Fall22

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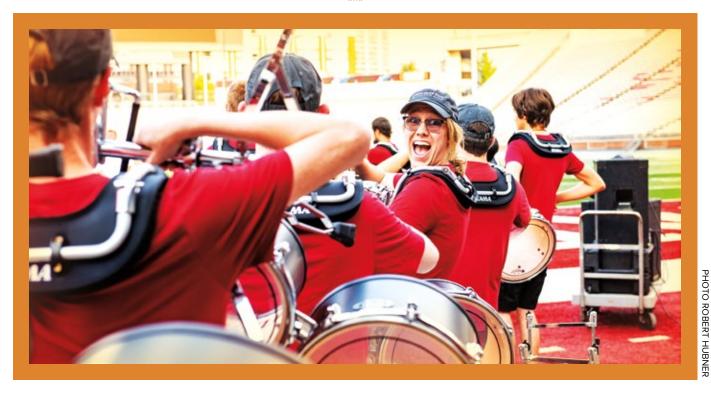
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Lindsey's Future

Did you know that Washington State University provides more than \$170 million in scholarships support each year?

Because of generous support from donors, WSU offers more than 700 scholarships university-wide.

And yet, there is even greater need.

Increased funding for scholarships would help many more students afford four years of college, with far less reliance on burdensome student loans.

Donating to scholarships is one of the most impactful ways to demonstrate the "Cougs help Cougs" spirit: Your investment in scholarships transforms the lives of students like Lindsey Luis, a junior at WSU Vancouver, majoring in social sciences and setting her sights on becoming a civil rights attorney.

Thanks to scholarships.

"I'm here because WSU helps first-generation students like myself navigate the challenges of applying, enrolling, and maintaining an academic program.

I'm here because the Vancouver campus allows me to remain connected to and supported by my family and community.

Above all, I'm here because your support empowers me to make my dreams a reality. My mind is free from financial worry, so I can focus on my studies and service.

My heart is full of gratitude for your support, which makes this all possible."

Lindsey Luis was the featured student speaker at the WSU Foundation's annual Recognition Gala, which honors donors who have achieved lifetime giving levels of \$500,000 or more. Use the QR code to watch Lindsey's remarks.







Make a gift to support scholarships: foundation.wsu.edu/scholarships











coug * starter

Student Driven, Funded Together

Since 2020, the CougStarter student crowdfunding program has connected generous Washington State University donors with enterprising student groups to provide **more than \$25,000** in funding.

These projects enrich the WSU student experience, create opportunities to give back to our communities, and encourage personal development. CougStarter allows the WSU family to personally invest in students' innovative spirit, creative problem-solving, and skill-building activities!

Learn about this year's projects: cougstarter.wsu.edu

- We would like to thank the generous donors from our CougStarter campaign last summer for supporting our emergency contraceptive drive! With your help, we were able to distribute over 140 free emergency contraceptives to students during WSU Welcome Week on the Pullman campus and provide resources for reproductive healthcare in Pullman in both English and Spanish.
 - Pharmacists for Reproductive Education and Sexual Health (PhRESH)
 2021 COUGSTARTER STUDENT GROUP
- Thank you to all of our donors who helped us raise \$1,081 for Kids' Science and Engineering Day! Your support will help us provide funding to other organizations who participate in KSED and give elementary students in the Palouse a good experience with STEM. Thank you once again!
 - WSU Society of Women Engineers
 2022 COUGSTARTER STUDENT GROUP



FIRSTWORDS

Happiness. What makes a Stoic happy? Preconceptions of Stoicism as emotionless and stark miss the deeper sense of well-being that Marcus Aurelius said "depends on the quality of your thoughts." It is happiness that comes from knowing what we can control and what matters most in our lives.

The many forms of happiness, and common threads between them, are explored in this issue's feature that queries Washington State University experts in philosophy, history, psychology, and more. From the joy of self-actualization to the fleeting pleasures of material items, the last couple of years in the pandemic have been a time for us to reflect on what makes us truly happy.

People have often found their bliss through the creative process. Making art in the physical world brings great satisfaction to WSU art professors Io Palmer and Harrison Higgs, as it does for many of us. Whether you're growing plants like a unique Latah squash or making graphic novels and movies like Rantz Hoseley, the sense of accomplishment lingers.

That's not to say that basic pleasures of food should be ignored. I'm one of the many people who love Cougar Gold, WSU honey, and the cornucopia of other delicious foods from Washington State.

Visits to Ferdinand's for ice cream were definitely a wonderful memory for many Cougs. We asked alumni, faculty, and others to send in fond remembrances of life at WSU, and this issue's lead story shares those happy times from our readers.

I connected with many of the stories of WSU life from my own time as a student and then staff member. One particular memory sticks out: a fine morning in early October of my first year, with the sun streaming into a Bryan Hall classroom during Philosophy 101 with professor Don Bishop. He made us think and grapple with new ideas. After class that day, I sat on the Holland Library lawn with friends and took in the blue sky.

I was first introduced to Aurelius in that class, and his quote remains meaningful: "Very little is needed to make a happy life; it is all within yourself, in your way of thinking."

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TALKBACK

Editor's note: The story in our last issue about Fish Fans—WSU's former synchronized swim club—brought about a wealth of cherished memories, some of which follow ...

What a delight, I actually cheered when I opened the summer edition of Washington State Magazine. I can fill you in for the early '40s ...

Spring of '44 we swam to the popular "swing era" music. Two members and I swam to the rhythm of "Deep Purple." Yes, we formed the circle as you pictured [see "Their place in history," WSM Our Story].

Spring of '45 we performed Peter Pan and Tinkerbell was my swim. (I could go the entire length of the pool underwater twisting like a torpedo!)



Spring of '46 we swam to the tunes of Snow White and the Seven Dwarfs. My part in the show was Snow White.



Fish Fans group shot detail of Jeanette Ott from the 1945 *Chinook* yearbook



Closing segment from the Fish Fans' Mother's Day weekend performance, May 1951

Because it was fun for us, the performances were good and always on Mother's Day weekend. We gave two performances and always had an appreciative audience.

Shows always closed with the whole membership swimming with lighted red candles to the tune of the WSU Fight Song and forming a big "W."

Thank you for your outstanding article and at 97 years old ... I still swim!

JEANETTE OTT BURFORD '47

SPEECH & HEARING SCI.

Enjoyed the recent issue. The mention of Sue Durrant in the article about the swim team brought back strong memories. My freshman year I took swimming, and Ms. Durrant took it upon herself to teach me, a shy farmgirl, not only swimming but more importantly that I should be proud of my height. Whenever she saw me slouching, she would grab the back straps of my suit and make me stand up straight. If I could, I would want to get this message to her: "Thank you for pushing me!!"

IRENE (TICHELAAR) SILVERMAN '68
POLI SCI.

The Sidelines article, "Fish Fans made waves," brought a huge smile to my face while reading it. I was a Fish Fan for three years, '75–'77, and I have so many cherished memories from those times. Yes, there were days I was so tired of always smelling of chlorinated water and having wet hair but it was all so worth it. We swimmers were allowed to be creative in our

choreography and costuming and we carried skills of organization, leadership, and teamwork into our adult lives.

In September 2007 I traveled to Pullman to receive my varsity letter award as part of the "Honoring the Legacy of Women in Athletics" event. My high school synchronized swimming instructor/coach was also there as she too had been a Fish Fan back in 1949. I also had the honor of traveling to Seattle to perform with teammates in the UW swim show. Another host of fond memories. Thank you so much for the nostalgia.

DEBBY TRAPP-ROEHM '77 KINESIO.



1975–76 Fish Fans officers — Row One:
Debby Trapp, Publicity; Jill Haughseth,
Treasurer. Row Two: Rebecca Ann Larsen,
Social Chairman; Kitsy Seely, Secretary; Cheryl
Meyer, President. From the 1976 Chinook

Congratulations to two outstanding WSU researchers on their election to the prestigious National Academy of Sciences.





What made you happy at WSU?

Washington State Magazine asked readers, alumni, faculty, and staff to share what or who or where made them happy at Washington State University. Here's what they had to say.

- Meeting my future husband in my very first class in 1956. It was English 108 in College Hall. Have now been married 63+ years, two kids, four grandsons, five great-grands. Go Cougs!
 - Sandra "Sandy" (Grant) Parkhill ('59 Home Ec.)
- Walking in the fields with the changing seasons at the Pullman campus!
 - Karen (Johnson) Lynch('70 Fine Arts)

The Conner Museum is my happy place. I grew up in Richland, and we didn't have any bears, or buffalo, or peacocks, or cougars, and I thought it was so cool to see them up close. It was the first place I visited after COVID restrictions were lifted, and I still spend many lunchtimes there. There's something about animals—even taxidermied ones. They look like they could be pets, but they've lived incredible lives in the

wild. Many of them were part of the Chicago World's Fair—that adds an extra coolness factor.

 Sarah Frame English ('94 Comm.,
 '95 Ed., '96 MEd), sustainer program manager, Northwest Public Radio

- I drove in from the Potlatch area for several years. I loved to watch the fields turning green in the late winter/early spring ... and the lambs!
 - Adele Kirkpatrick McCormick ('72 Speech & Hearing Sci.)
- Ferdinand's ice cream in the middle of winter ...
 - Helen Schaaf ('73 Ed.)
- Any and all classes taught by Dr. Ashby, Dr. Bobb, and Dr. Bennett. Loved special events like Casino Royale. Beasley, Bohler, Martin, and Bailey ... All sporting events. Socializing, I mean "studying," on the very social second floor in Holland Library. Lifetime friends made.
 - Bill Grantham ('78 Soc. Stu.)
- Sunny days were the best!
 Walking through campus and everyone greeting each other. Ice cream at Ferdinand's. Going to football and basketball games. Spending time in the basement of the Fine Arts building doing pottery. Glenn Terrell stopping by to talk when we were outside during class. Living on Orton 9 freshman year. The first snowfall when my roomie from California was so excited! And, of course, Rathskeller's in Moscow! All the friends!
 - Judy (Ruddy) Brown ('80 Fine Arts)



I had three happy places:

- 1. For studying, my very favorite was the fifth floor science library. I had so many great study sessions there with friends. It made the long, long hours go by faster than they really were.
- 2. For personal fitness, I loved the student weight room (though I can't remember exactly where that was, now). Lots of iron pumping with buds.
- 3. For recreation, nothing beat being in Martin Stadium on game day. As a frat pledge, I often had to stay overnight in line to get tickets. That added to the allure.

All these were great, great memories.

- Gregory Clark ('84 Chem.)
- I LOVED Week of Welcome. I lived in Stevens Hall all four years and it was fun getting to school early and planning activities for all the new residents and seeing my friends after summer break. It was just a feeling of freedom and fun before classes began.
 - Anna (Swartz) Burch ('96 Comm.)
- My favorite thing to do was to use the new Student Recreation Center when it first opened, then in the afternoon go take a bike ride to get a grabber from Ferdinand's.
 - Eric Nordstrom ('01 Civ. Eng.)
- Football, competing against other residence halls, serenading the sister hall of the hall I lived in (Stimson), the interfaith house (now gone), hall government. It's an endless list really.
 - Kevin Renner ('12 History)

upfront

Fourth-generation Lady Coug graduate. Me (BS food science), my mom (BS psychology), grandma (BA and MA education) and my great-grandmother (PhD romantic literature).

- Lauren Celmer ('16 Food Sci.)

A seat four rows back on the 50 (yard line) for my first home game.

- Kevin Madden ('18 Soc. Sci.)

Roller hockey on Monday and Wednesday night. Courtside at Friel Court. Sella's and CCDI. The best part is, my time as a Coug will never end. You don't have to be on campus to be a Coug. It's a lifetime of Crimson and Gray.

Mark Huddleston ('90 Busi.)

I experienced one of those perfect Pullman summer days while walking to campus in mid-July of 1990. That day, I would sign paperwork that officially made me a brand-new assistant professor of physics. The sky was painted in deep violet, an unfamiliar sight to an East Coaster like me. The still air had the sweet scent of nectar and grass. The sun's rays from high above radiated heat, which was whisked away by the dry air that streamed by as I walked.

Turning onto Stadium Way, I noticed small groups of students sunbathing, while others threw a frisbee. The Physical Sciences building, my new home, pierced the sky. The stillness around me, the scenery, and the anticipation of how my life would

unfold in this magical place lulled me into a trancelike state of bliss. At that moment, I knew that I would make Pullman and Washington State University my permanent home.

> - Mark G. Kuzyk, WSU Regents Professor of Physics

When I was an undergraduate at WSU, I was involved with our Hawai'i Club. I even got to cochair the twenty-fifth Mom's Weekend (now Family Weekend) lu'au, now known as their ho'ike. Now, as an alumna and staff member at WSU, I get to be a coadvisor for the group and will always have fond memories of their annual events. It's been fun getting to see the traditions continue and evolve over time! Go Cougs!

> - Hildegarde "Hilde" Velasco-Faga'autau ('12 Socio.)

Moments of great satisfaction: when it "clicks" in teaching and we make a collective breakthrough on a significant issue. Whether with freshmen or grad students, it never gets old, and you never know when it's going to happen. Alternatively, conversations with colleagues or students over coffee in the CUB. Ideas flow, and we connect as people over a nice drink. And, working out in the Rec Center. It's a place where I can forget all the intellectual stuff that occupies my mind and balance that by taking care of my personal fitness. There's a lot of life energy flowing there and it's good to be around a diverse crowd all working to be healthier, stronger people.

Place of tranquility: the WSU Veterans Memorial. It's quiet, beautiful, and meaningful to me as it commemorates

the WSU war dead from WWI to the present. I teach about the world wars and am leading a project to create a digital memorial of the WW2 war dead.

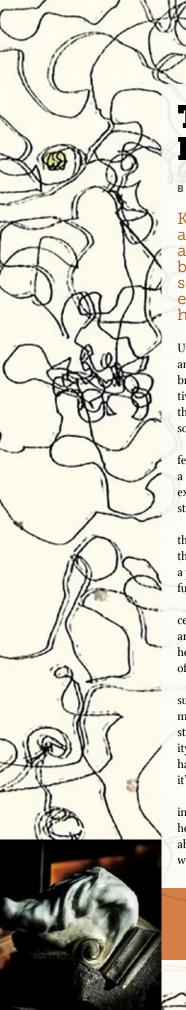
Moments of beauty: walking through the campus, there are moments of surprising beauty when I look at the light on the brickwork of the old buildings (Bryan Hall, Wilson-Short), or on the trees in early spring or when the leaves are changing color in the fall.

There is a moment of great emotion, although it's not "happy." It was on 9/11, and this was before people were getting all their news on their phones. The university set up big screens in the CUB, and I remember joining a group watching the news coverage. People were totally silent, except for a few who were quietly crying. We were all both united and isolated in our confusion and grief.

> - Ray Sun, associate professor of history, WSU

The first moment of well-being that came to mind is meeting up with my sweetie at the edge of Terrell Mall on a sunny afternoon. The next thing may be more interesting: The day after Barack Obama was elected, knowing WSU also had its first Black president, I felt like real social progress was occurring and the entire US was on track to become more just, whole, and peaceful. I wanted to highfive everybody on campus, especially President Elson Floyd. Third: Arriving late to work after a harried morning and finding a tiny flower that my sweetie had taped to my office door.

> - Adrian Aumen, assistant director of communications, WSU College of Arts and Sciences



The joy of handiwork

BY REBECCA PHILLIPS

Kurt Vonnegut often told audiences, "To practice any art, no matter how well or badly, is a way to make your soul grow. You will get an enormous reward. You will have created something."

It's a sentiment echoed in a 2017 Drexel University study which found that doodling and other forms of artmaking activate the brain's dopamine system which evokes positive emotions. Study participants also said they had more good ideas and could problem solve more easily after creative efforts.

For Washington State University professor of fine arts Io Palmer, making art is a richly rewarding and pleasurable way to express her feelings about society and the state of the world.

"I love the challenge of figuring out something creative," she says. "I love nothing more than being in a studio by myself working on a project. It really makes me feel I'm living a fulfilled life."

Palmer, who teaches classes ranging from ceramics and 3D materials to performance art, says she wants to create a space where her students can likewise experience the joy of making art as a fulfilling part of their lives.

"Everything is digital now with a flat 2D surface," she says. "Most of the students' information comes from the computer, so getting students to really focus on three dimensionality is a challenge. We often get students who have a very limited understanding of art as it's not taught in many high schools anymore.

"I think sculpture, drawing, and painting can help them clarify that line from your head to your hands," says Palmer. "Just being able to use your hands, these amazing tools we have, to manipulate materials and create

something from your mind, spirit, or heart is kind of extraordinary."

Long-time photographer and digital media artist Harrison Higgs agrees. During his childhood, he was fortunate to have spent many hours outdoors exploring the woods, rivers, and streams.

"My grandfather taught me how to work on my car and my father taught me how to work in the woodshop," says the associate professor and program lead for the Department of Fine Arts at WSU Vancouver. "Most students today don't have those experiences."

Like Palmer, Higgs says much of the experience they do have is mediated online. "They really haven't had the opportunity to develop their hand-building skills like measuring, planning out projects, and visualizing if it will fit together when assembled," he says. "It's a different way of working."

As an artist, Higgs finds natural congruences between photography and sculpture. His home studio is filled with a diverse assortment of materials and objects which he arranges for photo shoots. Over the years, he developed an interest in natural resource allocation and sustainability.

"The longer I practice art, the more I find myself gravitating toward things that get me off the computer and have me work with my hands," he says. "I find I need a balance and to use a different part of my body. On a basic level, it's a remedy to part of the modern condition—being in front of a computer too much."

Higgs helps his students gain some experience working with their hands through his sculpture and printmaking classes. "I think it's a kind of a materials and process literacy," he says.

"Through making, we can do things in a different way, can consider the world in a different way. It's a form of thinking and has a different set of rules and is much more open-ended. I'm convinced there is discovery, self-knowledge, and growth there too. It's been my experience that making is a good way to understand the world."

Top right: Chandeliers and Macramé by Io Palmer. At left: Sculpture by Harrison Higgs.

Background image: From Kurt Vonnegut Drawings by Nanette Vonnegut, Monacelli Press 2014

+ happiness in the eye of the beholder: magazine.wsu.edu/extra/art-appreciation





HUMANITARIAN CONCERT FEATURING UKRANIAN COMPOSERS IN THE TERRELL LIBRARY ATRIUM (COURTESY WSU NEWS)

Seeing a different **future**

ALYSEN BOSTON

It's hard enough preparing for finals and graduation during a normal semester.

After war broke out in Ukraine, Kate Maistrenko '22 continued going to class and rowing practice while her family and friends struggled to survive. The apartment she shared with her family in Kyiv was destroyed by shelling, as well as her parents' rowing camp. Her brothers are directly involved in the fighting, and some of her friends and peers have died trying to repel the Russian invasion.

