WashU MAGAZINE
AUGUST 2025

The World's *DEADLIEST* Disease

WashU scientists are collaborating to unlock secrets of a millennia-old scourge. Efforts may lead to an increased understanding of and improved treatments for tuberculosis, which is once again on the rise, pg. 20.

AUGUST 2025
VOL. 96, NO. 2

Contents

"The world doesn't need you to be perfect. It needs you to be bold, it needs you to care, and to keep going even when things don't go as planned. So go out there and write your own story – one that only you can tell."

– OLYMPIAN SIMONE BILES, WASHU'S 164TH COMMENCEMENT SPEAKER, STUCK HER LANDING, CONCLUDING WITH THE ABOVE ADVICE FOR GRADUATES.

DEPARTMENTS

IN EVERY ISSUE

FEATURES

Cover: A new WashU initiative — the Mycobacteria-focused Program for Research and Innovation in Science and Medicine — is bringing together experts from multiple disciplines to study mycobacterial diseases including TB to find new treatments. And the new School of Public Health is looking at raising awareness, erasing stigma and addressing the underlying causes of TB. (See feature on pg. 20.)
Cover photo: Matt Miller/WashU

Background: On May 12, the legendary gymnast Simone Biles delivered an inspiring keynote address during Commencement. Biles implored graduates to "put in the work on the days when everything is clicking and you're in your zone, and just as important, put in the work on the days you feel like you're not even in the right arena. When you're consistent, when you bring your best to your practice every day, then you'll be ready for the big moments." Background photo: Whitney Curtis/WashU

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Photo: Sid Hastings/WashU

With you, we can make a world of difference

On May 1, 2025, WashU launched With You: The WashU Campaign, a multiyear, comprehensive fundraising effort that will enable the university to fulfill its bold promise of generational change through vital research, patient care and educational access.

One benefit of serving as chancellor of Washington University is how often I am reminded of the achievements of our faculty, graduates and staff. The people I meet and the stories I hear represent the marriage between intellect and passion. And so often, our alumni are passionate about using their WashU education and training to help the larger world.

But no one who wants to effect change can work alone. Change is more powerful and lasting when we mobilize our collective assets and strive toward a common goal or set of priorities. This idea forms the basis of With You: The WashU Campaign. Through this effort, WashU seeks to secure the resources we need to continue achieving our collective objectives and generating meaningful, lasting change through vital research, patient care and educational access.

A campaign is, by definition, an organized course of action to achieve a goal, and this particular campaign has been years in the making. During that time, WashU has undertaken the deep self-reflection required to examine our strengths and assets, and to identify the areas in which we believe we can make the greatest difference. With You seeks to close the gap between WashU's ambitions and our impact, allowing us to follow through on our commitments to expanding educational access, preparing future-ready leaders, and fostering healthier lives and communities through research and patient care. Success will also give WashU the freedom to chart our own course, and to protect our long-standing commitments to scholarly inquiry and academic distinction.

This issue of *WashU Magazine* features several stories of faculty, alumni and staff who are tackling weighty problems and identifying solutions — including the university's efforts to improve public health through research into tuberculosis and the work being done by several of our alumni to protect and manage their community's water sources, even as significant shifts in climate patterns affect their work. These experts have identified the change that they want to see in the world, and they show up every day to bring about that change.

I encourage you to read the brochure that came with this issue of the magazine, so you can better understand what WashU hopes to achieve with the With You campaign. And I ask you to undertake the thought exercise that the campaign poses: to consider the one change that you think would make a world of difference in how we live, how we work, how we learn and how we prosper as a society. If you wish to share the change you want to see, or read about others' aspirations and interests, please connect with us via our campaign website at withyou.washu.edu.

I believe that WashU has a responsibility as a world-leading university to tackle challenging issues and to continue our legacy of thoughtful change — the kind of change that takes years to plan, years to execute and years to materialize. I am excited to embark on that journey *with you.*

Andrew D. Martin, PhD '98
Chancellor

THE APRIL 2025 ISSUE

"I just received the current issue and wanted to comment on its design. It is very well done. Past issues have been acceptable, but this one is outstanding.

