaton S. Floyd College of Medicine and partners are launching Range Health, a nonprofit academic health network designed to bring health care to Washington’s rural and underserved areas.

Last October, they also unveiled the William A. Crosetto Mobile Health Care Unit, the network’s first traveling health clinic. Intended as a training ground for future doctors and health care providers while delivering needed care around the state, Range Health will focus on communities where health care is limited. The mobile unit—named for Othello cattle rancher and philanthropist Bill Crosetto—will travel to those communities to provide comprehensive primary care, urgent care procedures, and preventive screening for conditions such as diabetes, cholesterol, pregnancy, STDs, asthma, and more.

From the Tigris and Euphrates, to the Mississippi and the Yangtze, floodplains are great places to farm. The soil is generally fertile due to silt deposition by rivers, and the land is flat. Floodplains support rich biodiversity, too, and the ones in the Pacific Northwest have long been the hunting and fishing grounds of Native Americans. But as development spreads, floodplains are often paved over and land-based productivity is lost.

For Jordan Jobe, that’s all part of the challenge of advocating for agriculture in the Puyallup watershed. Based at Washington State University’s Puyallup Research and Extension Center, she works with a wide range of local partners to maximize multiple benefits from the rich promise of the Puyallup River and other local floodplains.

Jobe is the manager of Farming in the Floodplain Project that seeks to mitigate flood risk, restore habitat, increase the number of fish returning to streams, and, she says, “to keep agriculture viable, because we value local food and we value that use of the land.”

One of the biggest challenges for Jobe and her partners is drainage and getting water off the land in time to plant crops. Part of the problem in the Puyallup watershed is need for canary grass. “As far growing, difficult to eradicate invasive species,” Jobe says. “You can plant riparian buffers that shade out need canary grass, or you can spray it with limited success, but if it’s growing in a ditch

and gets moved without being removed, it creates a big pile of mud that traps water.”

Maintaining a balance between development and agricultural and habitat needs is challenging. But there are some good signs that think that viable farms should be part of the picture for the future. Well-managed farms can improve water quality. As Jobe says, farms can be part of fish habitat restoration. “When you compare farms with runoff from impervious surfaces like roads and parking lots, fish do better next to farms.”

Farms also sequesters carbon and provide other ecosystem services such as healthy soils.

Jobe’s efforts at building community-based consensus around local land use also inspire her to look for ways to bring about a much larger, region-wide collaboration.

“I think people in the Puget Sound region who are involved in the areas of agriculture, conservation, habitat restoration, and more need to have better information regarding what to expect from climate change. Precipitation changes, sea level rise, saltwater intrusion, groundwater level rising—there are so many potential impacts from climate change and we need to know a lot more to support agricultural resilience regionally.”

“We all value agriculture,” she adds, “so we need to support resilience now, because in 50 years it’s going to look very different. We need to be prepared to continue producing food for a region that is developing and going to be experiencing stress from climate change.”
For more than 50 years, she wouldn’t talk about what happened during the war. As a teenage operative in the Dutch Resistance, Carla Olman Peperzak helped hide approximately 40 Jews.

“Tried to forget, but I couldn’t forget, and so I didn’t,” says Peperzak, now 96 and the 2020 Washington State Person of the Year. “These experiences showed me how fragile life is, but also the opposite—how people can live through it.”

By the time she met Raymond “Ray” Sun, an associate professor of history at Washington State University in Pullman, she had already dedicated the rest of her life to telling her story. Sun first read about Peperzak’s Underground work five years ago in The Spokane-Discourse and arranged for her to speak to his World War II history class. Now he’s working on weaving her wartime narrative into a manuscript that explores the history of Dutch Jews as well as gender roles—particularly, women’s—during World War II.

In the meantime, he has a chapter about Peperzak—tentatively titled “Hiding in Plain Sight: Gender, Faith, and the Conflicted Legacies of a Dutch Resister”—due for this spring for a forthcoming compilation organized by the Finkler Institute of Holocaust Research at Ben Zvi University with the Fisch Breda World Organization.

“Her generation is disappearing very, very rapidly,” Sun says. “You try to forget. You try to go on with life.”

She broke her silence after her granddaughter asked her to speak at her school. Since then, she’s shared her story from Seattle to Tacoma to Pullman, and points in between. She’s also finished a memoir, Keys of My Life, available on Amazon.

Washington legislature’s Resolution #623 honors her “as a selfless and brave hero, who saved the lives of many and is now using her experiences to speak to new generations and educate all about our history and the human capacity to care for others while facing unimaginably difficult challenges.”

But, she says, “I don’t consider myself a hero. I could help, so I helped. I did what I could do.”

“I flirted with them. I’m not a flirt normally, but I flirted with them. I was the right age. And it got me out of some sticky situations.”

Peperzak’s uncle had already been captured when she learned her aunt and five of her cousins would be passing through Amsterdam’s Centraal Station on their way to Westerbork. Fewer than 5 percent of the people who were held at the Nazi detention center—about 5,200 of some 107,000 detainees, the majority of whom were Dutch Jews—survived. Most were gassed upon arrival at concentration camps throughout Europe.

Peperzak found their train car and asked her aunt if she could take the youngest. She carried him off the train and was holding him when German soldiers stopped her. She was wearing her German nurse’s uniform and carrying her stolen medical identity card. In German, she explained the child was ill and needed to get to the hospital. They let her have her leave. But she never saw her aunt, uncle, and other four cousins again.

“Her story really got me into looking at the people who rescued or helped Jews.”

Peperzak’s father owned a clothing and fur factory one canal from Prinsengracht, where Otto Frank had the warehouse with the Secret Annex. Of the eight who hid there for more than two years, Peperzak visited “once or twice.” She was lucky to have been there, she says, “for bringing in a Jewish person.”

Her father managed to procure paperwork identifying his wife and two daughters as Jewish. “I know it cost him a lot of money,” says Peperzak, who didn’t tell her parents or sister about her Resistance work. “I got a new ID. I didn’t have to wear the star, and that gave me so much more freedom. I was grateful. I wanted to help people.”

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BY reaction to the Alar scare with regulator on red delicious apples in the 1980s,” Felsot says. “It was a crisis of confidence in chips. I think the chefs making them for their kids were so reluctant to do it that the industry perceived there was a problem.”

The scare grew into what is generally considered an overblown nightmare that eventually put many Washington apple growers out of business. As a result, the legislature mandated the creation of the lab.

In a move meant to temper public fears, part of Felsot’s new job entailed the translation and communication of scientific research for his Extension program. In clear and understandable terms, he explains the toxic risks associated with pesticide use.

“Though he no longer works in the laboratory, Felsot continues to carry a heavy teaching load on both the Pullman and Tri-Cities campuses. He also covers the Extension pesticide safety program, where one of his most popular talks concerns lawsuits surrounding survivor use of the herbicide Roundup.”

Last November, Felsot’s exuberant teaching style culminated in the Distinguished Achievement Award in Teaching from the Entomological Society of America.

“That was a real honor for me because I’m one of the few tenured professors who, at this point in my career, has most recently been offered a teaching appointment,” he says. “I love teaching—like investigating the new data and putting it into an story for people.”

Felsot came to WSU in 1993 to study agronomic residues in the environment, and during his tenure, has watched the campus evolve from a small upper-division-only school to a full-four-year college that is now experiencing rapid growth as a research institution.

His first assignment at the newly created Food and Environmental Quality Lab involved investigating a local case of herbicide contamination.

“At the time I was started as a reaction to the Alar scare with apples in the 1980s,” Felsot says. “Producers were using the growth regulator on red delicious apples to help even their picking. Then, concerns were raised that residues from Alar could be carcinogenic.”

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TRI-CITIES

For 27 years, Allan Felsot has been the Washington State University Tri-Cities audience with tales of pesticide toxicity. Today, however, he is preparing to step into a quest that is not only involving but on his eating habits as well.

“Grains, it’s what I keep eating at night. I think the chefs making them for their kids were so reluctant to do it that the industry perceived there was a problem.”

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VANCOUVER

for sounds to get from the air around us to our brains, it passes through a kind of tube, the cochlea. As the sound vibrations tickle tiny cilia sticking out of sensory cells. Once stimulated, the hair cells pass information that daily, kind of a sensory cell that can be damaged in a variety of ways. Continued exposure to loud noise, certainly. That’s why Coffin, who is married to a drummer with a chemical structure which has verified that when patients reported not hearing as well, Coutin says. “Hearing loss is never tested during a physical exam. We already know that a former version of that drug prevents hearing loss in animal models,” Coffin says. “But I’m also able to get first-hand experience of what it could look like to work with the elderly population.”

Her visits are part of the service-learning component of her capstone project in the Department of Speech and Hearing Sciences at the Elson S. Floyd College of Medicine. Service is a key part of WSU presence in Spokane since the establishment of the nursing program 50 years ago. WSU Health Sciences—SPOKANE—houses the College of Nursing, the medical college, and College of Pharmacy and Pharmaceutical Sciences—established a new Office of Community Engagement & Service Learning in 2014 to provide increased opportunities for students to get involved in the community—and benefit from hands-on experience in their prospective fields.