"It's incredibly hard to process this every day, but I have to stay strong no matter what. I have to work and train because I know it helps me survive," Maistrenko says. "I keep

COURTESY KATE MAISTRENKO/LINKEDIN



my phone always near me in case my family or friends call me."

Maistrenko, who studied economic sciences and international business, was a recipient of the 2022 Presidential Leadership and the Cougar Athletics Leadership awards for her contributions to WSU Rowing and as a member of the Student Athlete Advisory Committee. She hopes to raise \$10,000 to support Ukrainian athletes training for world rowing events, among other fundraising efforts.

"I have to keep pushing and helping. Unity is the key to success," Maistrenko says. "Life is hard but it is also beautiful and short, so as long as I'm breathing, I will do my best."

It's impossible to truly understand what students like Maistrenko are going through, says Kate Hellmann, director of International Programs' International Student and Scholar Services, but that doesn't stop Hellmann and her team from offering support.

"They're dealing with something going on 6,000 miles away. They're just trying to be a student, but bombs are falling on their families," Hellmann says.

Hellmann's office provides guidance for Ukrainian students seeking to extend their visas or seek temporary protected status to remain in the United States after graduation. They also work with faculty to provide academic accommodation, and students can receive financial support through the WSU International Emergency Fund.

"Our goal is to provide a support net on all fronts: social, cultural, academic, immigration, and career services," Hellmann says.

"International students and scholars contribute to our research and directly to the state of Washington," she continues. "We want to get every student to the finish line for graduation, even if something going on abroad is uprooting their lives."

Anna Stowe, a Ukrainian national who moved to the United States 12 years ago, took time off from her job as a researcher in the Department of Crop and Soil Sciences when the conflict began.

She spent that time on the phone with her family, who live in Western Ukraine.

"My boss offered to change my work time to make it easier, but it's been months. We all need to learn how to live with it," Stowe says. "It's a huge global event you have no control over, but it also feels so personal.

"It feels so personal because Russian propaganda is attacking you as a person, as a



Ukrainian. It's been difficult to reconcile being both insignificant and personally targeted by this event."

Stowe, along with other Ukrainian faculty members at WSU, began to organize fundraising efforts for Nova Ukraine, a nonprofit that has raised more than \$30 million to support humanitarian aid to the people of Ukraine. Thus far, Stowe and her colleagues have organized a Ukrainian cinema night, a Techno Against War party with Ukrainian DJs, and a tattoo flash day.

The Russian invasion is Ukraine's war for independence, Stowe says, and she doesn't think the conflict will end anytime soon.

"For 30 years, Ukrainians have been watching Russia going down this rabbit hole of no freedom of press, no freedom of expression. We do not want to be in the same boat as Russia. This is not what we see our future as," Stowe says. "We should all perceive it as our war for democracy and freedom. It just happens that Ukrainians are fighting it." ★

ANNA STOWE AND ALEX DYKHOVYCHNYI PARADE THE UKRAINIAN FLAG ON STADIUM WAY (COURTESY WSU CAHNRS)

An unbreakable bond

BY ALYSEN BOSTON

While his wife and granddaughter were out getting lunch, Marty Becker booked a spur-of-the-moment trip to Romania in April. His mission was to help Ukrainian refugees and their pets.

"I had this calling that I could go over there and make a difference," Becker says.

Becker ('80 DVM), the founder of Fear Free Pets and a former chief veterinarian on Good Morning America for 17 years, hoped to remedy a surge of dog bites at the Romanian border.

"Almost everyone that was handling animals at the border was doing it incorrectly," Becker says. "And that was causing a lot of unnecessary stress for the pets and injuries for the people handling them."

He advised workers to kneel or squat, avoid prolonged direct eye contact, and allow the animal to approach first. The change immediately improved the interactions between people and dogs.

"I'd never been in a war zone before. I've been to hurricanes and other natural disasters in the US," Becker says. "Katrina was the first time we saw that people will not leave their pets behind."

Daniel Fine ('82 Lib. Arts), along with Mark Dyce ('89 Comm.), also spent April assisting refugee pets. Fine and Dyce worked with a team at ADA Foundation, a no-kill veterinary clinic and shelter in Przemysl, Poland, just 30 minutes from the border with Ukraine.

"During war, survival is often more difficult for domesticated animals. Stress is one thing, but we humans stripped away their survival skills," Fine says. "Now they deal with land mines, being shot, missiles or just finding something to eat."

While in Romania, Becker met a Ukrainian woman who had walked barefoot for ten days to reach the border. She had ten Jack Russell terriers with her—six strapped to her body, and four on leashes-and she

was pulling a cart full of food and other supplies for the dogs. She had no food for herself.

"Her feet were frostbitten. She was going to lose toes," Becker says.

"When your world is turned upside down, but you have the unconditional love of a pet, that is going to be what helps. That bond is unbreakable."

Becker's work in Romania was facilitated by World Vets, an international veterinary aid group based in Gig Harbor and led by CEO and founder Cathy King ('97 DVM). *

Below: Marty Becker holds Phyllis, a dog the Beckers are adopting, while talking with Alexandra Sava of Sava's Safe Haven, a nonprofit shelter near Galati. Romania. Sava and her team travel to the border 2-3 times a week to deliver medications, parasite preventives, pet food, crates, leashes, and more. The group also houses Ukrainian pets in rabies quarantine at no cost. Courtesy Marty Becker



In fine voice

BY ADRIANA JANOVICH



The first microphone was an old telephone mouthpiece amplified by coils encased in a soup can.

The can had been painted black for a more "professional" appearance, according to Burt Harrison's 1993 book *Washington State on the Air* detailing the history of broadcasting at Washington State University.

And, in 1922, it wasn't the only reused, recycled, or jerry-rigged component of the institution's new radio station. Most of the equipment was, in fact, second-hand, scrounged from the dismantling of the school's wireless unit or borrowed from the Department of Mechanical and Electrical Engineering's laboratory supplies.

What was once a scrappy college station that broadcasted three nights per week has evolved into a public radio and TV network with 24-hour programming, smartphone apps, Internet streaming services, and more. While technologies, call letters, frequencies, and approaches to providing content have all changed since the station first began broadcasting, WSU has remained on the air.

This year marks a century of broadcasting at WSU.

"It's amazing to work at a station that's 100 years old. There's only a handful of stations celebrating their centennial across the country," says Cara Williams Fry, the new general manager of what's now Northwest Public Broadcasting (NWPB).

She was attracted to Pullman, in part, by the namesake and reputation of WSU's Edward R. Murrow College of Communication, home to NWPB.

"The quality and ethics of journalism that Murrow set for the world is even more important than ever because it's such a divisive world right now," Williams Fry says. "If we stay the course—and Murrow helped set the course—stick to the facts, remain unbiased, and tell the stories of people in their own words, we will remain relevant and resonate with our audiences."

The famed broadcast journalist Edward R. Murrow ('30 Speech) got his start in radio when the station was known by the call letters KWSC. Legendary Hollywood voice-over artist Art Gilmore (x'35 Speech) got his start here, too. So did sportscaster Keith Jackson ('54 Speech), radio and cable broadcasting magnate J. Elroy McCaw ('34 Busi. Admin.), distinguished CBS and ABC reporter Barry Serafin ('64 Gen. Stu.), and CBS executives Charlotte Friel ('51 Speech) and Kay Wight ('63 Comm.).

Throughout the decades, NWPB embraced ever-changing technologies in order to modernize and expand. One of the country's first college radio stations, it has survived numerous advancements—from LP records and magnetic tape to FM radio, microwave and satellite transmission, and, more recently, digital media. Video didn't kill WSU's radio star. In fact, NWPB now encompasses 20 radio and two TV stations. Fourteen radio and four TV translators help boost coverage, reaching some 3.6 million people in 44 counties throughout Washington as well as parts of Oregon, Idaho, and British Columbia.

"How many times has the death of radio been predicted?" asks NWPB's major gifts officer Sandi Billings. "And we have a larger audience than ever."



WSC and the Pullman community raised \$2,000 to establish the station, built by Homer J. Dana (1915, 1916 MS Elec. Eng., 1921 Mech. Eng.), sole employee of the Engineering Experiment Station.

When it went on air in 1922, it broadcasted Monday, Wednesday, and Friday nights. The first formal program—an address from US Secretary of Agriculture Henry A. Wallace read by College of Engineering Dean Hubert V. Carpenter—aired on a Friday. The following Monday, Christmas Day, saw no broadcast. But the station was back on air Wednesday with Carpenter reading another USDA script.

In those early radio days, programming, Billings says, "was all live. The studio had a baby grand piano, and students and faculty would come in to play. There were lectures and musical performances and just a variety of things. But it was always informational and educational."

It was also one of the most powerful stations in the country. Its signal was more than twice that of any of Seattle's six stations, according to *Washington State on the Air*. Fan mail arrived from California to New York.

When the federal government reshuffled frequencies, which happened more than once, the signal didn't reach as far. There were times when the station shared airtime with other stations, including one in Spokane and another run by Seattle's First Presbyterian Church.

Considerable expansion took place under the leadership of Dennis Haarsager, who created a cross-state network of translators and radio stations carrying NPR news and classical music, expanding in largely rural and underserved communities.

Today, NWPB TV programming—available in Spokane, Tri-Cities, and Moscow/Pullman—is available through five channels: KWSU, KTNW, KWSU-CREATE, KTNW-CREATE, and KTNW-WORLD.

NWPB radio programming features three services: NPR news and talk, jazz, and classical music curated by staff in Pullman and Tacoma. NWPB also employs two reporters in Tri-Cities as well as one in Spokane and another in Yakima. Two more reporters cover the Palouse and Lewis Clark Valley.

The network employs about 70 people and continues to serve as a training ground for the next generation of journalists—some of whom end up working for NWPB full time. Program director Sueann Ramella ('00 Comm.) got her start here as a Murrow student in 1997. Tri-Cities correspondent Anna King ('00 Comm.) came to NWPB from newspapers in 2007 and, in 2016, was named WSU Woman of the Year for distinguished public service.

While the centennial provides a milestone upon which to reflect, "we are looking to the future," Fry says. "A hundred years of continual broadcasting is almost unbelievable. We're here at this moment, celebrating a century and the Murrow legacy. It's a legacy to be proud of. And we're going to continue to create content and engage with our communities going forward." **

NWPB THROUGH THE YEARS

by WSM and NWPB staff

- May 15, 1922—President Ernest O. Holland asks the Board of Regents to approve a radio broadcasting station.
- June 21, 1922 US Secretary of Commerce Herbert Hoover authorizes WSC to build a radio broadcasting station.
- December 10, 1922—The station begins broadcasting from the Mechanic Arts Building.
- December 22, 1922—Station manager Hubert V. Carpenter reads an address from US Secretary of Agriculture Henry A. Wallace.
- January 26, 1923—The station broadcasts its first basketball game.
- 1925-Call letters change to KWSC.
- 1926—Maynard Lee Daggy, head of the college's new department of speech, starts what's believed to be the country's first college course in radio performance.
- 1928 Edward R. Murrow ('30) gets his start on air at KWSC.
- 1937-KWSC begins year-round programming.
- 1953 WSC gets a TV studio.
- 1962—KWSC-TV begins broadcasting from Pullman.
- 1969—KWSC becomes KWSU-AM. KWSC television becomes KWSU-TV.
- 1970—Robert A. Mott, founding chair of WSU's Department of Communication, cofounds National Public Radio.
 KWSU is a charter member station.
- 1986—The radio network becomes Northwest Public Radio.
- 2014—The network develops cell phone apps.
- 2015—A reading service for sight-impaired listeners is added.
- 2018—The network becomes Northwest Public Broadcasting.
- 2022—NWPB celebrates 100 years of broadcasting at WSU.

Find a longer NWPB timeline at magazine.wsu.edu/extra/NWPB.

BEEhappy (and more)

The satisfaction of indulging in food might be relatively short-lived, but there's nothing quite like the contentment derived from **Washington State**University delectables.

From the university's famed Cougar Gold cheese to its Crimson Confections and Cougar Series red wine blends, there are many WSU culinary products to make Cougs' palates happy.

cheese appeared in the "Highly Recommend" column of *Bon Appétit* magazine early last year. The verdict: "absolutely incredible." Of course, Cougs already knew that. The canned cheese with a cult-like following comes in a 30-ounce round and is available at Ferdinand's Ice Cream Shoppe, Brelsford WSU Visitor Center, select stores, and online, along with its sister flavors: Natural Viking, Cracked Pepper & Chive, Dill Garlic, Sweet Basil, Natural Cheddar, Smoky Cheddar, Crimson Fire! and Hot Pepper.

CRIMSON CONFECTIONS — Founded in 2016, Crimson Confections are delectable truffles available in 6- or 16-piece gift boxes. WSU hospitality business management, food science, marketing, and engineering students combined their talents to create the rich, sweet treats.

WSU SEASONINGS AND RUBS — Spice things up with flavor combinations from the WSU Department of Animal Sciences, which offers a WSU Espresso Seasoning & Rub and WSU Everything Seasoning.





WSU HONEY — The WSU Department of Entomology produces honey on the Palouse and in Island County as part of its honey bee research. Honey is bottled separately by location to highlight its origin's flavor. Production is seasonal and based upon bees' productivity, so quantities may be limited.

WSU BLENDED LEARNING WINE

SERIES — These red, white, and sparkling wines are available through Brelsford WSU Visitor Center, along with myriad Cougconnected wines and hard ciders. Wines are made by WSU viticulture and enology students in partnership with Washington state winemakers, who share their expertise and resources for a valuable, hands-on learning experience. Grapes come from some of the state's most iconic vineyards.

cougar collectors' series — The red wine blends in this limited-edition series, first bottled in 2014 and made possible through a partnership between Wine-By-Cougars and the WSU Alumni Association, are now up to eight offerings. Sales support scholarships for the next generation of WSU wine leaders and other WSUAA initiatives.

COUGAR BRAND SMOKIES — These

German-style smoked sausages from Cougar Quality Meats at the WSU Meats Lab are made with beef and pork, primarily from the WSU Cattle Feeding Lab and Swine Center. The rest of the recipe is secret.

WSU PREMIUM BEEF — Students and faculty in the Department of Animal Sciences work together to raise and harvest Angus and Wagyu beef from WSU's pasture-to-plate cattle herd. Several packages are available. Cougar Quality Meats also offers all-beef pepperoni sticks, beef jerky in espresso and sweet-and-spicy flavors, pork bratwursts, pork breakfast sausage, and more. ★

SIDElines



On a level playing field

BY JASON KRUMP

Above: WSU head volleyball coach Jen Greeny. Courtesy WSU Athletics. Opposite: Mykiaa Minniss, No. 23. Photo Pete Caster/ The Lewiston Tribune

AS SHE SITS AT HER DESK in her office adjacent to Bohler Gym, Jen Greeny reminisces about an experience at another arena nearly three decades earlier.

Her perspective is forged from the role athletics played in her life, due in large part to her father and two older brothers.

"Growing up, they were my biggest role models," Greeny ('99 Ed.) says.

"We would go to the local gym in Spokane and play basketball," Greeny remembers. "My brother would say, 'Stop being a girl. Jump, grab the ball, and go.'

"They didn't treat me any differently," Greeny continues. "They wanted me to be better and tougher. It didn't matter I was a girl."

Greeny, a multisport star athlete at Davenport High School near Spokane, took that foundation with her while on a recruiting trip to Notre Dame in 1994.

"I was really excited about it," Greeny remembers. "We made it in time for a football pregame pep rally in the arena. Lou Holtz was the coach, and it was packed.

"Not two hours later was the volleyball match and there were only about 200 people there," Greeny recalls. "I know Notre Dame is a big football school, but as a student-athlete and someone who had been around athletics all my life, there was something not quite right with that picture."

Weeks later, Greeny found a home at Washington State on her recruiting visit.

"It was Apple Cup weekend," Greeny says. "We played the Huskies for volleyball and Bohler Gym was absolutely packed.

"The excitement around volleyball and Cindy Fredrick's program was something that helped make my mind up to come to school here."

Greeny has been pivotal in developing the success of Cougar volleyball. Of the program's 16 NCAA Tournament appearances, Greeny is a part of 12, either as a player (1995– 98), assistant coach (2000-04) or, currently, as the head coach since 2011.

As she enters the 2022 season, Greeny has led the program to six consecutive NCAA Tournament appearances, the longest continuous run of national success for any program in WSU history.

The year also marks 50 years of Title IX, federal legislation signed into law June 23, 1972, that prohibits sex discrimination in education.

As the nation and university commemorates the anniversary, Greeny acknowledges her mentors who helped shaped her career path.

She attended a pregame function prior to the women's basketball game in February when WSU recognized Karen (Blair) Troianello, Marcia Saneholtz, Jeanne (Eggart) Helfer, Sue Durrant, and Jo Washburn, who played a significant role in WSU's history with Title IX, and in Greeny's athletic career.

"I took classes in sports management as my minor and had Sue Durrant and Jo Washburn as professors," Greeny says. "I wrote a lot of papers about Title IX and learned Washington State was a big part of that."

In addition to the pioneers, Greeny credits Fredrick, the WSU volleyball coach from 1989 to 2004, as a major influence in her life.

"I was an elementary ed major," Greeny says. "I knew from a young age that I wanted to coach and follow in my dad's and brothers' footsteps in education and coaching.

"I never thought I would coach collegiately," Greeny explains. "I was going to teach and coach high school and did that for a little bit. Working under Cindy as an assistant coach, I witnessed day-to-day how she pushed the boundaries for our program and to raise the standard at Washington State and the Pac-12."

Greeny hopes people use the Title IX anniversary as an opportunity to reassess the significance behind the legislation.

"I think that Title IX can sometimes be a buzzword or something that gets thrown around, 'We have to do this because of Title IX,' like it's an obligation," Greeny says.

"With the fiftieth anniversary I hope people will revisit what it means and should mean," she adds.

That meaning was crystalized for Greeny at Notre Dame, an experience she says, "stays with me."

"Whenever we travel and play at other arenas, especially during preseason, I'm always looking at that," Greeny says of how other schools support female athletics.

A symbol of the support at WSU is a packed Bohler Gym, just like it was on Greeny's recruiting visit.

"It's really important and empowering as a volleyball student-athlete and a coach," Greeny says. "I still have fans that see me now and say, 'I watched you as a student-athlete and Bohler Gym has just the best atmosphere."

Greeny raises two daughters with her husband and volleyball associate head coach Burdette Greeny ('00 Hum.). And just as when she was competing with her brothers at the gym in Spokane, Greeny strives to raise her children, inside and outside the athletic arena, how she was raised.

"It carries over with our daughters, especially with our oldest," Greeny says. "She plays baseball with the boys, pitches, shortstop. She'll go up against any boy. Not only in the athletic realm, but when she will go into the workforce, it doesn't matter that she is a girl.