"As a BFA '69 (graphic design) graduate, I have worked in the design/marketing field for over 55 years. Processes have changed and evolved, but good design is still the bottomline.

"Congratulations to you and your staff."

— PAT ESCHBACHER, BFA '69

"I'm a 1976 WashU grad who ended up going to Penn Dental and completing a residency at Beth Israel. I've been practicing as a pediatric dentist for 37 years. And I find the complaints about the name change kind of comical, as I think we've all said 'I went to WashU' plenty of times, and yet, if needed, we'd add 'Washington University in St. Louis.' Just like with many abbreviated famous institutions, folks seem to understand and give our alma mater the respect it deserves. I've been saying 'WashU' for almost 50 years and never had a problem. Rock on, WashU!"

— JEFFREY GINSBERG, DMD, AB '76

Photo: Washington University Archives

"Thank you for the April 2025 issue of *WashU Magazine*. It was very enjoyable. I wanted to comment on the picture of Jimmy Carter on the inside back cover [see above]. I was one of the law students in the seats listening to then-Gov. Carter's presentation. He is a personal hero of mine, especially for everything he did after his term as president."

— JOE GORMAN, JD '78, LLM '85

"Congrats on another spectacular product! This issue is so full of interesting articles … truly a wonderful read. I have enjoyed it so much. Looking forward to future editions."

— BETTE BOYCE MILLER, AB '62

We want to hear from you!

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University Marketing & Communications publishes *WashU Magazine* — three print and six digital issues annually (magazine.washu.edu).

WashU WashU WashU WashUSTL Washington University in St. Louis

Photo: Whitney Curtis/WashU

Researchers for a day

Students from Central Middle School in the Riverview Gardens School District visit the lab of Marcus Foston, associate professor of energy, environmental and chemical engineering at the McKelvey School of Engineering. Participating in the Institute for School Partnerships' Researcher for a Day program, middle-schoolers come to campus for an immersive experience, where they conduct lab experiments, explore related science careers and meet WashU students and faculty.

Photo: Sofiia Briantseva/NCAA

WOMEN'S TENNIS TEAM, MEN'S SWIMMER WIN NATIONAL TITLES

Members of the WashU women's tennis team (above) celebrated the program's first-ever national title May 23 in Claremont, California, after a 4–3 win over Pomona-Pitzer College. The tennis team's feat marked the 27th national title in WashU Athletics history and the second national championship of the 2024–25 academic year. On March 22, **Kyle Wolford, BSCSE '24,** who is in a joint bachelor's and master's degree program in computer science at the McKelvey School of Engineering, won a national title in the 200-yard backstroke with a time of 1:44.15 in Greensboro, North Carolina.

A TRADITION LIKE NONE OTHER

In 1991, the then-fledgling Kathryn M. Buder Center for American Indian Studies held its first "American Indian Awareness Week," culminating in the first-ever Pow Wow celebration on the Danforth Campus. Free and open to the public, the celebration began as an opportunity to experience the sacred ceremonial traditions of Indigenous cultures. The Buder Center Pow Wow has become a cherished event on the spring semester calendar, returning for the 35th time April 12 in the WashU Athletic Complex. The Pow Wow's theme this year was "Liberation: Restoring Connection to Relatives, Land and Stories," emphasizing the importance of reclaiming and honoring Indigenous traditions, culture and ancestral ties.

THE BUSINESS OF HEALTH

Olin Business School launched a new health initiative that aims to place WashU as the premier institution for the business of health. Led by **Patrick Aguilar, MD, EMBA '20,** the initiative promises to address multifaceted challenges in the health industry by forging collaboration with innovators throughout WashU and the St. Louis region, preparing students for effective careers in the business of health and spurring commercialization opportunities. Four key pillars are driving the initiative: research and scholarship, curricular design, commercialization, and executive education. "Patients, populations and policies can all benefit from the perspective anchored in Olin's research and education mission," says Olin Dean **Mike Mazzeo.** "We can teach physicians the skills they need to lead, improve operations through systems and help bring new therapies to patients."

WASHU PEOPLE

Apryle M. Gladney was appointed vice chancellor and chief human resources officer, effective April 1. Gladney, who has served in the role on an interim basis since October 2024, manages the university's Office of Human Resources teams, which include recruitment and talent acquisition, benefits and well-being, compensation, HR operations, reporting and compliance, communications and engagement, and professional development and leadership excellence.