One number one service area is a health outreach, which is educational or more clinical-based projects. Jagannath Sandhu, a doctoral pharmacy student, volunteers at Spokane Public Library, sharing information about side effects of over-the-counter pharmaceuticals. "It's our duty to work within our community to make it better," he says.

Students also participate in Spokane’s M.D. Day Unity Rally and March, pack food at Second Harvest, cook meals at Ronald McDonald House, and provide free immunizations clinics and health screenings at schools, health fair, and homeless shelters—among other projects. Jagannath Sandhu, a doctoral pharmacy student, volunteers at Spokane Public Library, sharing information about side effects of over-the-counter pharmaceuticals. "It's our duty to work within our community to make it better," he says.

COUGS in the Community brings together students from across campus through activities such as immunizations or access to hands-on experience in their prospective fields. Jagannath Sandhu, a doctoral pharmacy student, volunteers at Spokane Public Library, sharing information about side effects of over-the-counter pharmaceuticals. "It's our duty to work within our community to make it better," he says.
Sniffing out patterns

BY BRIAN CHARLES CLARK

Dogs and humans have been inseparable for many millennia. Dogs eat, sleep, play, and work with us in relationships so intimate that we call them people, family members, and, as novelist Spencer Quinn puts it, members of “a nation within a nation.”

Or so it would seem to your typical American dog owner.

In fact, says Washington State University anthropology graduate student Jaime Chambers, “the ways we interact with dogs are extremely varied” once you start looking at the relationship across cultures.

To look at the dog-human relationship in a global context, Chambers is delving into anthropology graduate student Jaime Chambers, “the ways we interact with dogs are extremely varied” once you start looking at the relationship across cultures.

To look at the dog-human relationship in a global context, Chambers is delving into the “Human Relations Area Files,” a Yale University-based ethnographic database. Searchable by keywords, Chambers is sniffing for patterns across 186 cultures.

So far, she’s uncovered “over 8,000 paragraphs of dog-related content, including myths, examples of dogs being interacted with, dogs in ceremonies.”

Chambers has been curious about the variety of human-dog relationships for years. For Americans, she says, “dogs are companions, child surrogates.” But as a Peace Corps volunteer in Malawi, she saw something different. There, “dogs” are shown affection, but there’s more distance, and there’s a greater level of risk, because of rabies.

From the Area Files, she’s discovered that “play is uncommon, maybe a couple dozen appearances.” But “is it actually uncommon or is play just rarely noted by the ethnographer?”

That’s the big caveat about studying dogs through the lens of human cultures. “Anthropology is the study of people, so in the ethnographies, when dogs are mentioned, it’s almost as an aside. If a dog serves an obvious utilitarian role, if it’s a very visible part of the people’s economy, an anthropologist is more likely to mention it, as in Siberia, for sledding, hunting, and food.”

Although her analysis is just beginning, patterns are emerging. “Hunting, not surprisingly, pops up a lot in the data.”

“1. I think scavenging is also very common. Either descriptions of dogs rolling about and getting their own food, rather than being provisioned by humans, or humans having to take measures against their dogs taking the humans’ food.”

Another is personhood, “this idea that you don’t have to be a human to be a person.”

Among the Konso of Ethiopia, for example, it is taboo to buy or sell dogs because of their personhood, while a Toraja myth from Sulawesi states that dogs are equal to humans because they descended from a human ancestor.

While filling a gap in scholarship is important, Chambers’ dogged exploration of this ancient relationship is a real treat for the rest of us, too. *

Boersma says it was the study of elaborate male color traits that led to Darwin’s theory of sexual selection. The theory, however, does not translate well to females.

“As scientists, we’ve been so male-oriented over the years—so chauvinistic,” says Schwabl with a smile. The expert in physiology devotes much of his research to the study of female avian reproduction and behavior.

He and Boersma decided to investigate whether or not female fairywrens’ variation was tied to testosterone levels, a hormone present in both sexes. This was not an easy task to carry out in a largely undeveloped country.

“I was a bit guarded my first time in New Guinea—the economy is poor, there are few jobs, and you can’t buy much there,” Boersma says. “It takes a lot of preparation. You need to anticipate your needs for 3–5 months, especially your research equipment.”

“1. But once I get into the rhythms of life there, it’s great,” he says. “There’s not much cell signal in our research areas, so we spend a lot of time having conversations with the local people and becoming part of the community.”

In order to study the birds, Boersma had to make arrangements with the local landowners. He also hired and trained people to assist with his research and gave community presentations on conservation.

“One of our biggest challenges is just getting to the field sites,” he says. “There are only a couple roads and there’s no running water or electricity.”

Along the way, Boersma learned about the local culture, including witchcraft and cannibalism. One day, he happened to jog through a historical battlefield where 100 years ago, rival tribes lined up to throw poisoned spears at each other. Per tradition, any warrior hit by the spear had to submit to being dragged off for dinner. It was considered dishonorable to run away, he says.

Boersma also undertook a challenging field expedition to Fergusson Island.

“It’s a few hours travel by small boat and the sea is really tough in August,” he says. “Then, local criminals discovered a cache of American World War II weapons and began patrolling the ocean area we planned to cross. They would steal dinges and tell the owners to jump and swim for shore.”

Luckily, my friend’s extended family was respected by the top pirates, so they helped escort us across the rough seas—we almost flipped from massive waves but we made it.”

Once safely back at WSU, Boersma determined that indeed, elevated testosterone levels are responsible for the female fairywrens’ developing white wing patches. In turn, those females with flashy wing patches defend their territory more aggressively than do unadorned females. It’s a piece of information that cements his dissertation and adds to Darwin’s theory.

But Boersma’s not done yet. He hopes to someday return to his friends in Papua New Guinea.

“Early on, I wanted to provide some sustainable long-term opportunities for the local people to study biology, so they can benefit from their natural resources without having to sell or lease their land to palm oil or logging companies,” he says. “I really want to build a research station—to stay committed for decades, until they can carry it on themselves.”

Rindescent little fairywrens drew doctoral student Jordan Boersma to the grasslands of Papua New Guinea, but it was the unexpected generosity of the people that captured the researcher’s heart.

“I’ve traveled all over Asia and never experienced this level of hospitality. If you accept their culture, they’ll really take you in and look after you,” he says.

Hubert Schwabl, professor in the Washington State University School of Biological Sciences, says Boersma is one of the rare students who is able to do field work under difficult tropical conditions.

“Jordan has worked in Australia and Burma and is now part of WSU’s collaborative ornithology project with Cornell and Tulane Universities.”

Boersma, who joined the project in 2015, says white-shouldered fairywrens are good models for mate selection studies. The sparkly birds, found only in Papua New Guinea, are easy to observe as they hop around in the grass looking for insects.

“We’re studying this particular bird as the females within this single species show variation in ornamentation,” he says. “A lot of female birds are colorful but it’s rare to see substantial variation in one species. The males are the same across their range but the females vary.”
New coach

BY B J WOLCOTT

THEY CALL NICK ROLOVICH A PLAYER’S COACH. Sitting in his office looking out on Martin Stadium, the head coach of the Washington State University football team considers the designation bestowed by his assistants. “I care about my players very much,” he says. “I’m a people’s coach. I like to see people have success in life, and if I can, I try to help.”

Willingness to help others runs in the family. You’d be hard pressed at a Rolovich family gathering to find someone who wasn’t a firefighter or law enforcement officer.

After being benched during his senior season at the University of Hawaii, Rolovich made plans to take the San Francisco Firefighter’s exam. He planned to drive down the day after the Rainbow Warriors played the University of Nevada. Rolovich thought his days in football were over.

He didn’t make the exam. The evening of September 11, 2001, caused the game between Hawaii and Nevada to be delayed.

Next thing he knew, the starter was injured and he was once again leading the Rainbow Warriors offense. He finished his senior season 2-1 as a starter. Rolovich saved his best for the last game of the season: a 45 routing of the twelfth-ranked BYU Cougars in which he threw a senior season-high of 360 yards and eight touchdown passes.

In the last game of the season: a 45 routing of the twelfth-ranked BYU Cougars in which he threw a senior season-high of 360 yards and eight touchdown passes.

Rolovich also takes all challenges in Portuguese horseshoes, a lawn game similar to cornhole where players score points by tossing washers into holes of differing sizes on a small-lipped board, like his handheld set from Maui.

At first glance, Pullman and Key West seem to have little in common. But Rolovich sees the relatively isolated locations as similar.

“What I learned living on an island is that everyone is reliant on each other,” he says. “You may not know the guy on the clock who is unloading your milk, but he is doing that so I can buy milk for my family.”

Reliance breeds strong community ties, something Rolovich hopes his players can do, along with class or football responsibilities.

Craig Stutzmann, WSU’s co-offensive coordinator and quarterbacks coach, remembers Rolovich making sure leftover team meals were donated during the time as Hawaii’s head coach. Stutzmann caught passes from Rolovich for two seasons.

“Everyone asks for a word that describes Nick, and what I say is versatile,” Stutzmann says. “He is different in a good way. He’s humble, he likes to have fun, he’s not afraid of putting himself out there and laughing at himself.”