"It just doesn't matter."





It's 50 for Title IX

BY ADRIANA JANOVICH

MYKIAA MINNISS, a senior and captain of the Cougs' defense for the Washington State University women's soccer team, paused to thank the women who came before her.

"You have laid the groundwork for ... every single woman that hasn't had to struggle with any of these issues right now ... and I look up to every single one of you," said Minniss, the youngest panelist at the second annual virtual Women's Leadership Summit.

Hosted by the WSU Alumni Association in March, the summit commemorated the fiftieth anniversary of Title IX of the Education Amendments Act of 1972. The federal law states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected

to discrimination under any education program or activity receiving federal financial assistance."

Minniss acknowledged her fellow panelists: retired WSU senior associate director of athletics Marcia Saneholtz, retired WSU women's basketball and volleyball coach Sue Durrant ('62 MS Phys. Ed.), sports broadcaster Cindy Brunson ('96 Comm.), and WSU basketball and track-and-field record-setter Jeanne (Eggart) Helfer ('82 Phys. Ed.), a WSU Athletic Hall of Fame member and the first woman to receive an athletic scholarship from WSU.

Their talk, titled "How Far We've Come: A Reflection on the Impact of Title IX" and moderated by WSU First Lady Noel Schulz, discussed gender equality at WSU and the women's personal experiences in athletics, administration, and more. And it's just one way WSU is honoring 50 years of Title IX. Events kicked off in spring and will continue into the fall.

Offerings have included "Know Your Rights" trainings for students and staff, a

"History of Title IX at WSU" workshop on the law's impact, and a discussion of intersectionality of the Americans with Disabilities Act and Title IX. The Power of IX Excellence Fund was also established to support women's athletic teams at WSU, with a fundraising campaign taking place earlier this year.

"Washington State played a significant role in the monumental shift in culture in women's athletics, and our goal with the events and campaign is to educate, celebrate, and continue to elevate our women's

Title IX cont'd



Clockwise, from upper left: Summit presenters attending via Zoom included moderator Noel Schulz, Sue Durrant, Jeanne Helfer, Mykiaa Minniss, Marcia Saneholtz, and Cindy Brunson. Courtesy CF.C

sports programs at WSU and nationally," WSU athletic director Pat Chun said in a news release.

Washington state added its Equal Rights Amendment to the state constitution the same year as Title IX. But things didn't change overnight, particularly in athletics. When Karen (Blair) Troianello ('80 Comm.) ran track at WSU, "Our sweat suits were hand-me-downs from the men's team," she told the magazine in 2007. "The men's coaches were full-time coaches. The women's had to both teach and be a coach. I was on a student board to look at the inequities, and they were pretty obvious."

WSU became a battleground for equal rights in 1979, when coaches and female athletes—including Troianello, whose maiden name is on the case—sued WSU over inadequate funding and other support for women's athletics under the state amendment.

Blair vs. Washington State University became a benchmark for women's rights in Washington, setting a precedent for public four-year colleges and universities. The case went to the state Supreme Court, which—in 1987—ruled in favor of the plaintiffs.

By then, Troianello was working at the Yakima Herald-Republic, where she remains employed today. Earlier this year, Troianello was among the Coug women honored during a Power of IX halftime ceremony at a women's basketball game at Beasley Coliseum. Durrant, Saneholtz, Helfer, and the late Jo Washburn ('64 MS Phys. Ed.) were also honored.

"There had always been inequity between women's and men's sports, but I don't think it really came out in the open until Title IX," Washburn, women's athletic director from 1965 to 1982 and a plaintiff in Blair vs. Washington State University, said in 2007. "When it passed, there were meetings all over campus to talk about inequities. We knew the law said we had to change, but there were people crying that this will be the doom of college athletics. There were others on campus who said, 'we'd like to help (women's sports), but we can't hurt the men's sports."

During the summit, keynote speaker Saneholtz recalled how, in her first year at WSU, Washburn invited her to speak to a sociology class about gender equality in sports. At the start, the female professor asked the class how many of them thought women should have the same opportunities in sports as men. In the classroom of, "I would guess, at least 100 people," Saneholtz said, "only a few raised their hands. I was shocked. It was my first glimpse at how conservative WSU was."

And, "Thus began a lifetime of mythbusting."

Those myths: "Sports were more important for men. Equal opportunity would be the ruination of men's sports. We couldn't afford it. Men's sports paid for women's sports. Or, football pays for women's sports. Or, men's sports pay for themselves. Not as many girls are interested in sports as boys. A perception that since things were getting better, they were good enough. And, my all-time favorite, women want too much, too soon. I was actually told that on more than one occasion," said Saneholtz, a WSU Athletic Hall of Fame member and WSU administrator from 1979 to 2007.

"We worked diligently to figure out ways to move WSU forward," said Durrant, also a WSU Athletic Hall of Fame member and plaintiff in the lawsuit. "If we didn't do the lawsuit then, in our view, it meant we were just going to continue to tolerate the discrimination that occurred."

She encouraged current female athletes and all women to "keep speaking up about the inequities that they see" and emphasized the importance of women in positions of power—a sentiment echoed by Brunson.

"We still have some cages to rattle and some things to do," Brunson said. "But because of the groundwork that has been laid over the last 50 years, I'm very hopeful and optimistic that change can continue to go in the right direction." **

When her grandmother was diagnosed with cancer years ago, **Amanda Boyd** recalls her family going with her grandmother to medical appointments, and they visited the medicine man on the way home.

"Communication about health was difficult. We couldn't talk about sickness because it ...," Boyd pauses, choosing her words carefully. "It made it more real."

Boyd, an associate professor in the Edward R. Murrow College of Communication at Washington State University and a member of the Métis Nation of Alberta, says that her experience with her grandmother demonstrated how critical it is to have trusted information sources to communicate about health and well-being in a way that resonates with Indigenous people.

"My Granny was my inspiration to better understand, design, and evaluate culturally appropriate health communication strategies," says Boyd, who is a recipient of a National Institute on Aging K01 Career Development Award

Boyd is working with collaborators in the Murrow College and the Institute for Research and Education to Advance Community Health (IREACH) at WSU on the five-year grant to examine how Native Americans seek, process, and react to online health information. She says her desire to understand how people can better communicate to Elders inspired the project.

"Elders are respected and valued as knowledge keepers, teachers, and language carriers, and they are the intergenerational transmitters of cultural knowledge," Boyd says. "It's important to understand how to communicate about Alzheimer's disease in an effective and culturally appropriate manner."

Demographic change among Indigenous communities have made Alzheimer's disease more visible, and Boyd says there is a pressing need to raise awareness of the disease and address its impacts on underserved populations.

Those populations are the focus of much of Boyd's research, which includes working with the Inuit in the Arctic to understand perceptions of contaminants, while also promoting the consumption of healthy, traditional food sources. She also studies the



factors that influence a community's support for or opposition to local energy development.

"Sense of place, or place attachment, factors into the way people make decisions and how they think about risks," Boyd says. "It plays a role in where people live, how they value their surroundings, and develop community."

Boyd grew up in the Peace Region of northern Canada with her parents, who are both Métis and Dane-zaa. Her father's family started farming there more than 100 years ago. Boyd's mother's family has lived in the region for much longer.

Place attachment is at the core of Boyd's research. It's her respect for place that pushes Boyd to better understand how to communicate about health and environmental risks, and work toward improving health outcomes. She wants her research with underserved populations to be informed by their needs and conducted in a way that includes experiences, knowledge, and perspectives.

"Her research is to give voice to people who don't have it," says Rachel Ellenwood ('21 MA Comm.), who worked with Boyd as a graduate student.

Alyssa Mayeda ('15, '17 MA Comm.), communications manager at the Seattle Indian Health Board who has worked with Boyd for the past seven years, says Boyd is thoughtful and intentional in how she puts a project together, and in how she presents an idea. She says Boyd is sensitive to making sure research is done well, and ethically.

"She taught me about cultural humility," Mayeda says. "It is learning about how diplomacy works, telling stories in a respectful way."

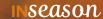
Mayeda says she has learned from Boyd to bring the research back to the communities, to make sure they are involved in the process.

Boyd and her colleagues collaborate with people in the community to make sure the research they do is important to, and ultimately benefits, the people living in the region.

The five-year K01 award will allow Boyd to focus on her research, but that doesn't mean her schedule is free. She has a 3-year-old son with her partner, Travis Paveglio, who is an associate professor at the University of Idaho. She serves on the executive council of the Society for Risk Analysis and coleads efforts to communicate with research stakeholders and get information to the people who can use it for two National Institutes of Health-funded centers. One focuses on controlling blood pressure and reducing the risk of adverse outcomes in Native populations (Native-CHART), and the other focuses on reducing alcohol-related health disparities among Native populations (NCARE).

Ellenwood says Boyd is a gifted teacher, meeting students where they are and supporting them as they grow into the scholars they are capable of becoming.

"That one person who is this pillar for you, supports and inspires you at the same time, that would be Amanda," Ellenwood says. **



HER FATHER GREW "THE SQUASH." So did her grandmother. And it's likely her great-grandmother grew it, too.

"In my family, it never had an official name," says Joanne Kirkland, who was raised north of Boise, in Horseshoe Bend, where her ancestors homesteaded in the mid-1800s. The homestead is no longer in the family. But "The Squash" remains.

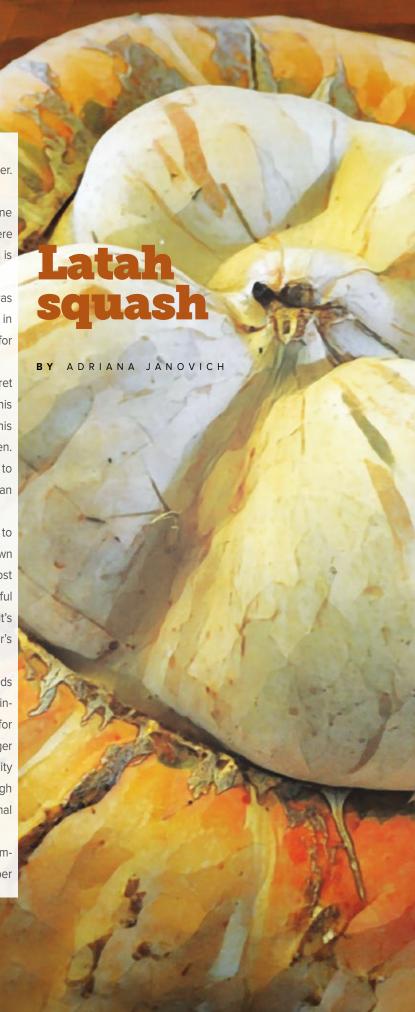
It was the only squash her family grew. "This was it. This was 'The Squash.' Period," Joanne says. "The Squash' was a staple in our household. We knew in winter we would be eating it. And, for many, many years, my father wouldn't share the seeds."

For decades, the seeds were carefully guarded—like a secret recipe or family heirloom. But, in his 80s, her father changed his mind. "As he was nearing the end of his life, he decided, yes, this is a family treasure, but he didn't want it to be lost or forgotten. He said, 'I'm not going to last forever, but I want The Squash to last forever,' and we may start giving away the seeds. So I began giving them to a few people I knew."

By the time she and her husband, Larry, had permission to share the beloved cucurbit, they had long been growing their own in their backyard garden in Moscow, Idaho. "It's one of the most foolproof things we grow," Joanne says. "It's such a wonderful squash. It's so easy to grow. And it's such an excellent keeper." It's not unusual to finish the last of one year's crop as the new year's yield is harvested.

These days, folks don't have to be acquainted with the Kirklands to get hold of what's now officially known as Latah squash, a vining winter variety grown on the Palouse and in the Boise Basin for more than a century. Thanks to the efforts of Brad Jaeckel, manager of Eggert Family Organic Farm at Washington State University Pullman, Latah squash seeds recently became available through the Snake River Seed Cooperative, which specializes in regional heirloom varieties.

"I want to make sure the seed is out there for the larger farming community so we don't lose it," says Jaeckel, the main keeper



of Latah squash seed for the cooperative. "I feel a responsibility in stewarding that seed."

Jaeckel named the squash, a cultivar of Cucurbita maxima, for Latah County, where the Kirklands have been cultivating it for nearly five decades. Joanne's father also grew it for some sixty years. "The Squash," Joanne guesses, dates in her family to the Boise Basin gold rush, when her great-grandmother came to Idaho. "She came in a covered wagon from Wyoming. Whether 'The Squash' was with her on that journey I do not know," says Joanne, noting a relative recently told her the squash seed may have originally come from Georgia before her family acquired it in Horseshoe Bend. There, her great-grandmother "had a truck garden and sold veggies to the miners. We can only guess 'The Squash' was part of that."

Growing up, it was served as a side, "like you would mashed potatoes." It was prized for its long storage capacity, rich flavor, velvety texture, and versatility. Its dense, bright orange flesh—which smells faintly of cantaloupe when first cut—is delicious in both sweet and savory dishes—from silky puréed soups, pasta, and risotto to spice cakes and muffins. Plus, it's perfect in pie. Roasted and combined with sugar and warming spices, it's sweet, smooth, and super creamy—even without the addition of condensed or evaporated milk or heavy cream.

"You could do anything to it you would a can of pumpkin," Joanne says. Larry agrees, but notes, "I like this better than pumpkin."

The hardy variety, squat and round in the middle, sports a tough, peach-colored skin. Larry's yield features a cream-colored crown containing seeds, similar to Turk's Turban. His father-inlaw's looked similar, but "perhaps a bit smaller." Larry's usually run around 10 pounds.

"It's a pretty unusual squash, and it's pretty big," Jaeckel says. "You've got to be brave when you tap a Latah. It's a lot of squash."

His crop at home and WSU is similar in size, color, flavor, and texture, but lacks the knobby crown, and instead sports a tapered

top, like the teardrop-shape of a Blue Hubbard. Some even feature a tinge of dusty blue at the blossom end. He wonders if his openpollinated plants might have crossed with a Blue Hubbard during a breeding experiment Jaeckel worked on years ago with a WSU researcher. ("Our pie-in-the-sky idea was to create a crimson and gray pumpkin," he notes.)

Jaeckel first encountered "The Squash" at a friend's Moscow home in 2005. He was over for dinner, didn't recognize the variety, and asked about its origins. The friend had gotten it from another friend, who had gotten it from Larry.

Jaeckel planted his first Latah squash in 2006 at his own private Orchard Farm, which grows herbs and flowers for his wife's business, Orchard Farm Soap. In 2007, he also planted Latah squash at WSU. Since then, he's been cultivating the seeds at his home farm and donating them to Eggert Family Organic Farm, where he's been selling Latah squash and slowly increasing the yield for 16 seasons. In 2021, the WSU farm grew 1,000 pounds of Latah squash. This year, it's on track to grow 2,000 pounds.

Eggert Family Organic Farm is one of the few places that sells Latah squash. And Jaeckel wants to change that. In 2020, he started selling seeds to the cooperative, which first offered them for retail last year. This year, packets reached seed racks in stores such as the Moscow Food Co-op. Moscow's Affinity Farm also recently started growing Latah squash, selling seeds to the cooperative to augment Jaeckel's crop as well as plant starts and full-grown fruit at the Moscow Farmers Market.

"There isn't a huge demand for it yet," Jaeckel says. "We need more growers to help produce the seed."

Meantime, the exact provenance of Latah squash "still kind of remains a mystery," says Jaeckel, who's perused vintage seed catalogs looking for similar varieties. "I've done Google image searches on squashes—that's a fun thing to do on a rainy day—and haven't found one that looks like this elsewhere." *

Our jittery video call suddenly freezes as **Tenzin Namdul** greets me from a Tibetan refugee community in southern India. His voice is garbled so he pauses to try a different connection. In a few moments, he's back online and cheerfully continues his story.

Namdul is a Tibetan physician and post-doctoral scholar in epidemiology and community health at the University of Minnesota. Together with researchers from Washington State University, he is investigating the unusually low prevalence of Alzheimer's disease in Tibetan monks.

The study was the inspiration of Dedra Buchwald, professor and director of WSU Spokane Health Sciences Institute for Research and Education to Advance Community Health (IREACH).

Namdul says more than a million Tibetans have fled to India and other parts of the world since the People's Republic of China invaded their nation in the 1950s. The refugee village where his team is conducting research is home to one of their large monasteries.

"A 2016 epidemiological study reported a uniquely low prevalence of Alzheimer's and related dementias among the Tibetan population," he says. "Numerous studies also show they have very strong cognitive resilience. For example, Tibetans who have been imprisoned and later escape, show very low levels of post-traumatic stress disorder.

"Our team is studying the monks' daily lifestyle activities, sleep quality and stress, as well as education and meditation practices to see if there is any correlation with brain health or Alzheimer's disease," says Namdul. "Research suggests a strong association between meditation practices and the ability of the brain to stay intact and resilient."

It's a troubling contrast to the United States where chronic conditions like Alzheimer's disease continue to rise. Though the underlying causes are complex and varied, Namdul and other scientists believe some of it is related to stress and our general state of mental well-being or, if you will, Our happiness.

To be sure, navigating three years of the COVID-19 pandemic along with political and social upheaval, the specters of climate change, war, and other chaos, has challenged the most stalwart American, elevating stress and uncertainty across the board.

Many people, finding their lives upended on multiple levels, have been forced to stop and reevaluate their life expectations, career goals, and relationships.

To ask with soul-searching honesty, what is really necessary? What do I keep and what do I let go? What is it that really makes me happy?

Such was the focus of a recent study reported in the *Business Insider*, which asked why Nordic countries like Finland, Denmark, and Iceland consistently rank the highest in happiness. The answer, said the authors, is largely due to more equality in health care, education, and public transportation as well as higher levels of basic human trust.

The bottom line, they suggest, is that people are much happier when they're in an environment where someone's watching their back.

One might say that happiness was written into America's DNA with the 1776 signing of the Declaration of Independence, which states, "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness."

"That concept of happiness comes from Aristotle and later, from the Enlightenment, which our Founding Fathers were a part of and read about," says **KEN FAUNCE**, WSU associate professor of history.

"Specifically, it came from English philosopher John Locke who wrote about life, liberty, and the pursuit of property. In the early US, you had to own property in order to vote. Jefferson liked the idea of owning property, so he combined it to say that by owning property, you are a true US citizen, and you have a voice. This gives you well-being, therefore, happiness. Therefore, it should be pursuit of happiness.

"So, it wasn't just let's be happy but because you own property, you have money and political representation, therefore your well-being is good, so you're happy," he says. "Though at the time, Jefferson was only referring to wealthy white men."

Nevertheless, Faunce says the idea of well-being and happiness crept into general American culture from our earliest days, with Europeans noticing that Colonial Americans smiled a lot and seemed to be happier.