WashU rises in global patent ranking

Once again, the National Academy of Inventors named WashU to its Top 100 Worldwide Universities Granted Utility Patents list. This time, the university jumped 18 spots, placing 38th overall with a total of 82 patents awarded in 2024. The previous year, WashU was 56th on the list, with 56 patents. Released annually by the academy since 2013, the list spotlights the top universities holding U.S. utility patents, a leading indicator of research and innovation taking place within academic institutions.

LOVE LETTERS FROM HOWARD NEMEROV

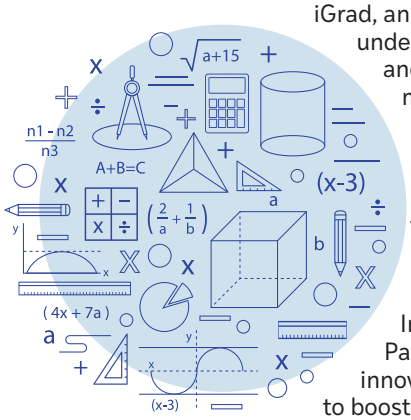
From 1972 to 1990, poet and professor **Howard Nemerov** wrote frequent letters to a woman named **Joan Levy Coale** of Philadelphia, with whom he was in a secret and intimate relationship. The letters centered on his work, family and life at Washington University. And she kept them. It was her dying wish, says her son **Howard Coale,** that someday they'd be returned to WashU. "She would say over and over, 'You know, my letters from Howard must go back to Washington University Archives,'" Coale says. "She made that very clear."

Joan Levy Coale died Feb. 25, 2024, at age 97, and less than a year later, on Feb. 13, 2025, Howard brought all 461 letters to St. Louis and donated them to WashU Libraries. Stanford scholar **Alex Nemerov,** the poet's middle child, was also present. WashU Libraries' **Joel Minor,** curator of the Modern Literature Collection and manuscripts, now has the awesome task of digitizing the letters so they can be available for scholars.

More about the letters appeared in the June digital issue of *WashU Magazine* at source.washu/edu/2025/05/a-man-of-letters.

TEACHING STUDENTS FINANCIAL WELLNESS

The Division of Student Affairs has launched a financial wellness program that aims to improve the financial literacy of all students. Led by **Andrea Stewart-Douglas,** director of Student Financial Wellness, the program has classes and workshops on topics ranging from budgeting to taxes to investing. Stewart-Douglas also provides one-on-one coaching and connects students to financial resources and tools like iGrad, an online platform that helps students understand financial aid, credit reports and tax documents. "Every student — no matter their background or their income level — needs to learn how to manage their money and plan for the future," Stewart-Douglas says.



HELPING KIDS IMPROVE MATH SCORES

In 2019, WashU's Institute for School Partnership (ISP) launched Math314, an innovative instructional program designed to boost K–12 math instruction and student achievement. One of the first districts to partner with ISP was the Ritenour School District in north St. Louis County, where WashU instructional specialists partnered with middle school math teachers to develop lessons and assessments. And the results are promising. The percentage of middle school students in the district who scored proficient or advanced in math in statewide testing for public schools improved from 16% in 2021, the first year that Ritenour fully participated in Math314, to 24% in 2024. That represents an improvement rate of 50% and surpasses the state average of 18%. Equally important: Students reported greater confidence and joy in math.

"You might think that as the rigor increases, the excitement would decrease. But it's the opposite," says **Alexander Terrance,** principal of Hoech Middle School. "When I ask kids, 'What's your favorite subject?' I'm blown away by the number of students who say they really enjoy math now."

In addition to Ritenour, Math314 is working with math educators in the Clayton, Hazelwood, Kirkwood, Mehlville, St. Charles, University City and Webster Groves school districts.