Rolovich has won War Zone loyalty with his deft use of social media, and during gatherings. A request on Twitter for the best Cruz bar in Seattle netted 20 odd recommendations, and his packed bars on back-to-back nights. He seems while recalling a Marco Polo chicken thigh left unswallowed the second night because of the demand on his attention from WSU fans.

Rolovich learned to be comfortable with living authentically from one of his best coaching friends, Mike Leach. The pair have spent hours talking about football, their life philosophies, and the topics that pique their curiosity.

A few years ago while attending a coach’s conference in Charlotte, North Carolina, Rolovich decided to pay his friend in Key West a visit. Rolovich’s wife, Analea Donovan, advised her husband to reach out to Leach beforehand.

Rolovich didn’t, hoping to maintain as much of the surprise as possible.

Upon arriving in Key West, he texted Leach. No answer. So Rolovich took in the sights. He visited some of Leach’s favorite haunts, but no one had seen him recently. A call to Leach also went unanswered. Like the mythical Sasquatch he’s often discussed, Leach couldn’t be tracked down.

That evening, as Rolovich was prepping to call it a night, Leach texted back. He was on his way to a moose with his wife, but could meet up after. The pair spent eight hours on a historical trip through Key West, visiting lighthouses and other favorite sites.

Casual fans of WSU football will notice similarities between Rolovich’s and Leach’s teams. Expect lots of passing, and lots of scoring. It’ll be an up-tempo attack, Rolovich says, marked by tactics that are sure to divide old school football diehards.

“We’re going to be very aggressive on both sides,” Rolovich says. “Punters are fine, I just hate giving the ball up.”

The goal is 35 points a game, with hundreds of yards both in the air and on the ground. It’s an attack that, much like Leach’s Air Raid, seeks to take advantage of a defenseman by overwhelming them with potential downfield threats.

Rolovich has installed a countdown clock for the Apple Cup because economists short time in Pullman, fans have impressed upon him the importance of that game.

“They call Nick Rolovich incredible,” he says. “It’s not just, ‘Hey I like Cougar football,’ it’s a real, deep affection for the team, and for winning.”

Rolling Stone-Blood on the Field. Copyright © 2003 by David Halberstam. All rights reserved. Reprinted by permission of Mariner Books, a division of Houghton Mifflin Harcourt Publishing Company. Permission to reproduce granted for educational use only.
IN
They like six to eight hours of sunlight per day and prefer well-drained, fertile soil that stays between 65 to 70 degrees. “They don’t like to grow where feet are sticky,” says Burlingame, who grows most of her pepper plants in her greenhouse.

“Our summers are short,” she explains. “And she really enjoys jalapeño peppers. She also likes to infuse tequila with jalapeños.” The longer you leave them in there, the hotter it will be,” she notes. “It doesn’t take very long—just a couple of hours—and it makes great margaritas. It just adds a little kick to your distillery.”

Of course, some like it hot. And others like it even hotter. The Scoville scale—named for Wilbur L. Scoville’s 1912 test—measures the concentration of capsaicin, the chemical compound that produces piquancy sensations in people. The more capsaicin, the hotter the pepper. The Carolina Reaper, for example, averages just over 1.5 million Scoville Heat Units (SHU). By comparison, habaneros—considered fiery by most palates—range from 100,000 to 350,000, while jalapeños generally rank from 2,500 to 8,000. Red cayenne peppers typically register around 30,000 SHUs, while poblano falls in the 1,000 to 2,000 range.

Bell peppers, which don’t produce capsaicin, are perhaps most approachable—landing at the bottom of the scale with a score of zero. These sweet peppers are among the most well-known and commonly used members of the nightshade genus Capsicum.

Peppers come in a rainbow of colors—from green and yellow to orange, red, and even harder-to-find purple and chocolate-brown. Raw bell peppers of any color are crisp, refreshing, and a bit grassy in flavor. Red, the most ripened, is sweeter. Chop them up for a pop of color and crunch in salads, salsas, and guacamole. Because of their bony shape, they’re perfect for stuffing and roasting. They’re also great for grilling. (Think kabobs.)

Chilean peppers—spicier than bell peppers—still mild and a good choice for stuffing. Consider beans and rice, shredded meat, sweet corn, diced tomatoes and onions, and plenty of melted cheese. Dried poblanos, known as ancho peppers, pair with chocolate to make a sweet and spicy sauce that’s perfect on enchiladas. Piquant varieties—such as jalapeños and cayennnes—pair especially well with creamy, soft, mild cheeses, says John Haugen (’93 Civ. Eng.), manager of WSU Creamery. Its Hot Pepper flavor was already popular 30 years ago when he started working there as a student. The cheese features diced jalapeño in Viking cheese, which Haugen describes as “similar to Monterey jack.” But, he says, “They’re both more spicy, more interesting.”

And their requests led to Crimson Fire! (Yes, the explanation point is part of the name.) It’s here when we started developing it,” Haugen says, recalling, “There was a contest for naming it.” Since then, the award-winning cheese has become one of the creamery’s top sellers—along with classic Cougar Gold. Crimson Fire! features both jalapeño and cayenne peppers and remains the creamery’s only reduced-fat cheese, offering a third less fat than regular Viking cheese.

If it’s still not hot enough, there’s an aged Ghost Pepper cheese made with either Cougar Gold or Smoky Cheddar—depending on availability—alongside its soft, mild cousin. Ihrem 고객 정보

“Most mammals aren’t willing to eat peppers,” Nesbitt says. “Humans seem to be the exception. We somehow find the pain pleasant.” A local variety, Betsy Burlingame’s go-to pepper recipes:

- “The longer you leave them in there, the hotter it will be.”
- “Don’t reach for water or beer. ‘The secret is oil,’ she says. ‘Capsaicin is an oily substance.”
- “Most mammals aren’t willing to eat peppers,” Nesbitt says. “Humans seem to be the exception. We somehow find the pain pleasant.”
- “In general, the smaller the pepper, the hotter it will be.”
- “It’s not water-soluble, but will dissolve in oils and fats. If you have cream cheese or bacon grease that will help dilute it.”
- “(Think jalapeño peppers.) A glass of milk or spoon of yogurt or ice cream will also help.”
- “Look for peppers that are bright, shiny, firm, and free from cuts and soft spots. They shouldn’t have any mottled areas or wrinkled skin, either. For less heat, Burlingame and Nesbitt recommend removing the seeds and white pith where most of the capsaicin is stored.”
- “Nesbitt enjoys jalapeños and gobs some red and purple peppers, but that’s where she draws the line. ‘If you ever try a Carolina Reaper,” she says, “call me up and tell me how it was.’”

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PHOTO ROBERT
The lament is laced with confusion and angst. “I’ve got a decent job. Why can’t I afford to buy a house? Or even rent a nice apartment?”

It’s not an isolated complaint. From the Seattle-Tacoma area to Spokane, the Palouse, and other cities across Washington state, the demand for affordable housing has risen to the breaking point. According to a recent report by Urban Growth, a Washington D.C., nonprofit research firm, the Evergreen state logged a shortfall of 225,600 homes between 2000 and 2015—eighth worst in the nation for housing underproduction.

Indeed, housing for low- and middle-income families is in short supply in many areas of the United States. Add that to rising construction costs, stagnant wages, and a complex set of other factors, and America is facing its highest population of cost-burdened and homeless citizens since the Great Depression.

Cost-burdened means having to spend more than 30 percent of family income on housing, with subsequent difficulty affording food, clothing, transportation, child care, and medical care. Severely burdened households dish out more than 50 percent of income on rent.

Seattle has some of the highest rates of cost burden in the nation according to The Harvard Joint Center for Housing Studies’ 2018 State of the Nation’s Housing Report. More than a third of Seattle families with incomes under $75,000 struggle to pay the rent. It’s a number surprisingly similar to sparsely populated Whitman County, where the Palouse Regional Housing Assessment estimates 37 percent of area residents are cost-burdened.

Though cost burden can lead to homelessness, today’s housing crisis is also about low- and middle-income citizens holding down two or three jobs and still not being able to make ends meet. It’s about teachers, firefighters, and full-time staff at Washington State University priced out of finding a safe, comfortable, and secure house—or even apartment—of their own.

The housing crisis is fundamentally a crisis of affordability, which, after many years in the making, has grown to the point that it threatens middle class stability. The solutions, unfortunately, are extremely complex and difficult to implement. The best estimates are it will likely take decades to produce enough homes to meet projected needs.

Ryan Smith, however, doesn’t want to wait that long. As director of the WSU School of Design and Construction in the Voiland College of Engineering and Architecture, he is boldly taking steps to tackle the affordable housing problem. Working with a diverse team of faculty researchers, students, and community partners, Smith is reshaping our vision of housing with solutions ranging from exciting modular construction concepts to high-efficiency Habitat for Humanity homes.

The story begins last November at an all-night hack-a-thon.