"It really took off in the early nineteenth century as the US became more urban and industrial with people working outside the home and for longer hours," he says. "Then, you begin to see a push for recreation and fun to counterbalance all that hard work. It started with adults but over time transitioned to children. By the early twentieth century, child rearing books stressed that happiness was essential to your child's well-being."

The notion ramped up after World War I, as the United States began mass producing goods during the 1920s. For the first time, average citizens could afford to buy formerly out-of-reach luxury items

During that period, Sigmund Freud's American nephew, Edward Bernays, capitalized on Freud's ideas and used them to sell more products, says Faunce. Bernays began by adapting propaganda techniques used in WWI.

In his 1928 book *Propaganda*, Bernays said that by understanding the group mind, it would be possible to manipulate people's behavior without their even realizing it. He went on to rebrand the word propaganda as public relations and became known as the father of PR.

"He used these techniques to tap into people's inner desires and then provide that new car or trendy product for them to buy resulting in happiness," says Faunce. "It was called 'The Happiness Machine.'

"In the past, people bought things for how functional and longlasting they were. Now, it's about how this product makes you feel. So, that consumerism coming out of the 1920s was all due to Bernays."



"The way I find happiness is through family and community. I am happiest when I spend time with my family, and when I'm active and part of the community." — Ken Faunce

Faunce says there were many related developments occurring around the same time. In the 1930s, for example, the "Happy Birthday" song became popular, and people began wishing each other "Happy Birthday." It was again tied to consumerism because what makes a birthday happy? Presents, of course.

"You can see it happening in popular culture, like with Disney, which started in the '30s but became big in the 1950s with television programs and Disneyland," says Faunce. "Disney was geared to making kids happy, which in turn makes their parents happy. Here's this enchanted place and movies and cartoons—the Happiest Place on Earth. A big part of what he was doing was selling happiness to families.

"If you think about it," he adds, "McDonald's began in the 1950s and eventually came out with Happy Meals. World War II is over, and everyone wants to be happy again—there's this mix of consumerism and making people content. Then, in the 1960s and '70s, we got the yellow Smiley Face and 'Have a Happy Day!"

WSU associate professor of philosophy **Matt Stichter** says business and pop culture still promote the idea that making lots of money and spending it on fancy goods is going to make you feel fulfilled. "But is it?" he asks.

"Does it give your life meaning and are you living well? Or does it seem that no matter what you buy, you're always looking for more?"

Stichter, who studies virtue ethics and moral psychology, says that over the last fifty years, there has been renewed interest in Aristotle's philosophy on ideas like happiness and morality.

In contrast to the hedonic approach offered by fellow Greek philosopher Aristippus, who said a good life entailed the pursuit of pleasure and avoidance of pain, Aristotle proposed the eudaimonic theory of well-being or self-actualization.

"While the hedonic aspects of happiness focus on good feelings and pleasure in the moment, eudaimonic happiness means human flourishing or living well," Stichter says. "It's a long-term perspective on our lives about the kind of person you want to be and how to cultivate good character in yourself.

"Aristotle thought to live well as a human being had elements common to everyone—meeting biological and psychological needs as well as having initiative, some autonomy, and choice," he says. "We also need to feel competent that we can excel in various areas of our lives. Our social relations with other people are also a huge part of human nature and impact what living well consists of."

Stichter is specifically interested in how the pursuit of goals relates to well-being, whether that's a career or personal projects, and how those goals ally with our deeply held values, and things we find meaningful or give us a sense of purpose.

"When they align, we get a lot of satisfaction out of the goals we're pursuing," he says. "But when they're out of alignment we'll find ourselves feeling unfulfilled. Many people will struggle with this in their careers. They may be somewhat in alignment, and it gives them some satisfaction but not enough."



"Aristotle thought morality was about the big picture ideas—like how to judge that you are living well as a human being. How you could have a crummy day but still know that you're doing well overall in the grand scheme of things. We know we'll make mistakes going through life but we're still trying to do the best we can with the choices we make and goals we pursue." — Matt Stichter

Stichter shares an example from the pandemic concerning the restaurant industry and how difficult it's been to hire workers back.

"When people lost their jobs in that industry, it was only when they had time away from it that they realized how miserable that environment was making them," he says. "They wanted another job but not in that industry. With low pay, long hours, bad working conditions, and constantly fighting burnout, many realized that wasn't the way they wanted to live.

"It's unfortunate it took a global pandemic and job loss to get people into a state where they could reevaluate their lives," Stichter says. "People could take a step back from the entrenched routines, habits, and expectations and ask if that was really what they wanted to be doing."

The point, he says, is that self-knowledge is required in order to set goals in line with your enduring values and interests. It requires insight and critical thinking to know what gives your life meaning and ultimately happiness.

"You can't just rely on the ideas that you grew up with or inherited from your family, religion, or culture," Stichter says. "You can't just rest assured those ideas are necessarily accurate or the best conception of what it means to live well."

The field of psychology, too, has recently begun embracing Aristotle's broader concept of living well.

"Researchers are discovering there are at least two facets to overall well-being," says **WALTER SCOTT**, psychology professor and director of the WSU Psychology Clinic.

"While we all need the hedonic part of feeling positive emotions, our well-being also relies on the eudaimonic part of living a life in accordance with one's virtues, moral standards, and life goals."

Scott says there are individual genetic differences in people's ability to experience positive emotions or "joy juice."

"Joy juice is really a system of dopamine-mediated brain structures that are activated when we anticipate a reward or excitement of something positive," he says. "Some people possess temperaments where their joy juice is readily activated.

"You can think of it like a psychic gas pedal—if you see something you want or is exciting, some people have very sensitive gas pedals and go, go, go! It's related to the trait of extraversion and is linked to genes.

"Studies show that other people have very sensitive fear systems," Scott says. "Like a psychic brake pedal, they have high reactivity to threats or unfamiliarity and are hesitant to approach. Infants have shown this response as early as 14 months of age, and often turned out to be shy and more prone to anxiety and depression in late adolescence.

"So, there are individual differences in temperament that predispose some of us to be more or less happy. But biology is not baked. There are lots of factors in play especially in regard to an eudaimonic life of meaning and purpose."

Scott says a large part of eudaimonia is being self-aware; knowing what we like and what makes us feel good. Then, consciously working to schedule those types of activities into our lives.

Since the beginning of the COVID-19 pandemic, Scott and his colleagues have noticed a steady increase in clients who are distressed, anxious, and depressed. He says the isolation and disconnection from other people, on top of disturbing world events, has caused many to lose their sense of control and competence.

"When people come in depressed or anxious, we focus on treating them with evidence-based interventions such as antidepressants or cognitive behavioral therapy (CBT)," he says. "But relapse is a big problem.



"I love my job. I get a lot of eudaimonic well-being and sense of purpose and meaning from my research and doing projects with my graduate students. [Family] relationships are really important to me and give me a sense of connectedness. I like gardening and I play guitar. I feel connected to the folks in my neighborhood and often get together to jam with friends." — Walter Scott

"In the first year of both pharmacotherapy and psychotherapy, we had considered it a success if folks no longer met the criteria for depression. But that doesn't mean they are healthy—many still report not doing real well, they're feeling irritable and unhappy. Those persistent subclinical symptoms are a big predictor of relapse."

Psychologists have recently begun exploring auxiliary treatments such as well-being therapy, based on a theory of psychological well-being developed by University of Wisconsin-Madison psychologist Carol Ryff.

The Ryff Scales of Psychological Well-Being evaluate a patient's level of self-acceptance, establishment of quality ties to others, sense of autonomy in thought and action, ability to manage complex environments to suit personal needs and values, pursuit of meaningful goals and sense of purpose in life, and continued growth and development as a person.

"In well-being therapy, they try to determine which aspects of well-being people are deficient in and then try to systematically cultivate those areas," says Scott. "After the successful use of CBT or medications, we might have folks monitor moments in life when they're experiencing relative well-being as well as what interferes with it.

"Initial findings show well-being therapy reduces risk of depression relapse," he says. "People feel more connected, competent, and more resilient to the slings and arrows of life. They're in a stronger place."

When people experience eudaimonia in their lives, they are often described as flourishing. During the pandemic, however, many felt something of the opposite—a lingering state of blahs called languishing.



"For me, happiness is feeling energized and looking forward to activities I have coming up for the day, and the ability to plan for the short- or long-term future and really feel invested in the positive outcomes of those plans." — Anne Mason

"Languishing is the neglected middle child of mental health," wrote psychologist Adam Grant in a 2021 *New York Times* article. "It's the void between depression and flourishing—the absence of well-being.

"'Not depressed' doesn't mean you're not struggling," he wrote. "'Not burned out' doesn't mean you're fired up. Languishing dulls your motivation, disrupts your ability to focus, and triples the odds that you'll cut back on work."

"It's a generalized feeling of dissatisfaction," says **ANNE MASON** ('02 BS, '05 MS Nursing) associate dean of the College of Nursing at WSU Spokane Health Sciences. "We can be unhappy with our job or a relationship, but this is a more generalized feeling that is a perpetual

state between work and home. We suddenly don't feel connected to the things we normally do, or feel emotion around, or there's a lack of joyfulness."

Mason says she's seen some languishing in the children and parents she works with as a parttime psychiatric mental health nurse practitioner at the Emily Program in Spokane for adolescents with eating disorders.

"For adolescents, the lack of connection and easy socialization opportunities during COVID were real losses and it wasn't replaced by online-based connections," she says. "We found it quite starkly—these young people, who seem so competent on their phones, were suddenly thrust into a situation where everything they did is through a screen. And they didn't do well.

"And I think that's really important to recognize," Mason says.
"We had adolescents who didn't want to attend treatment programs through a telehealth option. Kids really wanted to go back for the in-person opportunity.

"In the program, we do things like therapeutic meals and it's hard to do that on telehealth and feel we're making a good connection with individuals," she says. "An in-person environment is much easier, and it feels like you can provide a much different level of support."

Mason says one of the foundations of nursing care is to evaluate whole-person health—to check in with the patient's mental, physical, emotional, and spiritual well-being.

"All those areas are equally important," she says. "We use an element of assessment for all four spheres. We are obviously aware of the physical symptoms, but we also ask about spiritual practices and assess how they are emotionally handling what they're going through."

To collect data for his Alzheimer's disease studies, Namdul has spent years living among the Tibetan refugees, getting to know them personally and documenting their lifestyle and activities—within those four spheres.

"Most of my research informants have become my teachers—many were monks and elderly Tibetans," he says. "One of the things that is considered so important in their culture is cultivating the happiness that is sustainable and rooted in inner calmness and well-being."

Namdul says Tibetans believe that if happiness is contingent upon external things, there's a chance it won't be sustainable because things change all the time.

"Therefore, the emphasis is very much on internal happiness and well-being which is not only sustainable but also more reliable," he says. "By internal, they mean their own minds and so their mind is the source of happiness and their whole cultural focus is on how to protect and safeguard their minds."

The primary way they do that is by looking out for others.

"The trick here, for them in this culture, is that the moment when their focus shifts from oneself to others, the level of one's own confidence and security increases and the level of one's propensity to judge others and feel bad about one's own condition, all of it gets to a more controllable level," Namdul says.

"It may sound very counterintuitive. I've asked my informants, 'How can you be happy when you look out for the happiness and well-being of others all the time?'

"They say that if you go deeper into things, you realize we are very much dependent upon everyone in our environment. You see the only way to safeguard yourself and your well-being is to take care of others whom you are dependent upon."

Namdul says this includes family members, friends, colleagues, partners—and also animals, plants, birds, water, and the planet in general.

"Therefore, the more I look out for them, the more I will be in a much better position to put myself in a state of happiness or a deep level of satisfaction," he says.

It's a philosophy that aligns well with Mayo Clinic studies showing that people who volunteer their time helping others report higher levels of life satisfaction and happiness. By investing in others' well-being, volunteers gain a sense of purpose and meaning while also building stronger social bonds.

Aristotle said the greatest virtues are those which are most useful to other persons. In other words, whether we give or receive support, it seems humans are happiest when we've got each other's backs. **

"I gave a talk on stress and had to put a mirror in front of myself to really be honest about how I handle it. I have worked on this for years yet wonder sometimes how we can be unconscious of our own stress level.

"The best way I've found to assess my stress levels is by the way I interact with my close circle of friends and family members. I realize that when I'm not so nice to them, the stress is getting to me. I have to really look inward and think about all the things I've learned or heard from my teachers and try to incorporate that into my own engagement with stress." — Tenzin Namdul

(+) a deeper dive into happiness and well-being: magazine.wsu.edu/extra/happiness-is

magazine.wsu.edu 29



ALTERNATING LIMBS FROM EACH CHERRY TREE STRETCH OUT TO THE SKY, FORMING A "Y" SHAPE. THE ROWS OF TREES LOOK AMAZINGLY UNIFORM ON THE ROZA FARM NEAR PROSSER, CREATING TUNNELS WITH NEATLY TRIMMED SMALLER BRANCHES GROWING IN AN ALMOST TWO-DIMENSIONAL STRUCTURE.

The synchronicity in the orchard makes it easy and efficient for people to prune the trees and harvest the cherries. It's also much easier for robots to find and clip errant branches, pollinate flowers, and quickly pick the fruit.

Matthew Whiting ('01 PhD Hort.), a Washington State University horticulture professor based at the Irrigated Agriculture Research and Extension Center, says automating orchard tasks like pruning, pollinating, and picking becomes much more achievable with fruiting "walls" on sculpted cherry and apple trees.

The machines to do the work come from a team of engineers and computer scientists who work with Whiting and experts from around the world to build the next generation of automation. The researchers at the WSU Center for Precision and Automated Agricultural Systems (CPAAS), led by director and automation engineer Qin Zhang, develop technology that can take over some of the tedious tasks in orchards.

Those robots, learning through artificial intelligence and seeing through advanced machine vision, test their chops in WSU's Roza Farm orchards. Eventually they'll graduate to the commercial world where they are sorely needed.

As the tree fruit and other ag industries face significant labor shortages that can hinder their businesses, automated solutions can provide another way to ensure we can still get apples, cherries, and the rest of the bounty of Washington state.

Mechanization and automation in agriculture is not a new concept; for row crops, it's already here. "That's not true for many specialty crops. In the state of Washington, our specialty crops depend on human labor," Zhang says. "With availability of human labor becoming more and more a problem, the sustainability of the specialty crops is becoming a challenge."

Zhang, precision agriculture engineer Lav Khot, and robotics engineer Manoj Karkee join a critical mass of computer scientists, crop and soil scientists, economists, and WSU Extension outreach specialists to build robots to work in orchards, gather and translate data to make farms more efficient, get those innovations to growers, and eventually construct smart control centers to run the operations.

As Khot says, they are building and testing a "farms of the future" concept.

ROZA FARM'S EXPERIMENTAL ORCHARDS ARE ABOUT A 10-MINUTE DRIVE THROUGH PLOTS OF HOPS, GRAPES, APPLES, AND OTHER CROPS TO THE WSU PROSSER RESEARCH STATION AND CPAAS BUILDING. DOWN A HALL PAST A WALL OF FRAMED PATENTS, A HUGE WAREHOUSE-LIKE WORKSHOP PROVIDES ROOM TO WORK ON PROJECTS.





AN AI-DRIVEN ROBOT SCANS AND THINS APPLE BLOSSOMS AT ROZA EXPERIMENTAL FARM

It's one of the best indoor spaces in the world for ag automation research, Zhang says. Researchers can quickly build and iterate field-scale prototypes with 3D printers, CNC machines, and other equipment. It's one way that CPAAS developed an international reputation over the past 25 years, with partnerships around the world and thousands of visiting faculty.

The center's goal is clear: address the pressing needs of farmers, like labor for tree fruit and other specialty crops. The deficit of farmworkers goes back decades, exacerbated by the pandemic, declining interest in hard farm labor, and complications with immigrant and guest worker programs.

We are not replacing humans, Zhang says. "We have farmers who don't have people to help do the farming. If we don't address this issue in a few years, we will have no apples to eat."

With an aging population of farmers, Karkee adds, "technologies also have a role to play to widen the potential for people of all ages and all physical capabilities to contribute to farming."

One solution to smooth the ups and downs of labor needs is a cost-effective, multipurpose robot with specialized attachments.

"It would not just do harvesting," Karkee says, "but it could have a pruning hand, a pollination hand, a chemical application and a thinning hand."

The boxy robot built by Karkee and the team looks a little like WALL-E from the animated movie, but without the big expressive eyes. That doesn't mean it can't see. In fact, advances in machine

vision make much of the work possible. Combined with AI, such a robot could be tomorrow's farmhand.

CONSISTENCY IS A KEY TO AUTOMATING ORCHARD WORK. ROBOTS NEED ALGORITHMS TO LEARN WHAT TO LOOK FOR AND WHAT TO DO. IF A SYSTEM IS IRREGULAR OR COMPLICATED. IT BECOMES VERY TRICKY.

Automation is already widespread among field crops such as wheat and other grains. GPS easily guides tractors along consistent rows for tilling, harvesting, and other tasks, with barely any human interaction. Fully automated tractors are just on the horizon.

Orchards and fruit trees, on the other hand, can be a little messier. For example, cherry harvesting in a traditional system requires more time and labor than other tree fruit, with dozens of pickers climbing 10- to 12-foot ladders into the tall trees for harvesting and other tasks. Branches grow in every direction.

"Years ago, mechanical engineers and robotic scientists would come out and look at the cherry trees and say, 'There's not much we can do here. We could do automation, but it'll be very complex and very expensive,'" Whiting says.

On the other hand, the upright fruiting offshoot (UFO) system that Whiting and his colleagues have used at the Roza experimental orchard relies on shorter, simpler cherry trees that increase harvest efficiency—as much as 50 times more efficient with a robot. Machines can also more easily learn how to prune, what to pick, and even where to pollinate.

HORTICULTURIST MATTHEW WHITING AMONG UFO CHERRY ORCHARDS ▼





MANOJ KARKEE FINE-TUNES ONE OF THE ROBOTS FOR ORCHARD TASKS

"Whatever you're doing in orchard structures, think about 20 years down the line, not about next year. What will be the labor situation? What technology will we have available?" Whiting says. "That begins with the structure of the trees."

Although a lot more UFO orchards are planted around the world than in Washington state, data collection and successful demonstrations can make a difference. The CPAAS team demonstrated independent robotic pruning in the UFO cherry orchard for the first time this spring. With no previous knowledge, the robot imaged the branches, extended its arm, and effectively pruned trees.

Whiting points out that another benefit is to gather effective pruning knowledge. Even experienced pruners rely more on instinct than data. As machines learn the best way to achieve yield and desired growth, the pruning rules get even better.

JUST A FEW HUNDRED FEET FROM THE UFO CHERRY TREES, PLOTS OF WA38 APPLE TREES PRESENT OTHER CHALLENGES FOR AUTOMATION, SUCH AS POLLINATION.