Exposing new methods for developing crops

Kevin Cox, assistant professor of biology in Arts & Sciences, has discovered a low-cost way to study the detailed makeup of plant cells — a method that in the future could aid in the development of more resilient, higher-yielding and faster-growing crops. Expansion microscopy (ExM) enlarges biological tissues by embedding them in a hydrogel. As the hydrogel swells, so do the cellular structures, making tiny details easier to see under a standard microscope. While ExM has been used in animal research, applying it to plants has been challenging because plant cells have rigid cell walls made of cellulose. Cox and his team tackled this issue by using protoplasts, plant cells with their walls removed. The result is ExPOSE, a method that simplifies the study of plant proteins, RNA and other biomolecules.

Photo: Patrick Bowey/Donald Danforth Plant Science Center

NEW ANTIBIOTIC COMPOUNDS

A team of chemists, biologists and microbiologists led by researchers in Arts & Sciences has found a way to tweak an antimalarial drug and turn it into a potent antibiotic, part of a project more than 20 years in the making. Importantly, the new antibiotic should be largely impervious to the tricks that bacteria have evolved to become antibiotic resistant. The lead author of the study, **John Georgiades, AB '24,** took over the project while he was an undergraduate in the lab of **Tim Wencewicz,** associate professor of chemistry. "The collaborative atmosphere at WashU made this project possible," says Georgiades, now a graduate student at Princeton University. "There are more than 20 people on this paper from several institutions, and they all played a part."

FOOD ALLERGY FINDING

Most of the time, the intestinal immune system can distinguish friend from foe. But for approximately 30 million Americans with food allergies — including 4 million children — immune cells mistakenly identify food as a threat. Now, researchers at WashU Medicine have identified, in mice, that essential immune cells in the intestine prevent an unwarranted attack against harmless food allergens. In the absence of such cells, mice experienced gut inflammation and an allergic response to food. The finding may lead to future treatments for food allergies.

CREATING A FEDERAL GOVERNMENT

Peter Kastor, the Samuel K. Eddy Endowed Professor in history in Arts & Sciences, has spent years collecting and digitizing records for 37,000 people who worked for the federal government between 1789 and 1829. The resulting digital archive, called Creating a Federal Government, is now available online. Many students and collaborators helped build the archive, which involved transcribing handwritten material and building historical maps. "I think these stories transform our understanding of the founding era," Kastor says. "The founders emerge as people who, yes, cared about high political theory. But they also cared about managing a government."

MACHINE LEARNING AND HIV

Nearly 85% of the 1.7 million adolescents with HIV live in sub-Saharan Africa. Although the Ugandan government provides free antiretroviral treatment, adherence to the regimen is low in the 10-to-16-year-old age range, making the virus more likely to spread. **Claire Najjuuko,** a doctoral student in WashU's Division of Computational & Data Sciences, has developed a machine-learning model to predict which young people would be less likely to take their medication. The model accurately identifies 80% of adolescents at risk of nonadherence while lowering the false alarm rate to 52%, much lower than an earlier model. With such knowledge, health-care practitioners could put in place more effective interventions.

For more on university research and faculty achievement, visit source.washu.edu/news.

Weighing the risks

Demand for GLP-1 weight-loss medications like Ozempic and Wegovy continues to surge, but information is sparse on the drugs' effects across the body's organs and systems. In response, scientists from WashU Medicine and the Veteran Affairs St. Louis Health Care System evaluated outcomes among more than 2 million people with diabetes taking such medications. The researchers confirmed many benefits, including reduced risk of seizures, addiction and dementia. But users of the injection medications may also face increased risks for pancreatitis and kidney conditions, among other health problems. While these adverse effects are uncommon, they can be very serious; physicians must be vigilant for signs of pancreatitis and monitor kidney function among people taking GLP-1 medications.

TARIFFS AND GLOBAL SUPPLY CHAINS

Traditionally, governments have used tariffs to encourage domestic production or exert political leverage. Research by **Panos Kouvelis,** the Emerson Distinguished Professor of Supply Chain, Operations, and Technology at Olin Business School, examined why President Trump's 2018 tariffs did not accelerate investment in domestic manufacturing. Kouvelis and co-authors found that tariffs imposed on raw materials like steel and aluminum had detrimental effects on reshoring investments in part because manufacturers faced increased costs to produce finished goods. The findings serve as a warning for how recently enacted new tariffs may impact U.S. production going forward.