It was 5 o’clock and already dark. A few stubborn leaves rattled in the wind outside the entrance to Carpenter Hall on the WSU Pullman campus. Inside the classy old architecture building, the lights were bright, and corridors filled with the excited voices of nearly 100 students who gave up their Friday night to partake in WSU’s first Hack-A-House competition. Smith organized the event with the help of Matthew Melcher, associate professor of architecture. It was sponsored by Ivory Innovations, a housing affordability incubator at the University of Utah. The center was started by Ivory Homes, Utah’s largest development firm.

“Hack-a-thons are traditionally idea competitions or ‘pitches’ where people get together to hack a problem,” says Smith. “In this case, Ivory Innovations had the idea to do a 24-hour competitive sprint centered on solutions to affordable housing.”

Ivory’s first competition was held at the University of Utah in 2018 and focused on solutions for the Salt Lake City area. Smith, previously a professor at Utah, was asked to take part. The event was so successful, Ivory decided to expand to other universities in 2019, including WSU last November.

For Pullman’s hack-a-thon, Smith invited graduate and undergraduate students from both WSU and the University of Idaho to submit ideas for innovative housing solutions in the Palouse area.

“We put them into teams of 4–5 students,” Smith recalls. “Each team was assigned their own private room to brainstorm and create a slide presentation. We provided food, coffee, and snacks, and also had speakers, including Jennifer Wallace from Palouse Habitat for Humanity, who helped frame the problem.

“The next day, the students made three-minute business pitches which were judged by a panel of local judges,” he says. Tim thousand dollars was awarded in prizes including $5,000 to the overall winner—a team of WSU graduate architecture students who proposed building modular housing on Palouse farmland that is too steep to cultivate.

Coleman Coddington, and teammates Eriek Nelson, Gabi Hernandez, and Jake Monroe designed a ‘housing unit that could be prefabricated and replicated to cut down on cost. The units could potentially be stacked and would fit right next to each other,’ Coddington explains. “We inserted these units on adjacent farmland over the top, giving farmers more useful land than they had before. The owners of the units would rent their roof...
The MODX program included a visit to Katera’s cross-laminated mass timber factory in Spokane Valley. There were also talks by Seattle architects and industry leaders. Smith says that goal is to introduce local builders to offsite modular construction, including ways to manage the industry’s inherent challenges.

“Modular construction is a really good solution for affordable housing because it is fast and cost-controlled,” he says. “If you can buy in bulk, you can potentially get the cost to come down.”

Smith says offsite construction is defined as any project that uses elements built in a factory and then brought into and installed on the job site. There are two types of offsite construction and the first is called panelization.

“Instead of framing a house with sticks—2x4s or 2x6s—we’re making panels and then bringing those to the job site,” he says. “These can range from open panels to those enhanced with sheetrock and insulation, pre-nail-studded walls, or pre-wired.”

The second type is modular. “Here, the factory builds three dimensional boxes that when stacked like Legos on the job site make up the entirety of the house,” Smith says. “Those boxes usually contain one unit and can be completed up to 60 to 90 percent in the factory.”

Theoretically, offsite construction delivers a higher level of quality control and consistency than can be achieved by building a home at the job site. Using the same labor force to build unit after unit, the crews are consistently well-skilled and efficient.

As for cost savings, Smith says they are still trying to calculate exact numbers, but a recent study was revealing. His team analyzed 17 modular projects and reported an 11 percent cost savings on average. The greater finding, however, was that projects were completed 42 percent faster.

“That’s a big thing for construction,” says Smith. “Finishing sooner means you get to recoup money faster. So, even if the project goes over budget, they get a schedule savings.”

Though the national market for modular homes is still in the early stages, Smith says likely be seeing more of them in the near future.

“I think modular is still seen as a risky proposition because it’s unknown,” he says. “But I don’t see a way to build the amount of housing we need in this country in the time we have without using more productive and faster methods to deliver it.”

Kooistra and the Housing Development Consortium recently interviewed an offsite construction task force, which is testing five modular pilot projects in the Seattle area. Smith is also on the team and hopes to publish the course as a how-to guide to help other builders successfully incorporate modular techniques into their existing housing projects.

The sooner the better for Kooistra, who says King County is suffering a shortfall of about $56,000 affordable homes.

In the big city now, the housing crisis can be traced to the 2008 Great Recession when, after years of artificially inflated home prices, low lending practices, and subprime mortgages, the housing bubble collapsed in stunning fashion, causing millions of Americans to lose jobs and default on home loans.

“Going into the recession, we had a surplus of single-family homes because it was all based on speculation,” says Smith. “When the recession hit, builders stopped producing product until about 2012. But we still had population growth to the point where there’s a lot of pent-up demand.

Then, coming out of the recession, builders were catching up. Their strategies ranged from fundamental changes to the design of a home market,” he says. “What we’re seeing now is that the pace of the market has increased so the number of new houses is growing again.

Incomes haven’t risen commensurately with rent hikes,” he says. “It’s a problem that extends statewide, including rural areas. For a lot of people, the economic revenue coming into the household just doesn’t meet the high cost of living anymore.

On top of that, the construction industry is experiencing a shortage of workers, which drives up subcontractor and subcontractor costs. A couple years ago, we were at least 300 carpenters a day short in Seattle. Seattle already claims the nation’s third highest homeless population with about 12,000 individuals seeking shelter on any given night in King County.

That means at least 1,000 for Spokane County.

“We’ve got our work cut out for us,” Kooistra says. “People are getting physically displaced in our metro areas. There is also cultural displacement—people of color are disproportionately impacted.

“The harsh reality is solutions are not that easy to come by. We’re going to have to hunker down over the next decade and work together if we’re going to have any meaningful impact.”

A recent study looked specifically at the effects on older adults. WSU’s Metropolitan Extension in Everett joined forces with King County and the City of Seattle Aging and Disability Services to assess the area’s projected needs for senior housing.

The 2018 report, “Moving Toward Age-Friendly Housing in King County,” found that the number of older adults household heads or households who rent are expected to significantly increase in King County. Half of senior household heads or households who rent are already cost-burdened, as are 40 percent of those with a mortgage.

“The challenge of finding places to live for a diverse aging population who are on a fixed income, who may have health or mobility issues, is going to be a significant factor of what we have to deal with as a community,” says Martha Aitken, Metropolitan Center assistant director.

The study team, which included Season Hoad, assistant professor at the WSU Division of Governmental Studies and Services, and Cory Bolkan, associate professor in human development at WSU Vancouver, identified targeted solutions for aging in place and equity, especially for the older LGBTQ+ population.

Their strategies ranged from updating land use policies to allow cottage clusters and accessory dwelling units to increasing funding for home delivery services. They also recommended building senior housing units near established services to provide for daily needs, socialization, and transportation.

Similar challenges are playing out in downtown Pullman. The 2019 Palouse Regional Housing Assessment found housing expenses in Pullman are 44 percent higher than the national average.

Smith says Pullman suffers from artificially inflated housing prices due to a concentration of high-salaried professionals working in a rural area. As a consequence of
lower-income families are forced to move to sparsely-occupied areas, which, in turn, displaces residents of other small towns—similar to what’s happening in Seattle.

And, while the Palouse has a high number of multi-family student apartment buildings, there is a significant shortage of single-family homes. It’s estimated that roughly 270 will need to be built every year for a decade to catch up.

In the meantime, the 2019 report proposes that Pullman and Moscow partner with outlying communities to set up rural housing transition zones. Other ideas are allowing tiny home neighborhoods and utilizing land trusts such as the Moscow Affordable Housing Trust.

Our typical mortgage is $500-600 per month and you get the entire house plus the benefit of home ownership, which can hopefully break the cycle of poverty by passing some wealth down to future generations,” Wallace says.

“Rick’s whole focus is to have something better for his wife Roberta, who has multiple sclerosis and depends on a wheelchair for mobility,” says Wallace. “Together, they’ve put in over 400 hours of sweat equity with Rick helping build the house while Roberta worked on newsletters.”

Rick, 55, a U.S. Army veteran and Moscow city employee, explains that their rented house in Troy, Idaho, has long narrow hallways and 1910 newspapers in the walls for insulation. “Roberta can’t get around with her wheelchair, so we set up a hospital bed in the living room and she lives there with no personal privacy,” he says.

Their new home was specifically built to be ADA accessible with 36-inch-wide doors throughout. There is a front-loading washing machine, and the kitchen has been modified with lower cabinets and a stronger floor. “Roberta’s so excited to be able to do her own laundry again,” Wallace says. “It's the little things that give you dignity—it’s nice to give that back to her.”

Rick says it truly is a fresh start. “You have no idea—our old place was so cold and expensive to heat. I’m not going to know what to do with myself.”

The Habitat project is just the kind of community involvement and affordable housing that Smith champions.

Now, thanks to Jessica Perone, faculty consultant for Palouse Habitat for Humanity and Engaged Engagement who negotiated a meeting between Smith and Wallace, WSU and University of Idaho students will get a chance to take part.

Smith says the School of Design and Construction and WSU’s Rural Communities Design Initiative have joined forces with Palouse Habitat for Humanity. Their first project will be helping with Habitat’s 2021 house to be built in Uniontown. Winning Hack-A-House team members Coddington and Nelson will be on hand to offer design expertise and install energy-efficient building materials. The partnership will also provide long-term opportunities for faculty research and energy use monitoring.