Pollination, Whiting says, is fraught with variability.

It seems simple. Hives are brought to orchards and pollinators carry pollen from flower to flower, using pollinizers—trees of different genotypes that provide pollen.

There's often an asynchrony with pollinators and blooms, and climate change has really perturbed the system by affecting bloom

times. A cold snap can keep bees immobile. Precision pollination systems can change that equation.

"What I see as the future for apple orchards is to take over the pollination process," Whiting says.

In that case, no bees would be brought in and no pollinizer trees would be necessary. Trees would bloom and an automated pollination system would fertilize a targeted number of flowers.

"The robot would scan the trees and say, 'Ah, there's an open king flower. Let's give it a shot of pollen," Whiting says. The king flower is the 'central' flower in apple clusters and it typically opens before the others in the cluster.

"The potential of robotic pollination really excites me. Every year, crop load management is a perennial struggle. It's a guessing game," Whiting says.

Crop load management, trying to get the right number and quality of fruit, goes back a century. Not only would automated pollination simplify the process, machines could scan trees and determine the optimal number of fruit for individual trees.

Part of management is also thinning flowers so there aren't too many apples in a cluster and have better fruit.

"Growers want consistency so badly that they are going through and pinching off flowers by hand, leaving one. They hire crews to do this at a cost of several thousand per acre," Whiting says.

Karkee and other engineers demonstrated the ability for robots not only to pollinate, but also to thin flowers. Their prototype found pale





pink flower clusters on the apple trees and mechanically removed several of them with a whirling wire-based system like a tiny weed whacker.

ONCE THE FRUIT IS READY, THE ORCHARD ROBOT COULD EASE THE NEED FOR HUMAN HARVESTING.

For cherries, the UFO tree architecture and the right varieties that fall off easily are already ripe for automation. Whiting says running a mechanical harvester that uses a shaking method to release the fruit far outstrips the old, slow system of harvesting cherries by hand.

A worker can walk along with a remote-controlled machine that has an arm hitting branches and fruit falls into a basket. "They can harvest 50 times more fruit than picking by hand," Whiting says.

An automated cherry harvesting system comes next, as do similar experiments for cider apples. "The potential for a fully mechanical harvester is so compelling," Whiting says.

Karkee says research into apple picking started at CPAAS about eight years ago with support from the National Robotics Initiative.

Karkee and CPAAS then began collaborating several years ago with FFRobotics, a company from Israel working on automated fruit harvesting. Combining vision and AI expertise with the FFRobotics apple-picking robot hand, they have been testing it for the last few years in both Washington state and Israel.

As they develop and improve models for robots to identify fruit and branches, and make the right decisions to then grab the fruit, the technology gets closer to commercialization.

THE ABILITY FOR MACHINES TO EVALUATE AND LEARN CAN ALSO MAKE AGRICULTURE MORE RESILIENT, KHOT SAYS.

Khot, interim director of WSU's AgWeatherNet in addition to his role at CPAAS, specializes in developing precision technologies. He and his team use drones to gather information on crop stress, water use, and plant needs.

That real-time data provided by drones can improve crop management such as spraying at the right time, refining irrigation, or mitigating heat stress on fruit with fogging and misters.

"Growers can lose up to 40 percent of their crop in hotter years," Khot says. "We can use localized weather information, tied to localized sensing, to help growers avoid crop loss."

Karkee also says bringing AI to agriculture can improve farming decisions by reducing inputs like fertilizer and labor. "We get better outcomes over time because AI can learn over time," he says. "And it can help preserve expert knowledge from farmers."

One of the challenges for gathering that crucial data, Khot says, is a lack of broadband connectivity in rural areas, where the farms are. His work collects gigabytes of data from imaging with multispectral sensors and LIDARs. WSU and Khot are collaborating with 5G Open Innovation Lab and other partners to address the problem, but more needs to be done to provide real-time information for farmers.





▲ DRONES LIKE THIS ONE BEING TESTED BY LAV KHOT AND GRADUATE STUDENTS GATHER PRECISE DATA TO SUPPORT ORCHARDISTS

THE AUTOMATION AND AI RESEARCH TO IMPROVE ORCHARDS AND FARMS PROMISES TO EASE LABOR SHORTAGES AND PROVIDE ADVANCED TOOLS, BUT CPAAS CREATES PROTOTYPES AND NOT PRODUCTION, ZHANG SAYS. AND TESTING AND RESEARCH REQUIRE TIME.

Although the needs are urgent, "we prove the concepts but they need to move to commercialization. That takes years of work," he says.

There's certainly a demand for automated technologies, and some commercial products already enhance farms. For example, Carbon Robotics, a Seattle-based ag tech company with WSU alumni engineers, rolled out its LaserWeeder™ for eliminating weeds in specialty crops. [see sidebar]

Fortunately, many partners for CPAAS bring global visibility and connect WSU to companies such as FFRobotics—and eventually get automation into the field.

CPAAS has formal partnerships with Kyoto University in Japan, University of Sydney in Australia, and Leibniz Institute for Agricultural Engineering & Bioeconomy in Germany. Researchers also work with Carnegie Mellon University, Oregon State University, Michigan State University, Penn State University, and institutions from India to New Zealand.

Last spring, WSU launched the AgAID Institute with \$20 million from USDA National Institute of Food and Agriculture and National Science Foundation. It will accelerate AI-driven ag technology research, and help the development of pruning and thinning robots, better

models to detect crop stress from cold or water, and other research goals.

Other funding for CPAAS over the years has come from the Washington Tree Fruit Commission, USDA, Washington State Department of Agriculture, and many others. Wherever the funding comes from, the research has a single purpose.

"No matter how you approach mechanization, the end goal is to make farmers more productive and profitable," Zhang says.

In turn, growers are very supportive of the work. "We have several of our research projects hosted by local growers to test the precision technologies in commercial settings," Khot says.

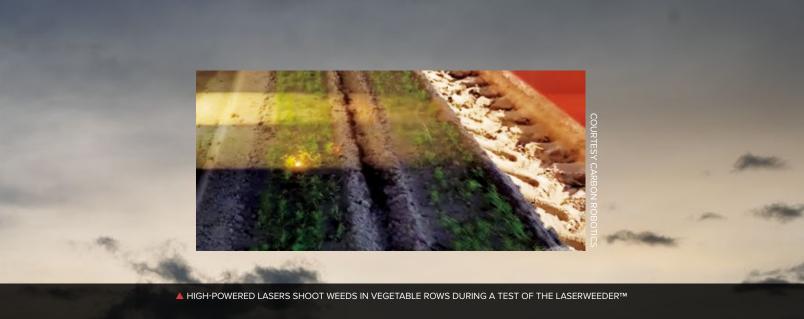
Back in the CPAAS building, a small room off of the workshop will soon be home to its first ag control center. The computers will connect with remote robots and data-collecting instruments in Roza Farm. It's long been a goal for Zhang, Khot, and Karkee to bring together technologies in a command center like this one, which could allow a farmer to run a large operation from a single place.

"In the last 40 years, the effort has been to develop precision agriculture, to precisely use resources. The next 40 years, we need to automate and smartly operate farms," Zhang says.

Khot says this viewpoint fits WSU's role to support agriculture and find technology that can help growers be less dependent on human labor. The transdisciplinary research teams can bring that vision to fruition.

"The farm of the future is integrated, not in a silo," Khot says.*





A NEW HIGH-TECH WEAPON is being deployed to destroy weeds among onions, carrots, and spinach.

The 2022 LaserWeeder™ implement, pulled by a tractor between crop rows, uses advanced vision to spot weeds, then shoot them with lasers. It looks like science fiction, but the machine from Carbon Robotics, an ag tech company founded in 2018 by Paul Mikesell in Seattle, can benefit farms that want to avoid herbicides or overcome labor shortages associated with hand weeding.

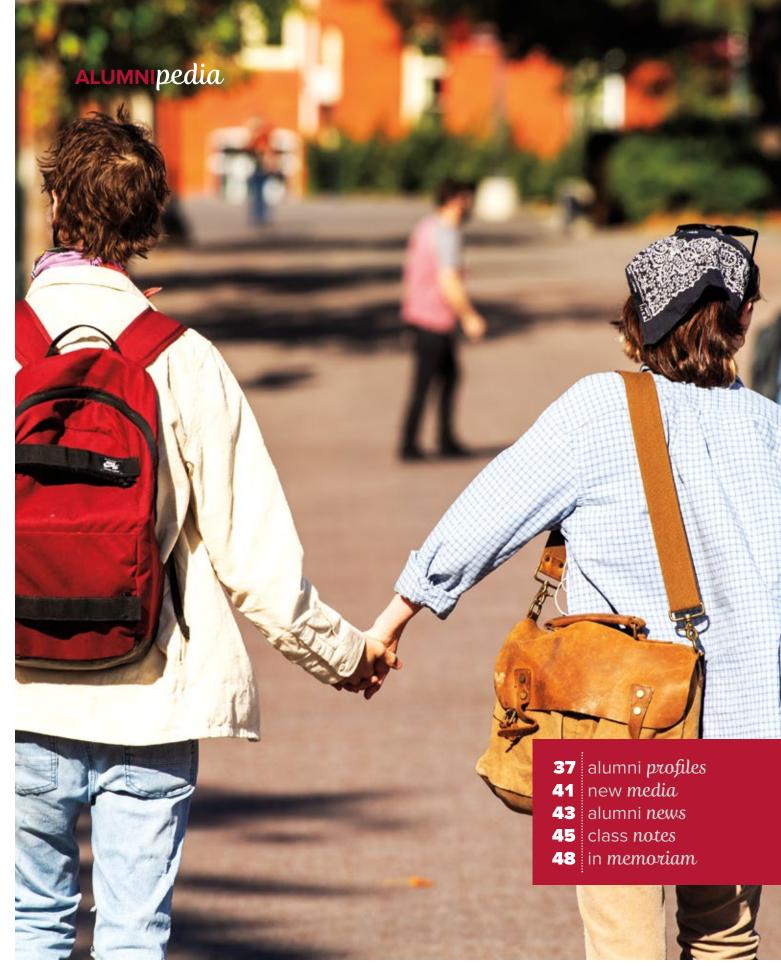
John Miller ('15 Mech. Eng.), along with Chris Grandberry ('21 Mech. Eng.) and other engineers, work on the new technology, which provides a no-till, organic solution for weeds.

Miller concentrates on the company's patented lighting system that the machine requires to see the weeds. "In order for them to get clear images using their visioning systems, they have to block out external lights and work in the dark," Miller says. The array of "stadium" lights are about four times brighter than the sun, providing near-perfect light coverage for images.

The high-precision cameras constantly take snapshots that are processed by deep learning models to detect weeds. The coordinates are sent to lasers and ... zap.

As a WSU student, Miller interned at an automation company that works with Boeing, sparking his interest in the field. He says he now enjoys the engineering challenges that keep the team busy, such as making sure that instruments with such finesse can still perform on rigorous terrain. **





FIRST DAY OF CLASSES ON THE PULLMAN CAMPUS, FALL 2021 (PHOTO ROBERT HUBNER)



Virtually—from all perspectives

Aperture Test Chambers scene from *Portal 2*. *Courtesy Chris Chin*

BY WENDA REED

A video game is "play-tested" when players move through the environments to see how they interact with the features. Why couldn't a building be "live-tested" when clients move through the spaces to see how they interact with the elements?

For Chris Chin ('87 Arch.) the lines between architecture in the real world and environments in the virtual world have blurred. After almost 20 years in traditional architecture, Chin was hired by Bellevue video game maker Valve in 2006 to create settings for game play.

Turning back to architecture to design his Seattle home for himself and wife Amanda (Rustine) Chin ('88 Pharm.), Chin incorporated the computer modeling techniques he uses at Valve. "I sat in my own house for two years before it was built (in 2019)," he says.

He designed the low-slung, contemporary, light-filled house using SketchUp 3D computer modeling software. "I teleported myself into the house with a virtual reality headset," he explains. "I could catch things

in the alignment of features that I wouldn't have caught in a 2D drawing."

Geolocating the model with Google Earth, he could see how the surfaces and colors would look at various times of the day and year, how the views from windows could change and how big the overhangs should be. He's using the same techniques for a home he is designing for a friend in Bellingham.

Chin's own path began with a lifelong interest in buildings and constructing physical models of them. He was told he was artistically inclined while growing up in Singapore and laughs about entering an art competition in second grade. "The other kids drew families and people flying kites; I drew the Singapore National Theater building."

After high school, he served in the Singapore Navy for more than two years—part of the national service requirement. A shipmate was interested in architecture and looked up the subject in bookstores when they had shore leave. Chin decided to study architecture in the United States.

"I got a very grounded education at WSU," he says, particularly noting architecture professor David Scott and architectural graphics professor Kim Singhrs. The latter introduced him to computer design, giving him the assignment to digitize the first 3D

rendition of Holland Library—with each coordinate typed in manually.

He also had a chance to work on the design of Emmanuel Baptist Church in Pullman. A semester in Denmark in 1986 influenced his preference for minimal, restrained architecture. After college, he worked for BJSS, an Olympia architectural company, and then for ZGF Architects in Portland, with a few years with Thomas Hacker and Associates, also in Portland.

Hacker had been a student of Louis Kahn, about whom Chin wrote a paper in college. Kahn wanted his buildings to have meaning and symbolism. "Tom always wanted to know *why* you designed a building the way you did," Chin says. "You don't construct ornamentation; you ornament construction."

One of his favorite projects was Portland State University's School of Urban and Public Affairs building. In 2005, he and others in his office at ZGF did a weekend of training at Valve to learn how the techniques of games could be used to visualize architecture. "Later, I got a call from Valve asking if I would be interested in joining them," Chin remembers. "What do you want me to do?" I asked. "They said, 'We don't know.' That intrigued me. I think I was one of the first architects to be hired



Courtey Chris Chin

by a video game company to design virtual buildings and environments."

Beginning with Valve's proprietary 3D modeling software, Chin has constructed environments from a Savannah plantation to alien worlds. He's designed settings for *Half Life 2, Portal 1* and *2*, and *Left for Dead 1* and *2*.

For *Portal 2*, for example, he created a 1950s test lab, complete with twisted bits of metal hanging from the ceilings, debris scattered on the floor, and cracked cellar walls. Most recently, he has been updating a game map for *CounterStrike*: *Global Offensive*, giving it a mid-century modern vibe.

Virtual design isn't done in a vacuum. Chin collaborates with writers, software developers, and animators to make sure his environments enhance game play, the primary driver of all decisions. In real-world design, the client's lifestyle is the primary driver. "I don't see why we can't test architectural designs through the use of VR," Chin says.

He notes that many larger architectural companies are hiring designated visualization experts, but they usually use the virtual models as a marketing tool. He thinks architects will soon use 3D modeling and virtual reality earlier in the design process so that clients can walk through the rooms where they will live and work, seeing the buildings from all angles, at all times of the day, and from all perspectives. **

Opening up a different world

BY ADRIANA JANOVICH

Growing up, **Rantz Hoseley** loved doodling.

One day, he drew a single gaming die, titling the image *Die*, and wrote the word in all capital letters on the sketch. He thought it looked cool. His father had a different take, blowing up at the boy, screaming, Hoseley recalls, "Why the hell are you saying life is a gamble then you die?"

The moment became a pivotal point in Hoseley's young life and has since inspired an eight-minute film set in the Lewis Clark Valley. The coming-of-age short, also titled *Die* and shot in Moscow and Lewiston, Idaho, last summer, explores father-son relationships, toxic masculinity, generational trauma, and the moment a child discovers subtext.

Hoseley (x'94 Fine Arts) returned to the Inland Northwest to direct the short, which he also wrote. He created the film as proof of concept for a full-length feature film that he also wrote and hopes to direct, exploring similar, but darker themes. It, too, was inspired by his own childhood in Clarkston, where he was raised by a single mom. His father, Hoseley says, was "a world-class grifter" who "coasted on his charisma and good looks" until his death.

But, Hoseley also says, "I don't hold animosity or resentment toward my father. I feel sorry him. He never really found a way to be happy."

By day, Hoseley is an award-winning senior editor at Z2 Comics, where—its tagline notes—"music and comics collide." He oversees production, design, and content creation across multiple book projects at a time. By night and some early mornings he writes screenplays and works on other passion projects, such as painting the cover of Tori Amos's 2020 holiday EP, *Christmastide*.

The two met in the mid-1980s when she was playing piano at the Holiday Inn near LAX. They became and remain "fast friends,"

says Hoseley, who started at Z2 in 2019. The company specializes in graphic novels about musicians and bands, including the Grateful Dead, Elvis Presley, Anthrax, Joan Jett, and Judas Priest. But it's not all rock and roll. Z2 has also produced a book in honor of Ludwig van Beethoven's two-hundred-fiftieth birthday, as well as graphic novels on jazz saxophonist Charlie Parker.

"We have metal. We have pop. We have hip-hop. We have country western," Hoseley says. "Seventeen-year-old me is seriously shocked and stunned that I'm getting to work with people whose music I lived and breathed as a kid in Clarkston in the '80s."

Back then, he loved *Star Wars*, science fiction, and—of course—comic books. "Growing up in this small little town with no exposure to fine art, comic books were like a gateway drug for my art education," says Hoseley, who moved to Los Angeles after high school in 1986. Art school was "entirely expensive, and I didn't feel like I was getting my money's worth." So he moved back with the idea he would get an art degree, become an art teacher, and do comics and writing on the side.

Volunteering in a junior high art class changed his mind. But working at the *Daily Evergreen* solidified his desire to write and create. He was the advertising art director, entertainment editor, and a comic-strip artist for Washington State University's student



newspaper, "and it fundamentally changed my life. I would not have had my career if I had not worked at the *Daily Evergreen*. It taught me how to be a manager. It taught me to multitask and shift from project to project. I would get out of class and go to the art department/advertising area of student publications and make sure everyone had their assignments for the day, then I would go down the hall to editorial and work on 'Borderline' stuff while also doing the comic strip."

"Borderline" was the entertainment section and, Hoseley says, "I was fortunate to be



Opposite: Rantz Hoseley. **Above:** Drawing of musician Tori Amos by Hoseley. **Courtey Rantz A. Hoseley**

the editor as grunge completely exploded. There were two dozen really fantastic local bands, and I got to do coverage of Lollapalooza and bands like Candlebox and Blind Melon, playing little clubs in Pullman before they broke big. It was an exciting time to be at WSU. In hindsight, it was one of those moments where there was a mercurial level of magic with all these things lining up."