A NEW CENTER FOR RARE DISEASES

Patients in Missouri and surrounding states with unexplained symptoms often turn to WashU Medicine for answers. The new Center for Rare, Undiagnosed and Genetic Diseases brings together researchers and affected families, creating a collaborative network to drive innovative research and accelerate drug discovery. The center fosters an interconnected ecosystem to help improve genetic diagnostic testing, implement genetic newborn screening, support clinical trials for rare disease therapies and bring new treatments into the clinic.

YOUR ATTENTION, PLEASE

A new neural network model created by psychological and brain sciences researchers in Art & Sciences helps explain what happens in the brain when people need to focus amid many distractions. The model reveals that people focus not by concentrating extra hard on a subject, but by ignoring inputs that they found distracting in the past. When researchers asked study participants to do a word-matching task while facing several distractions, the participants tended to reduce their level of attention on the distractions, rather increase their attention on the task itself.

Illustration: Monica Duwel/WashU

Preparing for future pandemics

Two new grants support efforts at WashU Medicine to design vaccines and drugs for understudied virus families.

Scientists at WashU Medicine are laying the groundwork to rapidly respond to potential future pandemics caused by viruses from five understudied families. The effort — whose aim is to develop strategies and tools to produce vaccines and antibody-based therapies in advance of future pandemic threats — is supported by two major grants from the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), which together will add up to more than $90 million in funding over the next three years.

One grant, totaling about $15.6 million per year for three years, is focused on the alphavirus and flavivirus families. These mosquito- and tick-borne viruses cause arthritis, brain infections and congenital disease, and the best-known members include the dengue, Zika, West Nile and chikungunya viruses. The other grant, for $14.7 million per year for three years, takes aim at virus families that include respiratory pathogens such as the mumps virus, as well as insect-borne viruses that cause high fevers such as Oropouche and Rift Valley fever viruses. Both grants are part of NIAID's newly established Research and Development of Vaccines and Monoclonal Antibodies for Pandemic Preparedness (ReVAMPP) Network, and WashU Medicine researchers are leading two components of the network.

"If the COVID-19 pandemic taught us anything, it's that being prepared saves lives," says **Michael S. Diamond, MD, PhD,** the Herbert S. Gasser Professor of Medicine and the director of the ReVAMPP flavivirus and alphavirus program led by WashU Medicine. Diamond is also a professor of molecular microbiology and of pathology and immunology at WashU Medicine. "We had some preparation for the COVID-19 pandemic because of previous research on the related SARS and MERS viruses. But there are other viruses with potential to cause pandemics for which we are even less prepared. We don't have specific therapies for any of the flaviviruses or alphaviruses, and we don't know how to quickly make safe and effective vaccines for them, either."

The research programs focus on one or two prototype viruses from each family, using them to develop and evaluate vaccine platforms and antibody-based treatment approaches that can be rapidly adapted to generate safe and effective vaccines and drugs for other members of the families in case of an emerging pandemic.

In addition, the teams are working on optimizing antibody-based treatments. These drugs, commonly used to treat cancer and infections, are a crucial part of the pandemic response toolkit because they can be developed much more quickly than other kinds of drugs for infectious diseases. The challenge is that viruses can develop resistance that undermines their utility, which is why all the antibody-based therapies initially approved for COVID-19 became less useful as the virus evolved and were eventually withdrawn.

"There's no way to predict when and where the next pandemic virus will emerge, so we need to be prepared for all possibilities," says **Sean Whelan, PhD,** the Marvin A. Brennecke Distinguished Professor and head of the molecular microbiology department. Whelan is the director of the ReVAMPP paramyxovirus, peribunyavirus and phlebovirus program led by WashU Medicine. "We're identifying the principles that determine a strong immune response for these virus families, so we can apply those principles to rapidly design and produce protective vaccines as needed."

■ TAMARA SCHNEIDER

QUOTED

What is one skill WashU students should learn? Scholars from the Center for the Environment weigh in.

Photo: Sharon Rhiney/WashU

"Effective communication. This doesn't mean just reading, writing or visualizing things well. It's about developing negotiation, diplomacy and leadership skills – about actually engaging people in conversation."