It’s one example of the small steps that, multiplied throughout the state and nation, are helping thousands of people close the gap between what they want and what they can afford. It’s an accessible growth pattern that Smith and Nelson hope will resonate in the Palouse region.
A natural understanding
BY STEPHANIE E. HAMPTON

Natural history played a central role in the sciences for centuries. Charles Darwin and Alfred Russel Wallace, among many others, were natural historians whose ideas not only changed the course of science, but of society as well. Thanks to their work, the concept of evolution drives thinking in biology but is also a metaphor for social change and economic development.

In the past century, though, what most people think of as natural history—museums, expeditions, taxonomy—has experienced a steep decline in research and education support. This decline runs parallel to a decline in the direct experience of nature. While both are signals with troubling implications for society and science, new technologies provide novel insights into organisms and ecosystems that were not previously available—and also create new opportunities for public involvement in natural history.

In 2014, my colleagues and I, in a paper in *Science*, defined natural history as “the observation and description of the natural world, with the study of organisms and their linkages to the environment being central.” While this definition is likely to satisfy everyone, what it does do is put an emphasis on natural history being multidisciplinary. It also emphasizes the idea that natural history is a holistic understanding of the environment. An interdisciplinary team of scientists verified what people of the Haida Nation have known for years. Younger Haida Gwaii heron hailing from older fish where spawning grounds are. That traditional knowledge has improved computer models of heron stocks, potentially improving fishery management.

I think revitalizing the study of natural history, not only among professional scientists in research universities but at all educational and societal levels, will bring such benefits to all of us.

I can hear an objection already: I live in the city, far from nature. But nothing could be closer to you than nature!

Nature is not confined to wild places—or, put another way, you can find wild places on your own person. Using an inexpensive smartphone microscope like the Diple, you can explore the microbiome of your belly button lint or your showerhead. Such activities are not only fun, engaging, and inspiring, they potentially add to the kinds of big data sets that professional researchers can use to improve fish for all concerned.

From sourdough to sauvignon, there’s plenty of wild in the kitchen too! Citizen scientists recently shared samples of sourdough starters and startled the professionals who, after sequencing microbial DNA in the dough, found an amazing diversity of microbes.

Using smartphones and social networks, apps like Seek, iNaturalist, and eBird empower dog walk, bird watchers, and kids in parks to record their observations, share them with others, and get a sense of what nature’s up to in their neighborhood, rural or urban. Some of that data is of high enough quality that researchers can use it to help make informed decisions about conservation—and the citizen scientists who collected it get kudos and the satisfaction of having helped make the world a better place.

All sorts of technology also enable citizen scientists to engage with nature. Drones can be used to capture photos and videos of changes in landscapes and develop 3D maps useful to fire managers, scientists, and policymakers. Camera traps and even simpler tools can be used to understand the dynamics of backyards, those overlooked sources of wonder and wilderness that few people actually study.

What we don’t know is immense, and there is plenty for all of us to do. We need to learn the basics of natural history because it contributes to our ability to assess the changes our planetary systems are undergoing. A resilient future requires us to be able to make informed predictions about how and why things change. Our ability to build computational models that do precisely that is immense and steadily improving—but those models are worthless without basic natural history knowledge to inform them.

Stephanie E. Hampton is a professor of environmental sciences and director of the Center for Environmental Research, Education, and Outreach at Washington State University. She acknowledges and thanks her colleagues on the BioScience paper.

Take human health. About 75 percent of emerging infectious diseases share part of their life cycle with animals. Understanding the life cycles of host organisms is essential to managing outbreaks of disease. *Vibrio cholerae*, a great example. We now know that *V. cholerae* associates with zooplankton. That discovery led to a startlingly simple prevention technique: filtering polluted water through cloth. The cloth doesn’t trap individual cholera cells, but it does block the zooplankton they are attached to.

With food production, too, we can quickly see the benefits of natural history. Innovative techniques such as biological pest control (by breeding bugs to deter the bad ones) or multiplexed cropping (or likewise encourage the presence of good bugs) reduces reliance on pesticides (and thus decreases a farmer’s costs) and, simultaneously, increases biodiversity at the local level.

Overlooking the critical role played by local natural history knowledge and the traditional ecological knowledge of indigenous people can have negative consequences. Forest fire suppression in western North America, for example, based on practices that work in the hardwood forests of eastern North America and Germany, has proved very costly in homes, habitat, and money. So, too, with salmon habitat in northwestern North America. Tree debris in creeks and rivers provides habitat for fish, but hinders navigability. Removing debris improved navigability but now millions of dollars are spent to reintroduce such habitat-building debris.

Taking local natural history knowledge into account often inspires scientists’ efforts. The Alaskan Iñupiat’s traditional ecological knowledge of bowhead whales helped establish hunting quotas—knowledge that was later confirmed by researchers using a variety of technological methods. Even more recently, an interdisciplinary team of scientists verified what people of the Haida Nation have known for years. Younger Haida Gwaii heron hailing from older fish where spawning grounds are. That traditional knowledge has improved computer models of heron stocks, potentially improving fishery management.

You don’t have to be a specialist from the micro to the macro, from microscopic algae to entire forest ecosystems. Natural history is not confined to wild places—or, put another way, you can find wild places on your own person. Using an inexpensive smartphone microscope like the Diple, you can explore the microbiome of your belly button lint or your showerhead. Such activities are not only fun, engaging, and inspiring, they potentially add to the kinds of big data sets that professional researchers can use to improve fish for all concerned.

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Forty years ago, on a fateful day in May, a volcanic eruption unprecedented in modern times—etched itself on the memories of Washingtonians from Vancouver to Pullman.
studying for finals and doing everyday chores like laundry. Don A. Dillman, now a Regents Professor in sociology, was roller skating with his wife and two young children. Glenn Johnson, in his second semester of teaching broadcast journalism, decided to use the disaster—and time provided by canceled classes—as an opportunity to report the news.

The 8:32 a.m. eruption blew 1,314 feet off the 9,677-foot peak and marked the most devastating volcanic event in U.S. history. Fifty-seven people—including Johnston—were killed. So were some 7,000 big game animals, such as deer and elk, as well as countless fish and birds. The resulting avalanche of debris, mudflows, and flooding caused damage in 230 square miles. The lateral blast knocked down trees as though they were matchsticks, wiping out the landscape in an 8-mile radius.

Ash darkened the sky and fell heavily in Yakima, Ritzville, Spokane, Pullman—even Billings, Montana. Prevailing winds carried a fine dusting to the East Coast. Within two weeks, ash from Mount St. Helens circled the globe.

Swanson observed the billowing ash from a Forest Service plane. “As soon as we lifted off the ground I could see that the top of the volcano was missing,” he says. “I could see the giant plume. When we got closer, I could see the mud flows on the south side of the volcano, but it was obvious most of the activity was north. We couldn’t get around to see it. It was simply out of theIgnition.”

On Swanson agreed to fill in. The volcanologist would man the forward observation post for a few days, replacing a geologist who was traveling. But Swanson himself needed replacement—for that night. His colleague at the U.S. Geological Survey, David A. Johnston, agreed. But he wasn’t really looking forward to spending the night near the mountain. “He, more than the rest of us, probably had a better understanding of how explosively Mount St. Helens could erupt,” says Swanson (’60 Geol.).

Sunday morning, Swanson was at the U.S. Forest Service building in Vancouver—readying to drive to the mountain to monitor instruments began showing major activity. He ran to the radio, but there was no answer. By then, Swanson later learned, Johnston had already reported the eruption, transmitting the now famous lines from that fateful day: “Vancouver! Vancouver! This is it!”

Within an hour, Swanson was documenting the cataclysm from an airplane, flying in figure-eights on the south side of the volcano to film and take photos. On the other side of the state, students at WSU Pullman were
At top: Steaming water flows under the I-5 Toutle River bridge, eventually closing it. The SR 504 Saint Helens bridge also on the Toutle River was washed away by a lahar. At bottom: Keeping emergency vehicles running in Moses Lake required creative solutions. Wide World Photos

Monday morning, Pete Butkus (’70 Crim. Jus., ’85 MA Ed.), the 31-year-old newly elected mayor of Pullman, called a directors’ meeting. That evening, he appeared on a special broadcast on KWSU. “There were obviously health concerns,” he says. “We tried to keep people from breathing the stuff. You saw everything from masks to bandanas. A few students called me, and they had asthma. I remember kind of talking them through it: stay inside, wear a mask if you go outside, call your doctor. Basically, limit your exposure to this stuff.”

The newscast was anchored by Johnson, who became “the Voice of the Cougs,” announcing men’s basketball and football games for 40 years and counting. He’s now serving his fifth four-year term as mayor of Pullman. When classes were canceled midway through...
his 8:00 a.m. session, he encouraged his broadcast students to seize the day. “I said, ‘We’ve got an opportunity here.’” Johnson recalls. “This is a huge story. You’ve got all day off now, so let’s go do something. Let’s learn from this.” And they did, all day.