After WSU, he moved back to LA and, after a short stint at a magazine, landed a short-term contract as an artist for a video game company. He also created story boards for music videos, such as Aerosmith's "Dude Looks Like a Lady." In 1996, he became a senior computer graphic artist at Disney

Interactive, designing environments, characters, levels, and visual style guides for three years. Then, he spent 13 years in Orange County, working at Quicksilver Software. "As creative director, you're supervising music and sound, scripts, voiceover recording—everything that is not programming," Hoseley says.

He won Eisner and Harvey awards for 2008's *Comic Book Tattoo*, his graphic novel anthology of 51 stories based on songs by Amos.

During his tenure as managing editor of *Heavy Metal* magazine from 2016 to 2019, he wrote the graphic novel adaptation of Nikki Sixx's memoir, *The Heroin Diaries*, for Heavy Metal Publications and Eleven Seven Music.

His full-length feature film *The Sinners Almanac* is based on the Lewis Clark Valley serial killer, who operated in the 1980s when Hoseley was a Boy Scout. The film "isn't about the murders. It's about how these things impact and change a community and how they haunt the kids who grew up there," says Hoseley, noting *Die* is thematically tied to the longer film but isn't a sequel or prequel or narratively connected. A Kickstarter campaign with the goal of raising \$8,000—it ended up raising \$13,000—helped fund the short, which was completed in November of 2021, and has been submitted to a number of festivals around the world.

Meantime, Hoseley's working on another script for a feature-length film set in 1978 on the Oregon Coast. *The Whaling* is loosely based on the 1970 explosion of a sperm whale that washed up on the beach in Florence, Oregon.

He's also working with Amos again, this time on a graphic novel to mark the thirtieth anniversary of her 1992 debut album *Little Earthquakes*. The 24-story collection, set to be available in September, features collaborations with best-selling author Margaret Atwood and artist David Mack, who will create a narrative and illustrations for the song "Silent All These Years." Neil Gaiman will write a story for "Tear in Your Hand," illustrated by Bilquis Evely.

In today's chaotic world, creativity, Hoseley says, "is the one thing I have control over. I can write, and I can make art, and people need art. They need stories, and I do think it can change the world if you've done your job well. It can comfort them. It can make people examine their own points of view. It can open up a different world to them." **

From the heart

BY KURT ANTHONY KRUG

Monica Gayle ('82 Comm.) vividly remembers when her agent told her FOX wanted her in Detroit. It was 1997, she was anchoring news for Seattle's KSTW-TV, and she was too pregnant to travel. So, the general manager and news director of WJBK-TV flew out to interview her.

"We met for lunch, they brought baby gifts, and said, 'What's it gonna take to get you to come to Detroit?" recalls Gayle, who—at that point—had never been to Michigan.

They ended up flying her husband, Dean Grevé ('81 Comm.), the first full-time Butch T. Cougar mascot, to Detroit. He took footage on his camcorder while they showed him around. And, after watching the video, Gayle took the job.

Once she had the baby—a son, Tanner—she flew out to do a promotional shoot and meet her new team. "Monica is a brilliant journalist filled with compassion, kindness, and courage. I've been blessed to have her as a colleague and friend," says Huel Perkins, Gayle's coanchor of 25 of her 40 years in TV news.

To remain in the same market with the same coanchor for a quarter century is a rarity. "A coanchor relationship is very much like a marriage," Gayle says. "We see more of each other than our spouses in any given workweek. To be able to have a coanchor who knows how to read you, certainly in a breaking news situation, there's something extraordinary about that."

Gayle and Perkins signed off for the final time March 25. When Perkins announced his retirement, Gayle followed suit. The decision, she says, just "felt right. It's been an amazing career. I've done everything I wanted to do. After 40 years, I'm letting myself have the next few months to exhale. The goal is to decompress and decide what we want to do when we want to do it."



Gayle arrived at WSU with aspirations of becoming a lawyer. That changed her sophomore year when she helped a communications student with a project, anchoring a newscast. "One of the professors, Glenn Johnson, asked if I was majoring in communications," she recalls. "I said, 'No.' He said, 'Well, maybe you should think about it.' I started taking some classes and quickly realized I loved it."

SOURTESY FOX 2 DETROIT

Grevé was a teaching assistant in one of her communications classes. They dated briefly, then rekindled the flame when they reunited 13 years later. Today, they've been married 28 years, have one son, and split their time between Michigan and Washington.

Gayle's first broadcast job right out of college was at KULR-TV in Billings, Montana, and she rapidly rose through various Pacific Northwest markets. From 1992 to 1994, when she and Grevé were newlyweds, Gayle worked for CBS in New York City, coanchoring *Up to the Minute* and *CBS Morning News*.

She coanchored *The Ten O'Clock News* from 1995 to 1997 for KSTW in Seattle, moving there to start a family before Detroit lured her away. "I always felt good because we went back to our roots"—Gayle grew up in Wenatchee—"had our son in Seattle, and were closer to our parents. Ilook back on it and don't regret leaving the network. It's a tough life."

Throughout her career, Gayle has covered many history-making events, including the Oklahoma City bombing, the O.J. Simpson trial, 9/11, and the war in Bosnia. A highlight was covering the 1992 election with Dan Rather.

"I recently came across a handwritten note from him, congratulating me on a great start on *Up to the Minute* in conjunction with the convention coverage," Gayle says. "I was touched by that. People mistakenly think these stars in the business don't have time for things like that, but he took the time and recognized the fact it was a big deal for me to be there."

The note, she says, is "sitting on my desk right now."

Reflecting on her career, several months into retirement, she says, "Hopefully, I was a calm, reassuring voice for viewers, even when the news wasn't good. I hope they remember me as a genuine journalist, as someone who spoke from the heart, who was empathetic, could cut through the noise, and was someone they considered a friend because they let me into their living room every night." **

Bringing you up to date

BY ADRIANA JANOVICH

Marcus Lathan, newly single at the end of 2020, "wasn't really doing any dating." It was winter in Portland. The pandemic was raging. His work in real estate was busy. So, he didn't download any dating apps. And while he had heard of *The Bachelorette*, he hadn't seen a full episode.

When a representative of the hit ABC show contacted him in early 2021 via social media to encourage him to apply, he says he thought, "I might as well say yes to this experience and see where it goes." He also binged-watched season 14 to familiarize himself with the format.

Lathan ('12 Busi.) wound up being one of the 30 men vying for Katie Thurston's affection on the seventeenth season of *The Bachelorette*. Six went home the first night and, "unfortunately, I was one of them," says Lathan, a real estate broker, property manager, part-time model and DJ, and VanCoug.

He studied finance and marketing, graduating from WSU Vancouver without



setting foot on the Pullman campus. "It was a good fit for me. I was able to build my network locally, and that has helped me in real estate," says Lathan, who lives in Portland and sells property in both Oregon and Washington.

For the past ten years, he's also been represented by a modeling agency, appearing in ads and commercials for Nike, Columbia, Microsoft, and more. Modeling "definitely helped being in front of the camera. You kind of forget it's there."

Filming for *The Bachelorette* took place at a resort in New Mexico in early spring 2021. "I was the only person other than Katie from the Pacific Northwest," Lathan says. "So I had that edge."

Thurston grew up in Lynnwood and worked as a bank marketing manager in Renton. She was a contestant on season 25 of *The Bachelor*.

"I wasn't nervous until we pulled up and they told me I was going to be the first one out of the limo," Lathan says. Thurston "was super nice and looked amazing. We chatted for a little bit, but it didn't air."

After introductions, he headed inside to the cocktail party. "There were already 25 guys in the room," he says. "I walked around and introduced myself."

Contestants took photos and did small-group or individual interviews during the party. It was "a really long night of filming," Lathan says, noting, "Everything's filmed. You're mic'd up the whole time, and pretty much everything is fair game. You have to be comfortable with being vulnerable and talking about almost anything and everything. Everybody's kind of nervous. You're all working on getting your time with Katie before the night is over."

Is the show scripted? "No, not at all. It's all real conversation, and they don't do retakes. But it's not being broadcast live so you don't know what's going to be edited out."

Given the chance to do it over, "I would probably come up with something fun to do coming out of the limo," he says. "A lot of guys did something extravagant. If I could have made that part a bit more fun maybe it would have gone a little differently."

When the elimination started, "you're actually nervous. You don't know what's going to happen. You're just standing there, waiting for your name to be called."

To make things more uncomfortable, Lathan says, "the room was very hot. A lot of us had our backs to the fireplace, and we were just sweating like crazy the entire time."

He didn't receive any money for being on the show, but his flights, food, ground transportation, and lodging were covered. And he still keeps in touch with some of the contestants. "It's a fun club of people who have been through this interesting experience together," he says. "I would definitely be open to doing another reality show, if that becomes a possibility."

The night the first episode aired, June 7, 2021, "was crazy in terms of my social media blowing up with messages and new followers on all of the platforms. I got a lot of messages of support from the Portland and Vancouver area, which was a lot of fun."

Since then, "I've been recognized a handful of times," Lathan says, joking, "I'm a Z-list celebrity." ☀



Standing on shoulders

BY ADRIANA JANOVICH

Bennie L. Harris ('95 MBA) is the first Black chancellor at the University of South Carolina Upstate and the fifth chancellor since the institution was established in 1967. His formal investiture ceremony took place in April. He assumed the role in July 2021.

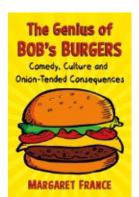
"I am humbled to serve as the first African American chancellor of USC Upstate," Harris says. "I recognize that I stand on the shoulders of so many great people and that I embody the aspirations and hopes of so many, particularly individuals of color. And I look forward to all the great things we will accomplish to advance education for all that inspires a thriving and just society."

Harris is a former director for the Center of Human Rights at Washington State University and served in leadership positions at Lipscomb University, DePaul University, the University of Alabama at Birmingham, and Morehouse School of Medicine before coming to USC Upstate in Spartanburg, South Carolina.

A native of the Mississippi Delta farming community of Deeson, Harris also earned a bachelor of science in industrial engineering from Mississippi State University and a doctorate in strategic educational marketing from the University of Alabama at Birmingham.

Today, he serves on the boards of numerous civic organizations, including the United Way of the Piedmont and the NCAA Big South Conference. He's married to his college sweetheart, Frankie A. Harris, former assistant director of the Women's Resource Center at WSU. She received WSU's Distinguished Volunteer Service Award, Faculty Award, and the President's Excellence Award.

The Harrises were cofounders of the Black Orientation to Leadership Development Conference and the African American Women's Conference at WSU. They have three adult children: Bria, Bennie II, and Branden.



newmedia

The Genius of Bob's Burgers: Comedy, Culture and Onion-Tended Consequences

MARGARET FRANCE '02 MA ENGLISH MCFARLAND: 2022

The nine provocative essays in this scholarly study of *Bob's Burgers* examine what it means that an animated sitcom about a struggling family burger joint not only exists today—and has since 2011—but why it resonates with modern audiences in such particular ways.

Margaret France, who has a doctorate in English literature and teaches at Yakima Valley College, argues that the show deserves "recognition as an ongoing meditation on what it means to be a member of a family, a class, and a country in twenty-first-century America."

Writing from 2015 through 2020, France cites episodes from the first ten seasons, relating them to "larger cultural issues, particularly those of identity, whether that identity is defined by age, gender, sexuality, or family roles." She contemplates their multigenerational appeal, observing that *Bob's Burgers* "has become a hearth around which a wide variety of adults and children can gather." She also explores specific moments in which the show reveals rifts between generations.

France admittedly adores *Bob's Burgers*—her favorite guest voice is Jon Hamm as a talking toilet—and her collection of well-researched and insightful academic arguments will help fans delve deeper into its significance as a cultural artifact. It will get readers to think more deeply about the show and develop their own arguments surrounding its place in modern American television and popular culture.

NEWmedia cont'd

France considers the influence of birthorder theory on Bob's Burgers, discusses "what a baby boomer fantasy looks like through the lens of Generation X"—particularly through parodying and rejecting stereotypes portrayed in Steven Spielberg's early films—and investigates the cross-casting of characters. Her critical commentary, like the show itself, will appeal to readers across generations.

Original, thought-provoking, intellectual yet approachable, and often brilliantly funny, France's examination will help readers—from casual Bob's Burgers viewers to die-hard fans-understand the show in a new way.

- Adriana Janovich



Writing While Masked: Reflections on 2020 and **Beyond**

MARY ANN GONZALES, TYSON GREER, WANDA HERNDON, LAURA CELISE LIPPMAN, JANE SPALDING, SUZANNE TEDESKO, BETH WEIR

BASALT BOOKS: 2021

Seven Seattle-area women share their observations of the first year of living under the cloud of COVID-19 in this volume from Basalt Books, the first offering from the new imprint of WSU Press.

As the virus spread and history unfolded, these members of a weekly writing group turned to the page to help themselves cope. They wrote about events as they occurred, from the police killing of George Floyd to the stress and fear and hope and joy of restructuring life in lockdown. The result is a pandemic diary of sorts, packed with poems and personal essays.

Entries are arranged by month, with a postscript encompassing the first half of 2021. A timeline opens each chapter, reminding readers of milestones of a turbulent year. January 7, the World Health Organization is notified of a novel coronavirus emerging in China. March 11, WHO declares COVID-19 a pandemic. April 2, the worldwide number of COVID-19 cases hits 1 million.

This snapshot of pandemic life, written near the site of the first identified US COVID-19 case, is an updated version of a previously self-published book. It includes 10 new works not part of the initial book.

Its authors, aspiring writers retired from professional careers, include a former Starbucks senior vice president, longtime nonprofit employee, and a couple of documentarians. One is in her 80s. Another is a physician-turned-poet. Still another worked as a development director. A couple have taught at the college level.

They discuss a long-awaited trip to Italy during the earliest days of the pandemic, a return to the rhythm of breadmaking, an unexpected cohabitation, and cooking through the pandemic with recipes from a book on Indian cuisine. They write about physically distanced social gatherings with friends, caring for a grandchild, sleepless nights, and finding calm in nature. Together, they offer personal looks into their lives during the worst parts of the pandemic, sharing insights, disappointments, losses, and challenges to which readers can collectively relate.

- Adriana Janovich

Cadenzas: A work of fiction

ALEX KUO

REDBAT BOOKS: 2021

"The thing is, often writers are so fixated on the historical accuracy of their work that they leave out the truth," Alex Kuo writes in his latest novel, described in press materials as "Kuo's accumulation of more than 80 years of living, listening, and writing on several continents and breathing in the cadences of several languages, including three Chinese dialects."

In this provocative new work, Kuo presents an imagined conversation between music and language, intertwining literary characters,



historical figures, and authors both living and long dead with commentary on culture, race, gender, and politics, and often mixing locations and chronologies.

"We think back and forth," Kuo told the magazine in 2015. "Time is totally irrelevant."

Kuo spent 33 years as an English and comparative ethnic studies professor and writer at Washington State University before retiring in 2012. In his new novel, as in prior works, he challenges readers—at times talking directly to them and, at others, referring to himself in third-person. He inserts himself, referencing his own previous works of fiction—Mao's Kisses and shanghai. shanghai.shanghai—in a novel that is dynamic, deliberate, and tightly written. Kuo doesn't waste words.

He plays with form and content, forcing the reader to examine Kuo's very specific choices surrounding reality and its representation, and the strength and frailty of language and narrative. Cadenzas is full of questions. It's a meticulously organized novel with effectively no plot and no characters, set against a composition by Johann Sebastian Bach. It reorders historical benchmarks and literary standards, sometimes linking them in the same paragraph or even the same sentence, creating a sort of surreal continuity. Multicolored fonts, different typefaces, mathematical equations, photos, and illustrations pepper the pages. Chapters aren't delineated by names or numbers, but symbols. The index identifies them, aptly, A through Z.

Cadenzas is not a long read. As Kuo points out in the text, "A reader does not have to take a cruise to distant ports to find the time to finish reading this book." But it's not for the casual reader, either. It requires readers to work, to think, and—if they don't have strong literary backgrounds—quite possibly to also do a little research in order to better understand Kuo's latest exploration.

Adriana Janovich

BRIEFLY NOTED

My Flight JAMES SCHOEPFLIN

Clarinetist, conductor, and longtime WSU associate professor of music, James Schoepflin tells his life story and how religion, music, aviation, and travel impacted him. A self-described sheltered farm boy from a religious family in rural Idaho, he attended Seventh-day Adventist schools until the eye-opening experience of public education at the University of Idaho. Schoepflin embraced a career in music and music education, left his religion, and retired from WSU in 2005 after 29 years.

Light Up the World: When I Grow Up, I Want to Be a Lineman SARAH REIJONEN '06 COMM. LITTLE CAMPER PUBLISHING COMPANY: 2021

Spark a kid's interest in a career as a lineman with this children's book, Sarah Reijonen's first, and part of her Tiny Tradesman series to introduce kids to different trades. Reijonen, a self-described "proud linewife" whose husband is a lineman, says "he and I are passionate about encouraging the next generation to pursue life on the lines."

Outside Looking In: Lobbyists' Views on Civil Discourse in U.S. State Legislatures

EDITED BY NICHOLAS LOVRICH, FRANCIS A. BENJAMIN, JOHN C. PIERCE, AND WILLIAM D.

SCHRECKHISE WSU PRESS: 2021

Essays examine the results of a survey on civil discourse sent to lobbyists in all 50 states and cover topics such as political culture and heritage, professionalism in state legislatures, and the effects of rural-urban divide and inequality. Nicholas Lovrich is Regents Professor Emeritus of political science at WSU. Francis Benjamin is an analyst with the WSU psychology department. John Pierce, former dean of the College of Liberal Arts and professor at WSU, is a political scientist at the University of Kansas. William Schreckhise is a political science professor at the University of Arkansas.

Alumni Association News

2022 top ten seniors

They represent the highest standards of the college experience.

For more than 80 years, Washington State University has recognized ten seniors from each graduating class. These students come from across all WSU campuses and embody the best in five areas of college life: academics, athletics, campus involvement, community service, and visual and performing arts.

The WSU Alumni Association and Student Alumni Ambassadors oversee the program. A committee of faculty, staff, and students chooses two winners in each category based on criteria such as leadership activities and academic achievements.

Here are this year's Top Ten Seniors:

ACADEMICS

Forrest Fearington ('22 Neurosci.) plans to attend medical school and become a physician. Annie Lu ('22 Math) has been accepted to a doctoral program at UCLA.

ATHLETICS

Michaela Bayerlova ('22 Data Analytics), the 2022 Pac-12 Women's Tennis Scholar-Athlete of the Year, plans to play tennis professionally. Chloe Larson ('22 Kinesio.), a captain of the WSU varsity swim team and WSU record-holder in several events, intends to apply for an accelerated nursing program and become an ICU nurse.

CAMPUS INVOLVEMENT

Jocelyn Granados Mejia ('22 Poli. Sci., Psych.) plans to prepare for law school. Nolan Thomaswick ('22 Accounting) has landed an internship at one of the four biggest accounting firms in the United States.