RODRIGO REIS,
PROFESSOR AT
THE BROWN SCHOOL

"I hope that our students remember to come back to their inner voice and imagination. In student projects, I've seen poetry about microbes, animated microbes and mock interviews with microbes. It's just so cool."

FANGQIONG LING,
ASSISTANT PROFESSOR OF ENERGY, ENVIRONMENTAL, AND CHEMICAL ENGINEERING IN MCKELVEY ENGINEERING

Photo: Joe Angeles/WashU

"How to ask the right questions. We learn a lot about how to answer questions, but we need to think more about whether we're asking the right questions."

KELLY HARRIS,
ASSISTANT PROFESSOR OF OCCUPATIONAL THERAPY AND SURGERY AT WASHU MEDICINE

"The No. 1 skill that I hope my students walk away with is critical thinking. I want them to ask: 'How was this knowledge created? What are the caveats?' And ultimately, 'how do you decide which facts are the most relevant?'"

BRONWEN KONECKY,
ASSISTANT PROFESSOR OF EARTH, ENVIRONMENTAL, AND PLANETARY SCIENCES IN ARTS & SCIENCES

"Not being afraid to try different things. Having a diverse range of experiences early on helps you put things together later in your career in fun and creative ways."

JONATHAN MYERS,
PROFESSOR OF BIOLOGY IN ARTS & SCIENCES

Courtesy photo

L32 POLITICAL SCIENCE 5320: The Politics of Technology and the Technology of Politics

The intersection of technology and politics

Covering everything from social media to bitcoin to AI, a timely and all-too-topical political science graduate course challenges students to think differently.

Social media's rise has dramatically transformed recent elections, reshaping how citizens engage with politics, how politicians connect with constituents and how information flows through society. Yet social media is hardly the first technology to redefine the political landscape.

Throughout history, technological advancements have profoundly shaped political systems and processes, says **Jacob Montgomery,** professor of political science in Arts & Sciences. Examples include the printing press revolutionizing the spread of information and ideas, railroads transforming the logistics of governance, and radio and TV reshaping political campaigns.

At the same time, technology itself is often shaped by political actors through investments in research and development, policies to foster innovation, trade barriers to protect emerging industries and regulations of all kinds, Montgomery explains.

His spring 2025 course, "The Politics of Technology and the Technology of Politics," a graduate-level political science course, examined the intersection of emerging technologies and politics. It was a new course inspired by Montgomery's recent research interests — which include the role of online communications in spreading misinformation and populism, and bias in AI systems — that turned out to be especially timely.

"The world is changing fast," Montgomery says. "One of my goals for this course was to get my students, who are just beginning their PhD studies, thinking about how these new technologies will intersect with our political system.

"The impact of communication technology, AI, satellites and other innovations on politics remains relevant across all areas — whether you study international trade, elections, domestic policy or global relations," he says.

The course covered a lot of ground, Montgomery says. Some of the most popular class discussions were on bitcoin, algorithms — design, effects, use in political communication — and AI fairness.

"As AI systems become more prevalent in government and everyday life, we face critical questions about fairness," Montgomery says. "What constitutes fairness? Who should define it? How can we enforce it? The exciting part for researchers is that we don't have definitive answers yet. This creates tremendous opportunity for groundbreaking work in the field."

One topic that hit especially close to home was digital surveillance and repression. "We spent a whole week studying how repressive regimes, such as Russia and Syria, use digital surveillance," he says. "The next week, the U.S. State Department announced that they would be monitoring graduate students' social media feeds with an eye toward deporting people who were saying things the government didn't like. That was a sobering moment that drove home the urgency of this work."

Along the way, students also learned how to identify interesting research questions, engage existing research and write papers that might be published in scientific journals — skills that will be essential throughout their graduate work.

Like the technology they're studying, the course was experimental in design. And the design resonated, Montgomery says, as the students were engaged, curious and creative. Students researched topics stemming from algorithmic curation of comment sections on social media feeds; the effects of de-platforming extremist groups (that is, kicking extremists off social media platforms); the impact of installing police cameras in Mexico City on crime; and the effects of a TikTok ban in India.

While it's true that technology has always influenced politics and vice versa, Montgomery says the current moment is unique in some ways.