Johnson and his students started brainstorming angles and sources for interviews—health, agriculture, public safety. They also went outdoors to shoot B-roll of the campus and try to get interviews with people on the street. “That didn’t last long because—despite their precautions—the ash got into the camera’s telephoto zoom mechanism,” Johnson says. “We had to regroup. We couldn’t continue to shoot outside because of the ash. So we decided to bring the interviewees into the studio.” Then they went on-air live. I anchored, and we cut to the different interviews. Students—”including the late longtime KOMO 4 anchor Katie Guerriero (‘80 Comm.) and Dave Wike (‘80 Comm.)”—got a heck of an experience out of that.”

Track standout Karen (Blair) Troianello (‘80 Comm.) had recently run her last race as a Cougar and was looking forward to graduation when it started raining ash. “Since 1980, there’s always been a jar of ash on my bookshelf,” she reflects. “I watched as the ash lining various Eastern Washington highways became another layer of the earth, ready to tell a story to later generations of geologists.”

Today, nearly 100 barrels of Mount St. Helens ash are stacked in two kennels of the barn, which—Payne points out—used to be home to Morty, the moose featured in the opening credits of the CBS series Northern Exposure. Payne’s lived at Smoot Hill since 1994, when he was a research assistant at WSU. Today, nearly 100 barrels of Mount St. Helens ash are stacked in two kennels of the barn, which—Payne points out—used to be home to Morty, the moose featured in the opening credits of the CBS series Northern Exposure. Payne’s lived at Smoot Hill since 1994, when he was a research assistant at WSU.

One of his students, Stewart Higgins (‘80 M.S., ‘84 PhD Sci.), a now-retired senior scientific assistant, with WSU’s Center for Sustaining Agriculture and Natural Resources, collected samples in Yakima. Mack used some of the ash for research through the mid-1980s, particularly studying its effects on vegetation. The rest has been stored, tightly sealed, for safekeeping. Today, nearly 100 barrels of Mount St. Helens ash are stacked in two kennels of the barn, which—Payne points out—used to be home to Morty, the moose featured in the opening credits of the CBS series Northern Exposure.
Consider the butterfly
Krist Novoselic was a fan. He had read *Wintergreen* and wanted to meet the author, Robert Michael Pyle, one of America’s leading nature writers, who was nearly a neighbor.

Novoselic enjoyed several of his other titles, too—*Sky Time in Gray’s River*, *Where Bigfoot Walks*, *Nabokov’s Butterflies*—and introduced himself at a book-signing in Skamokawa, near both of their homes in southwest Washington. Not long later, they bumped into each other again.

“By coincidence,” Novoselic says, “I went to a Leo Kottke concert—he was playing in Longview, Washington—and Bob was there.” They ended up at Pyle’s home, sharing stories and beers and bonding over the common values of conservation and community as well as an affinity for rural America.

This was in the early aughts, right around the time Novoselic (’16 Soc. Sci.), bass guitarist of the iconic grunge band Nirvana, was getting involved with the Grange. Pyle was a longtime member, and the Yale-educated lepidopterist and legendary bassist continued to get to know each other through the grassroots, fraternal organization.

Planning a program for a Grange meeting led to the lengthy endeavor that became *Butterfly Launches from Spar Pole*. The album features poetry by Pyle and music by Novoselic, Ray Prestegard, who’s in the band Giants in the Trees with Novoselic, also contributes.

The project is a departure from the down-home Pacific Northwest groove-pop of Giants and the raw, distorted, power chords of guitar-heavy grunge. This folk, acoustic, spoken-word album celebrates the natural world. Climate change, natural selection, and evolution are all addressed. But the artists don’t aim to preach politics. Rather, Novoselic says, “It’s up to the listener to decide.”

The collaboration grew out of a radio show Novoselic used to host: “I’m really into the guitar player John Fahey,” Novoselic says. “I did this reading—basically, there were two turntables going—with some John Fahey on guitar and the other would be like Orson Welles reading the Gettysburg Address or somebody reading Walt Whitman. And it just had a nice feel.”

Pyle, a friend by then, heard the show, and it sparked an idea for the Grange program they were planning. “Bob gave me a call and said, ‘Why don’t you play some guitar and I’ll read some Walt Whitman?’” Novoselic says. “‘No, why don’t you come up with your own poetry and I’ll play some guitar?’ And I thought it’d be more interesting.”

The title comes from the anchor point in early logging setups in the American West. A spar tree, or spar pole—since replaced by portable steel yarders—was chosen for its strength and height. “The spar pole is a kind of symbol of a forest that’s in production for timber,” Pyle says. “It’s also a symbol for the

vanishing of the trees. I think it kind of cuts both ways. We’re not going to have forests if we don’t take care of them, but we’re not going to have jobs if we don’t take care of them. We want listeners to think about these things, and we want to present these ideas in a way that’s entertaining.”

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Managing our time. It’s our biggest resource, seemed like most people were, too. We were all what they call a non-traditional student, and it researching skills, critical thinking, writing, the skills I developed through WSU online work. I’m very confident and happy with and I just started studying. I’d be backstage like oh man, yeah. I submitted an application degree in your pajamas.’ And I was like whoa, in Deep River.

Nirvana formed in a Grange hall, at my house, at an old creamery—with whatever equipment we had around.” Novoselic says. “And, finally, last year we had enough material. We took it to Jack Endino—he produced Mudhoney and Nirvana—and he put it all together.” Novoselic, already a licensed pilot and published author—he’s 2004 book, Off Grange and Government—is part memoir, part political tract—a rock band formed as he was preparing to graduate.

 Presteguard, vocalist Jillian Ray, and drummer Eric Friend met at Skamokawa Grange, where he spent his high school years—only more remote. “Like the rain. Like big trees. Like space and quiet. And like Deep River because that’s what it offers. It’s really a luxury to live out here like this.” When he isn’t traveling for Nirvana reunion shows, Novoselic, who turns 55 in May, sticks close to home and the Grange. He’s master of Grays River Grange and owns the old creamery where Giants practices and parts of Spar Pole were recorded.

Spar Pole, Novoselic says, “is an invitation. I’ve always felt that good art invites you into its world, and that’s what we’re trying to do: capture the mind’s eye. Come inside. It’s really different. It’s not rock. It’s not hip hop. It’s not grunge. It’s not country. It’s not jazz. It’s just music. It’s the natural world—life down to the barest cell in terms of time and the environment and mortality. We’ve been here, and this is an invitation to the world we made with this work—the rest is open for interpretation.”

Stepping up her game

BY JOSH BARCOCK

As a young child, Sylvia Omulo, often one of the first picks on the playground, was a Kenyan form of dodgeball, using an improvised ball made of wet wadded-up paper stuffed into a sock.

When she missed her chance to attend the high school of her choice, she realized she would never make it to a university if she didn’t snatch her focus from fun to schoolwork. She also realized she loved biology. From there, science took over.

“I became fascinated with how the human body works,” Omulo says. “The reason you have a pulse is because your heart valves open at a certain pace—no other subject gives you that. Biology is very real.”

Fast forward 20 years later, Omulo (’17 PhD Immunology & Infectious Diseases) is an assistant professor in the Paul G. Allen School for Global Animal Health, specializing in antimicrobial resistance and infectious disease in her home country.

In partnership with WSU and the University of Nairobi, Omulo is leading a Centers for Disease Control and Prevention-funded antimicrobial resistance study. This research project explores the prevalence of, and relationships between, some of the World Health Organization’s priority antibiotic-resistant pathogens, including methicillin-resistant Staphylococcus aureus (MRSA), extended spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae, and Carbapenem-resistant Enterobacteriaceae (CRE).

The study, in its second year, builds on Omulo’s doctoral work and takes place in the communities of Kibera and Asembo as well as the hospitals that serve them. The research aims to provide insight into what drives antibiotic resistance in the African nation, such as sanitation practices, antibiotic use, and exposure to animals or health care facilities. The goal: to ensure people with bacterial infections have access to antibiotics that work when they need them most.

For Omulo, the research is personal. After high school, she suffered frequent bouts of tonsillitis. She had been accustomed to using a self-prescribed antibiotic for her recurrent infections: amoxicillin. But, on one occasion, the infection was so severe that her usual dose proved ineffective. Her uncle, a clinical officer, gave her an injectable antibiotic. This worked: Looking back, she says, that may be the first time she experienced antimicrobial resistance.

Omulo hopes her research will prevent children from enduring what she did, or worse. To that end, she sometimes struggles to turn science off. Her computer screen often glows into the early morning hours until she “gulps” herself into going to sleep, her upcoming workload often the only reason her head hits the pillow. “I really feel my work matters,” she says. “It impacts the life of people. I know even if I can make a small change, I will have done something for humanity.”

The work can be grueling. It involves looking for antimicrobial-resistant pathogens by culturing and analyzing hundreds of stool samples every week from urban and rural settings.

Omulo and her team have seen the devastating impacts of infectious diseases, especially inside the hospitals involved in the study.

“It’s hard when you see children who have their whole future ahead of them and know they may not live to see the next day,” Omulo says. Omulo, who hopes her work will serve as a critical component to solve the antibiotic resistance problem.

The says one major piece of that problem is no-one knows for certain how many people die from infections due to antimicrobial-resistant bacteria.