COMMUNITY SERVICE

Lindsey Gass ('22 Kinesio.) organized virtual museum tours, sidewalk chalk art displays, and more to brighten the days of Pullman's older residents during the pandemic. Aydan Miner ('22 Comm.), as president and founder of PERIOD at WSU, advocated for menstrual equity.

VISUAL AND PERFORMING ARTS

Cameron Barton ('22 Music) plans to pursue a master's degree in piano performance at the University of Arizona. Not only is she an award-winning artist—her specialty is painting—but Cristina Navarro ('22 Fine Arts) also assisted with WSU art classes. She hopes to work in an art gallery or museum, and possibly teach.

Read profiles of the 2022 Top 10 Seniors at wsu.edu/impact/2022-top-ten.

Secure Your Bottle of Cougar IX



The only way to guarantee your bottle is to join the Wine-By-Cougars Wine Club



 $\label{thm:wine-By-Cougars} Wine \ Club \ is \ free \ to \ join \ for \ WSU \ Alumni \ Association \ members.$

CLASSNOtes

JOANNE HUNGATE ('56 Gen. Stu.) was selected to exhibit her art at the national show "The Unknown Nature of Being" at the Tubac Center of the Arts in Tubac, Arizona. Hungate has worked in water media, collage, assemblage, miniature art, and photography for 70 years. Her work has been exhibited throughout the United States and kept in collections in Canada, Japan, Korea, Australia, New Zealand, and other countries.

GERRY LINDGREN ('68 Poli. Sci.) is an inaugural inductee of the US Track & Field and Cross Country Coaches Association's Collegiate Athlete Hall of Fame Class of 2022. As a WSU athlete, Lindgren won 11 straight NCAA titles and shared a world record for the 6-mile with a time of 27 minutes, 11.6 seconds. He was the first American to ever beat Russians in a distance race, winning the 10,000 in Los Angeles in 1964. He won a spot on the 1964 US Olympic team but suffered a sprained ankle during training and finished ninth in the 10,000.

DAVID MILLER ('75 German, Gen. Stu., '84 MA Ag. Econ.) was awarded the Order of the Rising Sun, Gold Rays with Rosette, by Koji Tomita, ambassador of Japan to the United States. The award recognizes Miller's nearly 15-year career at the US Embassy in Japan. As the former agricultural minister-counselor, Miller fostered strong relationships in Japan. During his final tour of duty, he restored wheat trade exports to Japan from Pacific Northwest wheat producers.

DAVE WIKE ('80 Comm.) was inducted into the Northwester Chapter of the National Academy of Television Arts & Sciences' Silver Circle, which recognizes individuals who have served in the industry for 25 years or more. Wike is honored for his work as a television news photographer for Seattle's KING-TV, where he has worked since 1982.

** HENRY RONO* ('81 Gen. Stu., '83 Psych.) is an inaugural inductee of the US Track & Field and Cross Country Coaches Association's Collegiate Athlete Hall of Fame Class of 2022. In 1978, he set four world distance records for track and field in 81 days. He also won

six NCAA titles for cross country. 5 NELLA LUDLOW ('82 Gen. Stu., Phys. Sci.) will lead a new program in quantum computing at Wright State University, where she will also establish research opportunities between the university and the US Air Force. Ludlow became a professor of computer science and mathematics at WSU in 2015 and was later named director of data analytics. She continues to teach at WSU as an adjunct professor of mathematics. As a WSU student, she received an Air Force scholarship to study at the University of Edinburgh, earning a doctorate in artificial intelligence and completing postdoctoral work in computer science at the University of Cambridge. After retiring from the Air Force, she worked for various tech companies before going into teaching. 5 MARY STOHR ('83, '87 MA Crim. Jus., '90 PhD Poli. Sci.) received the Academy of Criminal Justice Sciences' John Howard Award for her contributions to the practice of corrections. Stohr became a professor in the WSU Department of Criminal Justice and Criminology in 2013 after working at Missouri State University, Boise State University, and New Mexico State University for 23 years. Stohr also worked as a correctional officer and counselor at a men's prison in the 1980s. 5 JIM BARNHART ('84 Elec. Eng.) is chief operating officer at Velodyne Lidar, a leading provider of 3D light detection and ranging solutions for products such as autonomous vehicles, driver assistance, robotics, and more. His new book, Elite and True: Leadership Lessons Inspired by the U.S. Navy, translates real-life experiences in the US Navy's Office Candidate School, Nuclear Power School, and submarine service into deeper leadership insights. Malkofen ('85 Accounting) is chief financial officer for Alpha Cognition, a biopharmaceutical company based in Vancouver, British Columbia, that focuses on neurodegenerative disorders. Kalkofen has been a CFO for more than 20 years at both public and private companies, including Protagonist Therapeutics. He began his career at PricewaterhouseCoopers.

RAELYN FARNSWORTH ('93 DVM) is chief medical officer at the WSU Veterinary Teaching Hospital, the largest veterinary referral center in the Pacific Northwest. Farnsworth has worked with the hospital for 20 years. She previously worked at private practices in Virginia and Minnesota. 55 DEBORAH REYNOLDS ('94 Gen. Sci., '06 MA Regional Planning) is interim director of the Washington Utilities and Transportation Commission's Regulatory Services Division. Reynolds has served more than 22 years at the commission, most recently as assistant director for Conservation and Energy Planning, and she has aided implementation of the Clean Energy Transformation Act. **BEN FERNEY** ('97 Gen. Stu., Ed., '18 Superintendent Cert.) is superintendent of the Cheney School District. Ferney has also served as superintendent at Valley School District, principal at Freeman Middle School, and assistant principal at Cheney Middle School

BRAD WILSON ('00 Soc. Stu., Ed., '11 Principal Cert.) is Lake Chelan School District's superintendent. Wilson was principal of Lake Chelan High School. He is also the Association of Washington School Principals' 2022 Principal of the Year. MELINDA R. ROBERTS ('05 MA, '09) PhD Crim. Jus.) is dean of Indiana State University's College of Arts and Sciences. Roberts was an associate dean, professor of criminal justice, and director of gender studies at the University of Southern Indiana since 2009. **TONY POSTON** ('08 Poli. Sci., '11 Crim. Jus.) is executive director of CougsFirst!, a network for businesses owned, managed, and affiliated with WSU alumni. Poston cofounded College Hill Custom Threads in 2011. He stepped down as its CEO in January.

CHRISTINA BAUM ('11 MA Busi.) is vice president of digital transformation and chief information officer at Utah Valley University. She previously served as associate vice president of academic and student digital services at UVU as well as CIO for Ensign College. Before that, she worked in information and communication services at technology companies. SEACH COCCOLI ('11 Poli. Sci.) is deputy director of the Montana Department of Agriculture. A native of Choteau, Montana,

CLASSNOtes

ENRIQUE IBARRA moved to California right after graduation from Washington State University, beginning his career at San Diego's Hotel del Coronado, then the once-prestigious but now-closed Racquet Club in Palm Springs. While he visited Washington many times, he never returned to Pullman.

"Through WSU, I found what I really wanted to do with my life. It was a big blessing for me," says Ibarra ('81 Hotel & Rest. Admin.). But, "It did not occur to me to come back"—that is, not until the announcement for **La Alianza de WSU Alumni Weekend and Gala**.

The event, held April 29 to May 1, attracted nearly 200 students and alumni from throughout Washington and Oregon and as far away as Texas, Colorado, and California. For some attendees, including Ibarra, it marked their first return to WSU Pullman since graduation.

"It was overwhelming," says Ibarra, who now lives in Los Angeles and works as a fruit-and-vegetable broker, specializing in Hispanic supermarkets. "There was just the most beautiful, gratifying energy at the event. It made me very happy to be back."

The idea for the first-time gala originated with the executive team of the university's Chicanx/Latinx alumni chapter. "We wanted everyone who attended the event to feel like WSU and the Alumni Association and La Alianza laid out a big red carpet for them," says KARLA T. BLANCO ('13 MA Counseling, '17 PhD Counseling Psych.), president of La Alianza de WSU.

Latinx students make up the largest historically underrepresented group at WSU, accounting for 15 percent of the student population—up from 5.5 percent in 2009.

"A lot of our Latino Cougs are first-generation college students and come from low-income backgrounds. They need to see us. They need to see Latino alumni and where they can go from here," says Karla, who was born in Mexico and raised in California by farmworker parents.

"A lot of our parents come from labor jobs, and we have this stereotype that that's all we do," she says. "There's a lot of honor in being an essential worker—we wouldn't make it without them—but



our parents came to this country so their kids could have an education. I think it's important to break that stereotype by showing up in big numbers. It's important for students and alumni to see people who look like us in higher

The event drew support from WSU's College Assistance Migrant Program, Multicultural Student Services, Honors College, College of Arts and Sciences, and WSU Tri-Cities. Alumni Association staff members helped organize logistics, such as tours of the Elson S. Floyd Cultural Center, Jordan Schnitzer Museum of Art WSU, and WSU's athletic facilities.

Festivities included an alumni social, student organization showcase, lunch at the Chicanx/Latinx Student Center, and book signing with actress and model **BLANCA BLANCO** ('03 Psych.). The starlet provided two scholarships, which she presented at the gala. She also took part in a Q&A, discussing growing up in a Mexican-American family in Chelan, overcoming obstacles to pursue her education, and breaking into the TV and movie business.

"We got a lot of traction from this event," Karla says, noting the chapter aims to hold the gala every other year. "It's the beginning of something much bigger."

Meantime, Ibarra, who was born in Mexico and raised on both sides of the border, is already planning a return trip to Pullman—his second visit in one year after 41 years away. This time, he wants to bring his family. He's also planning to further his involvement with La Alianza. "I want to start a scholarship for migrant workers' kids—like I was," he says.

Like Ibarra, Karla was moved by "the energy in the room. We were celebrating each other—by being there, reminiscing, telling our stories, sharing our memories from WSU, and also making new ones."

BY ADRIANA JANOVICH

In addition to Karla Blanco, La Alianza's executive team is made up of Margarita (Maggie) Esquivel-Torres ('11 Busi., '12 MBA), Vanessa Reyes Romero ('13 Crim. Jus.), Omar Rubio (x'14 Const. Mgmt.), Noé Valdovinos Orozco ('11 CES), and Rafáel Benavides Pruneda ('11 and '13 Hist. and CES).

he previously served as deputy legal counsel, acting deputy director, and agriculture development division administrator for the MDA. ** CRAIG CARSTENS ('12 MHPA Pharm.) is chief financial officer at Floyd County Medical Center in Charles City, Iowa. Carstens was CFO at Osceola Regional Health Center in Sibley, Iowa, and previously directed financial operations at Mercy Medical Center in Sioux City, Iowa. ** JOHANNA BROWN ('13 MIT) won the National Science Teaching Association's

Robert E. Yager Exemplary Teaching Award, which honors teachers who make science education accessible to students. Brown teaches chemistry and computer science at Pullman High School and leads the science department. AMETHYST FREIBOTT ('17 English) received a Fulbright English Teaching Assistant award. She will begin teaching in Budapest, Hungary, this fall. Freibott previously taught English as a volunteer in Kenya, Mexico, Myanmar, and the Dominican Republic. Lackers who makes

('17 Comm.) is city editor at the *Idaho Press*. Before that, she was managing editor at the *Woodinville Weekly* and a reporter at the *Whidbey News-Times*.

KARL KROTKE-CRANDALL ('21 PhD Hist.) won the WSU Academic Outreach and Innovation's student-nominated 2021–22 Excellence in Online Teaching award. Krotke-Crandall became a lecturer in 2021 for the WSU Department of History, where he teaches Global Campus courses.

A partnership for future engineers

BY LISA RALEIGH

When Edmund O. Schweitzer III received his doctorate from Washington State University in electrical engineering in 1977, he began a promising teaching and research career, first at Ohio University, and then returning to his alma mater in 1979.

Back in Pullman, he was also busy at the workbench in his basement—designing a device that would soon advance the power industry.

Schweitzer's invention—the world's first digital protective relay—would ultimately replace the less-efficient mechanical relays used at the time to prevent power outages and blackouts; not only did his relay interrupt the flow of electricity through a power line during a fault, it also quickly pinpointed where it occurred. This was a technological breakthrough for the power industry.

Schweitzer left his faculty position at WSU in 1982 to focus on the new Pullmanbased company he founded—Schweitzer Engineering Laboratories (SEL)—building it into a leading designer and manufacturer of digital protective relays and other devices to monitor, automate, and control electric power systems. Today, nearly every utility in North America uses SEL products, as do hundreds of industrial and commercial power enterprises in 168 countries. As a result, SEL is one of the Palouse's largest employers and has more than 5,500 employees worldwide.

As the company has grown over the decades, so has Schweitzer's generosity to WSU, with gifts benefitting multiple programs across the entire system. And, in parallel, the company has also benefited from steadily increasing numbers of engineering students whom SEL recruits as both interns and permanent staff. Nearly 450 WSU alumni currently work at SEL.

This pipeline creates an appreciable advantage for SEL in the highly competitive

market for engineers. It's also a major win for WSU engineering students who gain practical experience as interns and the opportunity to launch professional careers with an industry leader.

Schweitzer and his wife, Beatriz, have given philanthropically to WSU personally for the past three decades and their generosity has been aligned with investments from SEL. Together, the Schweitzers and SEL have invested nearly \$25 million in the university, impacting nearly every WSU campus and college.

In 2017, a \$1.5 million commitment created the Edmund O. Schweitzer III Chair in Power Apparatus and Systems in the Voiland College of Engineering and Architecture. Their largest and most recent investment in April of \$20 million—\$10 million from the Schweitzers and \$10 million from SEL—will become Schweitzer Engineering Hall. [see sidebar]

The Schweitzer Endowed Chair represents yet another significant cross-current between WSU and SEL: The current chairholder is WSU First Lady Noel Schulz, who is a nationally recognized expert in power systems. Her connection with the Schweitzers and SEL goes back more than two decades, throughout much of her career as a pioneer in power systems engineering. In fact, this connection was part of the impetus for her husband, Kirk Schulz, to consider applying to become WSU president.

With the most recent investment in WSU's Voiland College from the Schweitzers and SEL, this beneficial partnership will only deepen and grow. "We are beginning a new chapter in this storied collaboration between WSU, Ed and Beatriz Schweitzer, and everyone at SEL," says WSU System President Schulz. "This is a wonderful example of how a dean's vision and a donor's passion can align to create transformational opportunities for WSU and in turn, for the world we serve."

Schweitzer Engineering Hall, designed for maximizing student success, will be the first step in a major reenvisioning of the engineering and design precinct on campus, with numerous older buildings slated for either demolition or renovation.

Efforts to revitalize facilities began more than four years ago and, in 2019, a group of Voiland College alumni and donors began exploring building and financing options. Working with university leadership, the group developed a precinct plan, a 10-year project that aims to renovate older structures and construct four to five new buildings, with student preparation and technology needs at the forefront. Schweitzer Engineering Hall will be the cornerstone of the precinct.

"We are excited to develop Schweitzer Engineering Hall, a showcase building that will attract students and faculty to WSU—where students want to come to learn and faculty want to work," said Voiland College of Engineering and Architecture Dean Mary Rezac.

Did you know?

- Enrollment in the Voiland College of Engineering and Architecture has grown to more than 5,000 students, including about 35 percent who are the first in their family to attend college.
- The average WSU engineering and architecture building was built or last renovated 54 years ago.
 During that time portable electronics, personal computing, email, the Internet, cell phones and 3D printing were developed.
- The \$20 million Schweitzer/SEL gift is the largestever private investment in the Voiland College, and among the top five largest private commitments to WSU overall.
- The plan for Schweitzer Hall calls for collaborative maker spaces; rooms for clubs and classrooms; spaces dedicated to advising and tutoring; design studios and learning labs; and an open floorplan that encourages interaction, collaboration, and community.
- Numerous Voiland College alumni and friends are supporting ongoing fundraising efforts with a goal of groundbreaking by 2024. For more information, go to vcea.wsu.edu/give/building-success-campaign.

Schweitzer is a recipient of the WSU Regents' Distinguished Alumnus Award, and a fellow of the Institute of Electrical and Electronic Engineers (IEEE). In 2012, he received one of IEEE's highest awards, the Medal in Power Engineering. He was inducted into the National Inventors Hall of Fame in 2019, is a member of the National Academy of Engineering, and a recipient of WSU's Alumni Achievement Award and Purdue University's Outstanding Electrical and Computer Engineer Award.





CLASSNOtes



Back in 1981, GARY RUBENS ('22 Psych.) was accepted into Washington State University but he couldn't afford to attend. Decades later, Rubens not only made his own college goals a reality, he has also helped many others get a college degree.

Rubens entered the workforce instead of attending WSU, using blue collar mechanical skills he'd picked up from vocational and technical college courses. He eventually built a successful online lighting supply company that was bought by home improvement retail giant Lowe's.

Despite his family's financial struggles growing up, Rubens's mother found ways to be generous, inspiring her son to follow the same.

Now a successful investor and philanthropist, Rubens has helped thousands of financially challenged Washington residents afford college through his family foundation and giving to College Success Foundation scholarships.

Since 2015, he has also given more than \$31 million to the Washington State Opportunity Scholarship—a public-private partnership in which the state matches donated dollars to support financially disadvantaged students—making him one of the program's biggest supporters.

While he was supporting scholarships, Rubens got the idea of returning to get his own degree. He enrolled in WSU Global Campus and after several years of juggling his busy schedule and classes, Rubens became a Cougar alum.

Rubens crossed the Beasley Coliseum stage at the Pullman campus commencement in May and several of his fellow grads who have received scholarship help from his foundation were right there with him.

BY RJ WOLCOTT

Inmemoriam

HARRY E. GOLDSWORTHY JR. ('36 Ed.), 107, February 16, 2022, Riverside, California.

DARLINE L. KINGMAN-WEIGANG ('42) Busi.), 98, July 9, 2018, Wenatchee. **BONITA THELMA ROBERTS** (x'42 Home Econ.), 101, January 21, 2022, Spokane. IRMA PIOVESAN ROONEY ('45 Spanish), 98, April 21, 2022, San Diego, California. PATRICIA MAY LINDMAN ('47 Fine Arts, Kappa Kappa Gamma), 93, October 10, 2018, Liberty Lake. JANE LESLEY LUSK ('47 MS Hort.), 104, April 29, 2022, Starkville, Mississippi. ELLEN H. KUBOKAWA ('48 Pharm.), 96, December 22, 2022, Seattle. DUANE MAXWELL LOOMIS ('48 Music), 93, August 2, 2018, Portland, Oregon. MARION L. SHINN ('48 Busi.), 101, March 18, 2022, Moscow, Idaho. DORIS WILSON-ROWE ('48 Zool.), 95, January 31, 2022, Rancho Palos Ver, California. ROZANNE B. WINTERS ('48 Psych., Alpha Gamma Delta), 95, April 3, 2022, Spokane. SANDY HILTON NELSON ('49 Elec. Eng.), 90, March 23, 2016, Spokane. NANCY MASON PARIS ('49 English), 94, May 1, 2022, Coupeville. PATRICIA ANN PATTON ('49 Soc. Stu.), 94, January 11, 2022, Federal Way. ARLIE M. UPDEGRAVE ('49 Ag. Eng.), 93, May 21, 2018, Moses Lake.