"The recent changes seem to be happening very fast and are far more global than what we've seen in the past," he says. "One of the things we tend to forget is that much of the world came online only in the last 15 years as new smartphone technology and networks rolled out. As things go forward, we'll be increasingly unified, and shocks — like new AI capabilities — will be felt around the world very quickly."

Unlike previous technological advancements, only a handful of technology giants own the infrastructure driving these changes. The potential ramifications of this concentrated control are yet another topic for political scientists to explore.

SARA SAVAT

A NEW BREED OF POLITICAL SCIENTIST

WHO

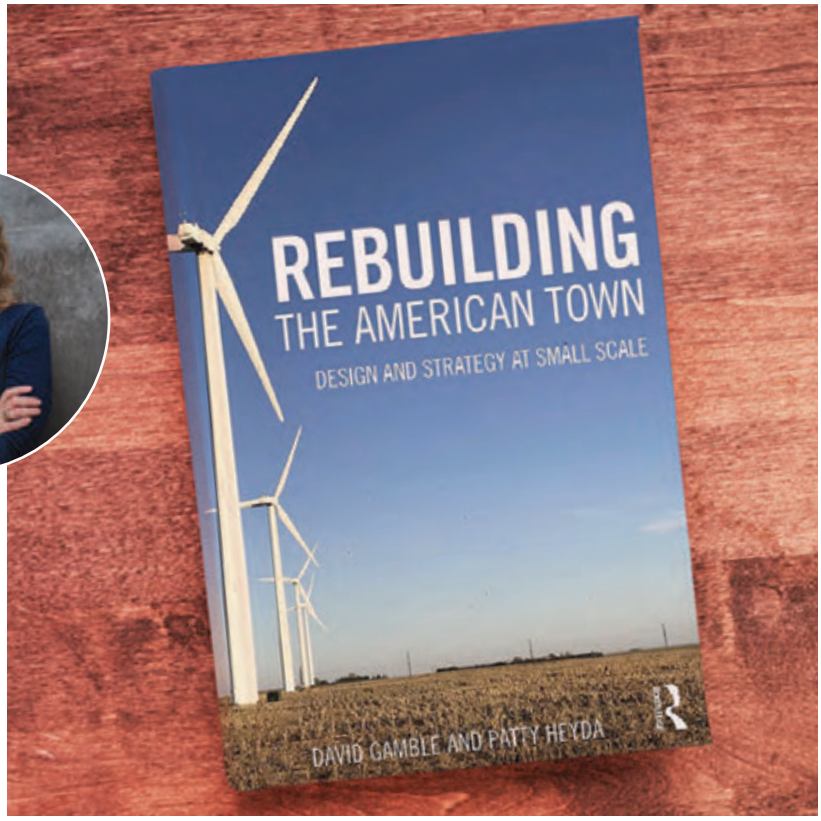
Jacob Montgomery, BA, Wake Forest University; MS in statistical science and PhD in political science, Duke University

RESEARCH FOCUS

Integrating advanced computational methods with core social science tasks, including measurement, theory testing, survey research and causal inference. Specific interests in Bayesian methods, machine learning, American politics and online political communication.

WHAT'S NEXT

In a forthcoming paper in the *Journal of Experimental Political Science,* Montgomery and a team of researchers found that people evaluate source- and content-level cues to determine if ads they see online are political. To a lesser extent, people also attribute political meaning to ads that clash with their views. Given continued calls for expanding regulation of digital political ads, the findings serve as a benchmark for evaluating proposed definitions from policymakers and platforms, Montgomery says.



Big small towns

In *Rebuilding the American Town,* the Sam Fox School's Patty Heyda helps redefine our understanding of the smaller cities that make up the urban landscape.

In 2007, an enormous tornado, the first EF5 ever recorded, struck Greensburg, Kansas. Twelve people were killed. Ninety-five percent of buildings, nearly 1,200 in all, were destroyed or badly damaged.

Today, a rebuilt Greensburg is arguably the most environmentally sustainable town in the United States. The new school, hospital, city hall, arts center and even the John Deere dealership are all LEED-certified — the nation's highest such concentration per capita. Streetscapes foster walkability, support native plantings and collect storm runoff for irrigation. The city-run electrical grid is powered by windmills.