“Antimicrobial resistance is a silent killer,” Omulo says. “When patients die in a hospital, they just say someone was sick and died. The fact that antibiotics were unsuccessful against an infection doesn’t make it onto death certificates.”

Despite this, the World Health Organization recognizes antibiotic resistance as a threat to global health and estimates 10 million deaths worldwide by 2050 if no effective interventions are made.

Omulo says it was important for her to return to Kenya to improve public health in a global scale. “I want to contribute to science,” she says. “They say, ‘Leave the world better than you found it.’”

She hopes to leave a similar mark on her 20-member research team as well. “I want to impact them, so they become better people and scientists,” Omulo says. “It all goes back to the impact I want to leave.”

From covering the beat to on the beat

BY ADRIANA JANOVICH

Stephanie Schendel caught the journalism bug in college, spending two years on the staff of The Daily Evergreen and observing Pullman police officers as they responded to calls related to drunkenness, domestic disputes, overdoses—even a stabbing.

“it all maybe a half-dozen ride-alongs,” “said Schendel (12 Comm., Spanish). “They were very patient with me and answered all of my questions. It really impressed me. That was the beginning of it.

Her real-time reporting experiments, or ‘tweetalongs,’ were popular reads, and they helped launch her career—first as an award-winning crime reporter for the Carrolton Chronicle, then as a detective with the Bellevue Police Department.

The Chronicle opened during the spring she was finishing college, and the paper held the position for her until she graduated. “I really wanted to do cops and courts.”

She covered breaking news, criminal jus- tice, and emergencies such as flooding—and loved it. After a couple of months on the job, an arrest was made in one of the most noto- rious unsolved Lewis County murder cases. Schendel produced numerous stories—from arrest to trial. Her coverage helped her win the 2014 new journalist of the year award from the Washington chapter of the Society of Professional Journalists.

Being a reporter “helped me grow up a lot,” Schendel says. “I definitely enjoyed it and wouldn’t change that life experience and professional experience for anything. Every day was an adventure. And it helped improve my writing skills and my interviewing skills.”
But, after about two years at the small-town paper, she says, “I was outgrowing my job.” Schendel found herself more and more drawn to the other side of the police beat. “Being a patrol officer is a lot of fun. But police work is one of the few professions that’s more fun than being a reporter.”

Schendel was hired by the Bellevue Police Department in 2014. Following extensive background checks as well as written, oral, and physical tests. Next came the four-and-a-half-month police academy, followed by three months of field training. Schendel went on patrol alone for the first time in October 2015. “Y ou become a better cop by training on patrol alone for the first time,” she says. “You have to write reports. Y ou interact with people you normally wouldn’t. Y ou have to treat people fairly.”

A new terroir

BY ADRIANA JANOVICH

Nicole “Coco” Umiker started young, so young—in fact—that when she and her husband, Karl, began planting their first wine grapes on their family’s century-old Idaho farm she was only 21. She was still in college. But she had a love for biology, and biochemistry—when she convinced her grandfather to let them plant a quarter-acre of Merlot at his ranch. They were adrift on a raft of ice, and it was 11 degrees Fahrenheit—cold for the time of year but not as low as the sub-zero temperatures they regularly experienced during their two years of exploration and data collection, including a new record for fastest north. But their resupply ships never reached them. Rations were dwindling. And another winter at the top of the world—with no connection to the rest of it—was fast approaching. How long would they be able to ride this floe? Would they find the caches of food left by boats that had come before? Would they perish in the harsh polar climate?

Buddy Levy uses this dramatic moment—and its lifeline of food and hope—as the entry point to his latest offering, a gripping narrative of the ill-fated Lady Franklin Bay Expedition, its successes, and its setbacks. Levy tracks the howling winds and grinding ice. His writing—exciting, extensively researched, and poetic—helps readers feel as if they, too, are experiencing the long winters and harsh landscape, feeling the bone-chilling temperatures, and hearing the howling winds and grinding ice. His engaging account covers the depths of human suffering and lengths men will go to stay alive when they are largely unsupported from the elements, living in a largely collapsed tent, boiling leather, scavenginglichenes for some kind of sustenance and going mad from starvation, scurvy, exposure—or a combination—all for the sake of science.

—Adriana Janovich

NEW MEDIA

Labyrinth of Ice: The Triumphant and Tragic Greely Polar Expedition

BUDDY LEVY

ST. MARTIN’S PRESS: 2019

Lt. Adolphus W. Greely, commander of the Lady Franklin Bay Expedition, assessed the situation from the edge of the ice floe upon which he and his men were stranded.

“They were adrift on a raft of ice, and it was 13 degrees Fahrenheit—cold for the time of year but not as low as the sub-zero temperatures they regularly experienced during their two years of exploration and data collection, including a new record for fastest north. But their resupply ships never reached them. Rations were dwindling. And another winter at the top of the world—with no connection to the rest of it—was fast approaching. How long would they be able to ride this floe? Would they find the caches of food left by boats that had come before? Would they perish in the harsh polar climate?”

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Twenty-five men, mostly soldiers, started Greely’s expedition. They were dropped off in the summer of 1884 more than 1,000 miles north of the Arctic Circle and some 250 miles from the last known settlement. When no one came to collect them or drop off additional provisions as previously planned, Greely retreated south from the refuge of Fort Conger to seek reinforcements and try to connect with rescuers.

Levy balances their trials with the stories of ships that attempted to reach their camp as well as the work of Greely’s wife, Henrietta, who tended tirelessly to get the government to send another boat. He also includes historical photographs from the expedition, helpful reference maps, and a six-page bibliography.

Levy became interested in the expedition after learning about it during a trip to Greenland in 2003. But he had been fascinated by the Arctic ever since reading Jack London’s works as a boy growing up in Idaho. His Labyrinth of Ice is a haunting page-turner with present-day relevance. Greely and his crew went north as part of the first International Polar Year, a coordinated approach to explore the Arctic by a coalition of countries. There was the most northerly post. Not only did their observations help predict future expeditions, but the data they collected provide a baseline for today’s scientists studying climate change.

Levy, who’s taught writing at WSU for 31 years, spent two years working on this superbly told, action-packed story of survival. His writing—exciting, extensively researched, and poetic—helps readers feel as if they, too, are experiencing the long winters and harsh landscape, feeling the bone-chilling temperatures, and hearing the howling winds and grinding ice. His engaging account covers the depths of human suffering and lengths men will go to stay alive when they are largely unsupported from the elements, living in a largely collapsed tent, boiling leather, scavenging lichen for some kind of sustenance and going mad from starvation, scurvy, exposure—or a combination—all for the sake of science.

—Brian Clark Clark
Governor Booth Gardner, former state Sen.
editorial in community leaders as well as the press. One
lash from prominent politicians and com-
dramatic years.

The young agency, laden with controversy,
Seattle and the central Puget Sound region.

Wodnik was an agency insider with
front of a runaway locomotive,” says Paul
mended them. We were like throwing tracks out in

first learned of Tolme’s letters in 1983, then
years earlier locating and transcribing them. The introduction by Tacoma historian
Jerry V. Ramney provides additional context.

The Wodnik

William F. Tolme at Fort Nisqually:
Letters, 1850–1853
EDITED BY STEVE A. ANDERSON
WSU PRESS: 2019

Scottish-born William Tolme served as chief trader for the Hudson’s Bay Company’s
fur trading post Fort Nisqually, the first white
settlement on Puget Sound. Hand-written letters to and from Tolme—sometimes
written by canoe—present a British perspective on
the region in the early 1850s. Tolme State
Park near Olympia is named for him. So is
Tolme Peak in Mount Ranier National Park.
Steve Anderson, who managed the Fort
Nisqually Living History Museum at Point
Defiance Park in Tacoma from 1980 to 1990,

Ralph G. Yount

Ralph G. Yount has given hope to millions
of people who will never know his name.
During his 44-year career as a profes-
sor of chemistry and molecular biolo-
gies at WSU, Yount’s study of muscle function
advanced medical understanding of dis-
eases such as muscular dystrophy, ALS, and
myasthenia gravis.

His work focused on the way mus-
cles contract, specifically the relationship
between a muscle protein called myosin
and their ATP. The molecule involved in energy
delivery, it causes the muscle to relax.

Yount is currently professor emeritus in
chemistry. The Ralph G. Yount Distan-
ted Professorship in Sciences has been estab-
lished in his name.

Lights Up: A Collection of 20
Ridiculous Scenes for Young Actors
WRITTEN BY JENNIFER VICK
THEATRE ARTS

The round-up of short scenes for child
actors features characters such as Old Man
Kear, Macaroni One, and a time-traveling
teen, Evans. This acted reading for child-
ren’s theater programs in 2004, says young
actors prefer lively characters to heavy,
dramatic plots. He mantra: “Write characters,
and have fun.”

A Nadie le Importa el Cielo
Nocturno
MARIA ADARÉ ’78 UB. ARTS, ’79 ED.
2019

When someone decides to end a relationship, it’s often a difficult
decision. The slim volume of poems, in Spanish, explores feelings of lo-

The National Institutes of Health (NIH)
funded Yount’s work for 4 years without
interruption and awarded him a Merit grant
in 1986, the first year the grants were estab-
lished. This is one of the longest continued
funding projects at the NIH.