ARLENE "ARNIE" WINONA ANDERSON ('50 Home Econ., '52 Ed.), 94, January 13, 2022, Lacey. BETTY JO (BAKER) BARNEY ('50 Home Econ.), 91, May 5, 2020, Green Valley, Arizona. SAMUEL K. KAMAKA JR. ('50 Entom.), 99, March 15, 2022, Kaneohe, Hawaii. VIVIENNE M. MCNAMARA ('50 Socio.), 89, May 4, 2017, Sumner. CAMILLA M. O'SHAUGHNESSY ('50 Socio.), 92, February 6, 2021, Spokane. JAMES HENRY BREWER ('51 Econ.), 94, May 4, 2020, Denver, Colorado. DON K. BURNS ('51 Busi.), 92, November 30, 2021, San Diego, California. BARBARA J. CHAMPION ('51 Ed.), 96, October 22, 2021, Moses Lake. DAVID A. JOLLY JR. ('51 Ag. Eng.), 94, March 30, 2019, Coupeville. DONALD WARD KOBELIN February 16, 2016, Beaverton, Oregon. LEILA LOUISE MARTIN ('51 Home Econ.), 92, February 19, 2022, Bellevue. WILLIAM E. MINSHALL ('51 Geography), 90, December 24, 2018, Cloverdale, Oregon. JAMES W. SHATTUCK ('51 Phys. Ed.), 96, July 21, 2021, Ashland, Oregon. DON CASSADY ('52 Arch.), 94, August 21, 2021, Vancouver. GLEN A. HELLENGA ('52 Ani. Sci.), 87, June 10, 2017, Arvada, Colorado. JOHN A. HOLROYD ('52 Math.), 91, March 21, 2022, Tacoma. WILLIAM G. PETERS ('52 Hort.), 91, July 7, 2021, Seattle. STERLING **SWANSON** ('52 Busi.), 89, March 19, 2020, Mountain View, California. C. DOUGLAS "DOUG" BOHLKE ('53 Poli. Sci., Lambda Chi Alpha), 91, April 29, 2022, Olympia. BARBARA INEZ GROSS ('x53 Lib. Arts, Alpha Delta Pi), 90, February 17, 2022, Seattle. VIRGINIA L. NORDMAN ('53 Soc. Stu.), 90, July 16, 2021, Tumwater, PHILIP M. PHIBBS ('53) Poli. Sci.), 90, March 21, 2022, Tacoma. **GERALD R. CUMMINGS ('54 Wildlife** Biol.), 84, July 25, 2016, Red Springs, North Carolina. BOB MAX HINRICHS ('54 Ani. Sci., Alpha Gamma Rho), 90, May 9, 2022, Pullman. GERALD C. SCHWANKL ('55 Arch.), 89, October 22, 2021, Lopez Island. ROSEANNE SKAAR ('55 Gen. Stu.), 84, February 16, 2018, Hutchinson, Minnesota. WILLIAM R. ANDERSON ('56 Mech. Eng.), 84, July 3, 2018, Littleton, Colorado. **DENYSE JOYCE JOHNSON ('56 Fine** Arts), 88, April 25, 2022, Jamestown, North Dakota. HAROLD RAY MURRAY ('56 Civ. Eng.), 88, March 7, 2022, Vancouver. LENORA EILEEN PIXLEY ('56 Home Econ.), 87, January 13, 2022, Colorado Springs, Colorado. CAROLINE ESSER DADE ('57 MS Plant Path.), 90, April 11, 2022, Meridian, Idaho. WALTER LEMOND JOYCE ('57 Ani. Sci.), 89, September 26, 2018, Newberg, Oregon. **DARLENE FRANCES LUST ('57 English,** Chi Omega), 86, March 15, 2022, Yakima. ROBERT F. PATRICK ('57 Poli. Sci., Pi Kappa Alpha), 86, April 16, 2022, Spokane. GEORGE PLUMMER ('57 Civ. Eng.), 84, April 23, 2019, San Antonio, Texas.

('51 Forest & Range Mgmt.), 90,

PATRICIA PLUMMER (x'57 Gen. Stu.), 80, December 31, 2015, Conroe, Texas. CAROLYN MOOMAW WILHELM ('57 MS Bacterio.), 89, October 17, 2021, Albany, Oregon. MYRON "DEE" DWIGHT HAWKES JR. ('58 Phys. Ed., Beta Theta Pi), September 24, 2020, Renton. RON LORING PYEATT ('58 Arch.), 87, March 12, 2022, Bothell. ERNEST G. ROBISON ('58 Hort., Alpha Gamma Rho), 84, July 29, 2020, Chelan. KEVIN JOHN SCANLAN ('59 Phys. Ed.), 87, December 2, 2021, Fox Island. NEIL DOUGLAS SMITH ('59 Wildland Rec., '61 MS Wildlife Biol.), 85, March 29, 2022, Silverdale.

WILLIAM F. BROWN ('60 DVM), 87, May 16, 2022, Delta, Colorado. DAVID FREDERICK BURG ('60 MA English), 85, November 6, 2021, Lexington, Kentucky. ROBERT W. HATFIELD ('60 Kinesio., '65 MAT Phys. Ed., Sigma Nu), 83, October 1, 2021, Belfair. CLAYTON W. VIEBROCK ('60 Ag.), 80, October 3, 2016, Moses Lake. HARLEY BOYD WIVELL ('60 Soc. Stu.), May 21, 2021, Shelton. DON H. **DUNCAN** ('61 EdD), 94, April 4, 2022, Salem, Oregon. ALAN L. HEFFRON ('61, '64 MS Hort.), 84, March 19, 2022, Outlook. ARTELL J. LOVELL ('61 Mat. Sci.), 88, March 28, 2022, Vancouver. JERRY EDGAR BROWNELL ('62 Ed.), 86, August 23, 2021, Tacoma. MARILYN H. **DRENGSON** ('62 Busi., Ed.), 86, September 15, 2021, Woodland Hills, California. DAVID OWEN JAMES ('62 DVM), 85, September 26, 2018, Billings, Montana. WILLIAM RAY MELTON ('62 Hort.), 82, July 5, 2020, Olympia. JACQUELYN R. REITER ('62 Gen. Stu.), 81, July 24, 2021, Issaquah. JACOLYN JOYCE RUDE ('62 Elem. Ed.), 80, July 2, 2020, Portland, Oregon. CHARLES "CHUCK" FABIAN CARROLL ('63, '68 MAT Gen. Stu.), 84, January 15, 2021, Colfax. KENNETH J. DEBORD ('63 Civ. Eng.), 81, February 17, 2022, Auburn. SUSAN BARRATT PAGE ('63 Gen. Stu.), 80, April 3, 2022, Santa Cruz, California. JUDITH KAY LINDAHL ('63 Home Econ.), 80, March 21, 2022, Portland, Oregon. JAMES H. BRAUER ('64 Anthro.), 78,



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Inmemoriam

November 30, 2021, Indian Springs, Nevada. DORIS ANN FERGUSON ('64 Ani. Sci.), 75, February 6, 2018, Lewiston, Idaho. JOHN MERKEL JR. ('64 Ani. Sci.), 77, March 13, 2020, Beaverton, Oregon. RALPH E. MILLER ('64 Chem.), 79, March 22, 2022, Tacoma. HERBERT R. HINMAN ('65, '66 MA Ag. Econ.), 78, August 4, 2021, Pullman. JEFFREY B. MANRING ('65 Busi.), 80, October 21, 2021, Deer Park. WENDELL R. WARDELL ('65 Fin., Pi Kappa Alpha), 79, December 15, 2021, Durham, North Carolina. CLARENCE H. HINRICHS ('66 PhD Physics), 87, February 28, 2022, Bend, Oregon. BARBARA JEAN (MARTIN) MARSHALL ('66 Socio.), 78, March 19, 2022, University Place. OLETA GAY NIDEROST ('66 Soc. Stu.), 77, January 26, 2022, Corvallis, Oregon. ROGER BUDKE ('67 Civ. Eng.), 77, May 14, 2022, Portland, Oregon. RICHARD "DICK" RAWSON MELHART ('67 Phys. Ed.), 80, May 21, 2022, Vancouver. ALLEN G. WESSELIUS ('67 DVM), 79, March 4, 2022, Centralia. DALE T. HOFFMAN ('68 Math.), 75, March 5, 2022, Bellevue. BARBARA JOYCE MUSELLA ('68 Econ., Kappa Delta), 75, December 11, 2021, Los Angeles, California. ROBERT "ROB" W. TIPLIN JR. ('68 Elec. Eng.), March 15, 2022, Bellevue. **JAMES MICHAEL BEAUCHAMP ('69** Comm.), 76, April 17, 2022, Spokane. CYNTHIA ANN WELLS ('69 Gen. Stu.), 61, March 28, 2022, Tumwater.

GEORGE R. TOMBERLIN ('71 MA Police Sci.), 79, March 11, 2022, Melbourne, Florida. MICHAEL LESLEY BENDIX ('72 Phys. Ed.), 76, March 1, 2022, Walla Walla. LEOTA JOYCE GUSTAFSON ('72 Ed., '90 MA Speech & Hearing Sci.), 72, September 22, 2021, Olympia. THOMAS C. LEHMAN ('72 Zool.), 71, May 24, 2021,

Sault Ste Marie, Michigan. THOMAS A. MOODY ('72 Gen. Stu.), 75, February 24, 2022, Burlington. DONALD CRAIG BRUYA ('73 Police Sci.), 69, December 24, 2021, Elma. RONALD RAMON FISHER ('73 MA Comm.), 85, September 22, 2021, Billings, Montana. GARY A. RIESEN ('73 Econ., Alpha Kappa Lambda), 70, September 3, 2021, Wenatchee. CHARLES ALAN BENSON ('74 Busi.), 77, April 2, 2022, Sequim. JOHN EDWARD BRAY ('74 PhD Chem.), 78, April 4, 2022, Philomath, Oregon. MARIEL A. DAMASKIN ('74 Fine Arts), 70, April 8, 2022, Kailua-Kona, Hawaii. ROBERT E. JEZEK JR. ('74 Psych., Socio.), 68, August 11, 2017, Lynnwood. RONNIE EUGENE COYNE ('75 Ag. Eng.), 75, November 25, 2021, Kennewick. MICHAEL A. HUDSON ('75 Busi.), 70, April 18, 2022, Puyallup. LAURENCE MERRILL SAMS ('75 MA Vet. Sci., '78 DVM), 72, April 5, 2019, Portland, Oregon. RONALD A. BLOCKLINGER ('76 Phys. Ed.), 81, December 24, 2021, Walla Walla. MARTIN WEINER ('76 Ed.), 81, December 6, 2020, Houston, Texas. DAVID VANCE BROWN ('77 MS, '81 PhD Ani. Sci.), 74, March 9, 2022, Cazadero, California, MARION WILMA KOOYMAN ('78 Ani. Sci.), 64, March 29, 2020, Wapato.

GLEN CURTIS DUNHAM ('83 MS Mat. Sci.), 65, April 19, 2022, Frederick, Maryland. FRANCIS NDELEKO MWAKIMA ('84 Entom.), 65, March 31, 2022, Nairobi, Kenya. LOUISA ROSE RIBAUDO ('84 Busi.), 60, September 9, 2021, Kirkland. JOHN W. COMBS JR. ('86 Busi.), 60, October 7, 2021, Grand Coulee. GERALD "JERRY" MICHAEL ANHORN ('89 EdD Higher Ed. Admin.), 83, September 3, 2021, Walla Walla. WILLIAM "BILL" JAMES

WILLIAMS III ('89 Phys. Ed.), 57, May 4, 2021, Moxee.

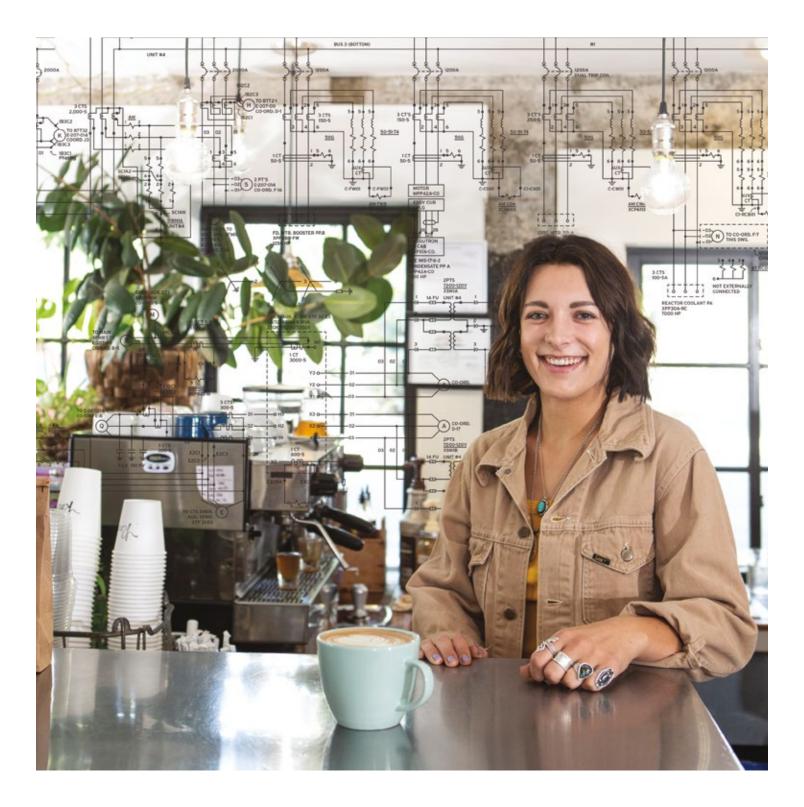
KERBY MATHEW COLE ('92 PhD Eng. Sci.), 75, May 18, 2022, Hayden, Idaho. JEFFREY RONALD GIBBS ('92 Asian Stu.), 52, April 21, 2022, Boise, Idaho. CINDY A. GEISLER ('93 DVM), 57, August 5, 2016, Mercer Island. GREG SCOTT MOFFETT ('94 Finance), 49, March 20, 2020, Maple Valley. BRIAN BATES ('96 Comm.), 47, March 7, 2022, San Jose, California. HAROLD C. GIBSON JR. ('98 MBA), 69, April 29, 2022, Wheat Ridge, Colorado

NICOLE ANN HAVRILEK SCHOK ('02 Human Dev.), 43, March 23, 2022, Phoenix, Arizona.

FACULTY AND STAFF

MAHMOUD ABDEL-MONEM, 83, Pharmaceutical Sciences, 1987-1998, March 8, 2022, Oak Harbor, 5 MARLENE J. ADRIAN, 88, Education, 1973-1983, Las Vegas, Nevada. 🧩 DONALD **ELFVING**, 80, Wenatchee Tree Fruit Research, 1993-2012, January 30, 2022, Meadowlakes, Texas. K HERBERT HINMAN, 78, Economic Sciences, 1980-2008, August 4, 2021, Pullman. **ANDRIS** KLEINHOFS, 84, Crop & Soil Sciences, 1967-2010, May 9, 2022, Pullman. 🛠 INGA KROMANN-KELLY, 95, Education, 1963-1999, May 10, 2022, Seattle. 🛠 STEPHEN LAKATOS, 56, WSU Vancouver Liberal Arts, 1996-2022, May 14, 2022, Portland, Oregon. SE ELEANOR LARSEN, 88, Admissions, 1966-1999, April 6, 2022, Pullman. K RICHARD STEPHENS, 74, Police Department, 1970-1999, May 19, 2022, Albion. **5 JOYCE TAMURA**, 76, Institute of Biochemistry, 1981-2009, January 10, 2022, Moscow, Idaho.

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The lovable, iconic mascot **Butch T. Cougar** always brings smiles and laughs to Coug fans with his antics on field and court at Washington State University. High-fiving 90-year-olds and hugging kids, crowd-surfing the student section and riding his three-wheeler at football games, dancing to marching band tunes and cheering on the teams—Butch shares joy wherever he goes, ever since the first WSU students put on the suit in 1976. And it's more than just sports. Butch's visits to charity events, weddings, schools, and holiday gatherings around the state are guaranteed to light up the place. Dean N. Grevé ('81 Comm.) was the first student dedicated to playing Butch, from 1979 to 1981. He told the magazine in 2020 that being Butch Cougar, too, feels great. "Everybody loves Butch," Grevé said. "You get to bring a lot of joy and happiness and laughs to people. It's liberating."

RATES Give a Gift, AREUPI Get Income for Life



With markets in flux and tax reform on the horizon, would you like to receive a reliable income stream, a charitable income tax deduction, and the knowledge that you are enhancing the future of WSU?

In exchange for a minimum gift of \$25,000, the WSU Foundation would agree to pay one or two people a fixed income for life through a Charitable Gift Annuity (CGA).

Email us at gpoffice@wsu.edu with your age and gift amount and we will provide a free, no-obligation personalized illustration to review with your financial advisor.

Visit <u>foundation.wsu.edu/cga</u> or call 509-335-7883 to learn more about this tax-smart option that secures your future...and ours.

Annuities are subject to regulation by the State of California. Payments under such agreements, however, are not protected or otherwise guaranteed by any government agency or the California Life and Health Insurance Guarantee Association. A charitable gift annuity is not regulated by the Oklahoma Insurance Department and is not protected by a guaranty association affiliated with the Oklahoma Insurance Department. Charitable gift annuities are not regulated by and are not under the jurisdiction of the South Dakota Division of Insurance.

1 person		2 people		
AGE	RATE	AGE	RATE	
70	5.3%	70/75	4.9%	
75	6.0%	75/80	5.5%	
80	7.0%	80/85	6.3%	
85	8.1%	85/90	7.5%	
90+	9.1%	90/95	8.8%	

CGA ANNUAL PAYOUT RATES EFFECTIVE JULY 1, 2022



We can help you leave a legacy at WSU!

Contact the Gift Planning team to learn more about how to support WSU through your will, revocable living trust, and beneficiary designations such as your life insurance, retirement plan, or other accounts.

GIFT PLANNING OFFICE

WSU Foundation 509-335-7883 giftplanning.wsu.edu

MAIL YOUR REQUEST

WSU Foundation PO Box 641925 Pullman, WA 99164-1925

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gpoffice@wsu.edu

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YOU can make a difference at WSU.

Please complete and mail this form.

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