Yount is extraordinary achievements as
an educator and scientist have been recog-
nized throughout his career. In 2001, former
WSU President V. Lane Rawlins chose Yount
to be the first recipient of the Emeritus Faculty
Award, the University’s highest award for
faculty excellence over an extended period.

“Yount has put his heart and soul into
teaching, and is a superb colleague,” said
Rawlins. “He questions every decision, is a
tireless and brilliant researcher, loves to teach, and is a superb

when it came to teaching, Yount of-
ten went the extra mile to guide and
help pro.

When it came to teaching, Yount of-
ten went the extra mile to guide and
help students realize their goals. He
was also the first Edward R. Meyer
Distinguished Professor of Biochemistry
and Chemistry.

When it came to teaching, Yount of-
ten went the extra mile to guide and
help pro.

In 2012, he was awarded the prestigious
Nagoya Prize in History.

Pigott’s professional accomplishments and

work have earned royal titles in France, Belgium, Hungary, Italy,
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STEVE GLEASON, the former WSU football standout who started a charity to empower those living with ALS following his own 2013 diagnosis, recently received the highest honor the United States Congress can bestow on a civilian.

Gleason (’98 Bus.) received the CONGRESSIONAL GOLD MEDAL on January 15, 2020, in Washington, D.C.

His Team Gleason charity works to raise awareness about ALS, also known as Lou Gehrig’s disease, which causes the death of neurons controlling voluntary muscle movement. There is no known cure. So far, the foundation has provided nearly $10 million in technology, equipment, and other services to more than 15,000 people living with the disease. His own struggle with ALS is documented in the 2016 film simply titled Gleason.

In 2017, Gleason received WSU’s highest alumni honor with the Regents’ Distinguished Alumni Award.

Gleason helped WSU reach the Rose Bowl in 1998 and went on to play seven seasons in the NFL—all with the New Orleans Saints. His electrifying 2006 punt-blocking dive at the start of the Saints’ first game in the newly rebuilt Superdome boosted morale throughout the hurricane-ravaged city. Outside the stadium today, the play is immortalized in a 9-foot bronze statue called “Rebirth.”

BY ADRIANA JANOVICH

PHOTO ANNA M. HALE CENTER DARG

CLASSNOTES

BY ADRIANA JANOVICH

PHOTO ANNA M. HALE CENTER DARG

DOUGLAS K. BOHNI (’67 PhD Econ.) won the Albert Nelson Marquis Lifetime Achievement Award from Marquis Who’s Who. ° JIM HERMAN (’67 PhD Sci.) has retired after 35 years as the first executive director of the Washington State Housing Finance Commission. During his career, the commission helped more than 81,000 families buy their first homes and financed the development of more than 54,000 multifamily apartments statewide.

PATRICK TUCKER (’72 Ag. Econ.) is the founder of Water from Wine, a nonprofit winery with a tasting room in Leavenworth and mission of generating revenue to fund clean water and sanitation projects. ° DENNY HAYDEN (’73 Bus.) was inducted into the Mid-Columbia Agriculture Hall of Fame, winning the organization’s stewardship award.

DENNIS MUNDEN (’73 Ag.) was inducted into the Mid-Columbia Agriculture Hall of Fame, winning the organization’s Stewardship Award.

MIKE GALLAGHER (’80 Ag. Eng.) was recognized as an American Society of Heating, Refrigerating and Air-Conditioning Engineers Fellow. © SUSAN BLACKBURN (’81 Lib. Arts), chief executive of Providence St. Mary Medical Center, has joined the board of the Valley Walla YMCA.

AMY FREEMAN (’82 Const. Mgmt.) was awarded the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. She serves as director of the Penn State Millennium Scholars Program. © JAMES “JIM” H. WELCH (’82 M.A. Bus., Fin.) has been appointed chief financial officer at Cigna.

ROB RICE (’85 Const. Mgmt.) has built more than 3,000 homes in 43 different new home communities during a span of more than 30 years. He and his wife, Helena, live in Olympia with their two sons, Alex and Carson. © DIBIA YBARBA (’87 Hort.) was named “Cherry King” at the annual Cherry Institute of Northwest Cherry Growers. She serves on the board of the Washington Fruit Tree Research Commission, chairs the commissioner’s cherry committee, and serves on the Cherry Breeding Program Advisory Committee.

Rashesh Dube (’91 MS Comp., Sci.) has been named the chief technology officer at Cognet A/AP Infusion.

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**CLASS notes**

**HEY, COUGS! Get your WSU Plate.**

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**FRÉDDIK AMUNDSEN** (‘01 Bus.) is the new chief financial officer at TG3. He comes to the position after 16 years with the company, most recently as executive vice president and chief operating officer. **STEPHEN ZIEGLER** (‘03 Microbiol., ‘03 JD Poli. Sci.) recently founded the Center for Effective Regulatory Policy and Safe Access, a nonprofit research organization in Colorado that seeks to improve the way governments control drugs through research, education, and outreach.

**BRANDON DULY** (‘02 Civ. Eng.) vice president of GayF Adikson Construction in Renton, has been named one of ten ENR Northwest’s 2020 Top Young Professionals. **ALEX FRANCIS** (‘02 Hum.) is the new general manager of Radisson Blu Memphis Downtown. **Nitesh** has named KEN BREWER (‘93 Poli. Sci.) its chief revenue officer, overseeing the company’s global sales operations. **SCOTT DICKINSON** (‘79 Poli. Sci.) has been named principal managing broker for Coldwell Banker Bain’s South Snohomish offices. **JEFF PIERCE** (‘03 Bus., ‘13 MBA) is the new chief executive officer of WP Foley Financial. **MARIAN WICKERSHAM** (‘09 Ed.) is the new executive assistant for Hood River County OSU Extension Service and coordinator of its Master Gardeners Program. **CASEY PAYVEY** (‘04 Soc. Sci.) is the new vice president at Allbant, a Portland-based property and casualty insurance company.

**SAM HOLDEN** (‘06 Const. Mgmt.), a project executive with Skanska in Portland, has been named one of ten ENR Northwest’s 2020 Top Young Professionals. **Integrated Tax Services** has hired MEGAN DIXON (‘03 Hum.) as its new business manager. **TODD DOWNEY** (‘08 Dig. Tech. and Cull.), president and co-owner of Waterland Estate Sales, has joined the Berkshire Hathaway HomeServices Northwest Real Estate team in Buren.

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**CRAG DAHMER** (‘12 Poli. Sci.) has joined Holland & Hart’s corporate practice as an associate focusing on mergers and acquisitions, corporate governance, financing, and general business matters. **SATIVA S. RASMUSSEN** (‘12 Civ. Eng., Poli. Sci.) has joined the Seattle office of the international law firm Donovan & Whitney as a lawyer in the firm’s cannabis practice group. She’s also the chair-elect for the Cannabis Law Section of the Washington State Bar Association. She founded the Washington & Oregon Cannabis Law Group. She’s also the chair-elect for the Cannabis Law Section of the Washington State Bar Association.

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WE ARE PLEASED TO ANNOUNCE THE 2020 R. KIRK CAMPELL LIFETIME ACHIEVEMENT AWARD RECIPIENT

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James and Marilyn Hyde left an estate gift to Washington State University to help fund student researchers, like Megan Asche, doctoral candidate in entomology and ARCS scholar. Their gift doubled the number of high-quality entomology students and brought in expert researchers in pollinators, pests, and insect science.

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In the aftermath of the 1980 explosion of Mount St. Helens, Patricia Grieve Watkinson, then director of the Washington State University Museum of Art, organized a nationwide competition for artists to express their reactions to the eruption.

Titled “Living with the Volcano: The Artists of Mount St. Helens,” the exhibition traveled to about 20 venues in Washington, Idaho, Utah, Oregon, and Montana from 1983 to 1987. One of the artists represented was Linda Okazaki (’71 Fine Arts, ’75 MFA).

Watkinson wrote about the exhibition and Okazaki’s work:

As one would expect, it was the cataclysmic results of Mount St. Helens’ eruption—the uncontrollable power of nature and the unleashing of chaos—that affected many artists. In this chiefly pessimist view, nature is seen as indifferent, negative, destructive, fearful or awesome—yet not without moments of beauty. Humankind is an impotent and hapless sufferer, frequently unaware of its helplessness and lack of control.

Animals and birds also fell victim to the volcano. In Linda Okazaki’s watercolors Birds of a Feather Fall Together and Night Explosion, brightly colored finches, the embodiment of life, tumble dead from a bleak night sky onto the bare rock below. Mount St. Helens, the assumed instrument of death, puffs unheeding in the background.

—“Mount St. Helens: An Artistic Aftermath” (Art Journal, Fall 1984, p.260)

After teaching at the WSU Fine Arts department for seven years, Okazaki moved to Port Townsend in 1980, built a studio and house with her husband, Ray Weber, reared three children, and maintained a studio practice, which continues today. Her son Miles, then six years old, was also represented in the Mount St. Helens exhibition.