"Wind decimated Greensburg," says **Patty Heyda,** professor of urban design and architecture in the Sam Fox School of Design & Visual Arts. "Now the wind is being harnessed."

In *Rebuilding the American Town* (Routledge, 2025), Heyda and co-author David Gamble, lecturer in urban design at MIT, profile nine small municipalities, all with populations under 50,000, that are meeting local and global challenges with smart, creative and adaptable design.

"Urban studies tend to focus on big cities," Heyda says. "Small towns get overlooked. But a lot of the American landscape is made up of small towns."

Though towns are frequently characterized in geographic or economic terms — hill town, river town, mining town, farming town — Heyda and Gamble propose alternate typologies, predicated on spatial relationships, in their book. Constellations, for example, are clusters of towns that operate interdependently. Satellites are located on the outskirts of larger metro regions; metroposts are embedded within. Outposts arise independently, with economies typically tied to the land.

"We're interested in patterns of urbanization and how they differ contextually," Heyda says. A satellite town and a rural outpost, even of similar sizes, "will have very different dynamics in terms of jobs, population, regional leadership and access to capital."

In Traverse City, Michigan, an outpost of 15,000 on Lake Michigan's Grand Traverse Bay, Heyda and Gamble chronicle how a former state hospital was redeveloped into affordable housing — at once preserving a vast historic complex, adding population density and conserving surrounding lands. Caldwell, Idaho — a bustling Boise satellite — created new communal space by restoring Indian Creek, a central waterway long buried beneath downtown streets.

In San Ysidro, California — a metropost squeezed between San Diego and Tijuana — local nonprofits are working to mitigate the spatial, cultural and health impacts of a mammoth, car-dominated border crossing. "It's a case of urban design and community engagement that's hyper-local in site," Heyda says, "but also at the center of global flows."

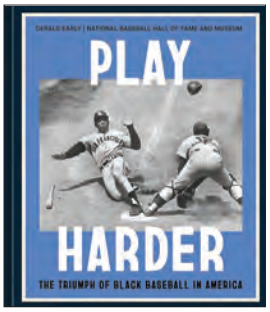
Back in Greensburg, tornado recovery was enabled by a sprawling coalition that included farmers, environmental advocates, government officials, local business leaders, impassioned high schoolers, Kansas State student architects, a Discovery Channel film crew, a motorcycling club and the actor Leonardo di Caprio.

For Heyda, the success of that coalition, and its shared sense of purpose, upends assumptions about red-vs.-blue state political divides. "Urban design strategies are not defined by party," she says. "Greensburg is a small, religious farming community that built back in the most progressive way possible. People there understand the land. They understand responsibility. They understand planning for the future.

"Towns do what they need to do to take care of their people," Heyda says. "In a small town, there's a totally different level of accountability. If you implement a new program or policy, you know by name exactly whom it's going to impact."

■ LIAM OTTEN, BFA '93

FACULTY



Play Harder: The Triumph of Black Baseball in America

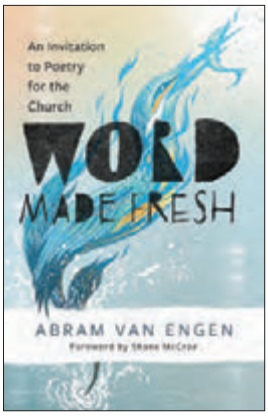
GERALD EARLY

In *Play Harder*, Gerald Early, the Merle Kling Professor of Modern Letters in Arts & Sciences, explores how Black Americans have shaped baseball for more than 150 years, beginning with the game's earliest days in the Reconstruction era. Early dives into the formation of the Negro Leagues, through Jackie Robinson's breaking of the color barrier and into the present day.

Reimagining the American Union: The Case for Abolishing State Government

STEPHEN H. LEGOMSKY

The first book to argue for abolishing state government, *Reimagining the American Union* exposes state government as the root cause of the gravest threats to American democracy. Some of those threats, writes Stephen Legomsky, the John S. Lehmann University Professor Emeritus, are baked into the Constitution; others are the product of state legislatures abusing their powers.

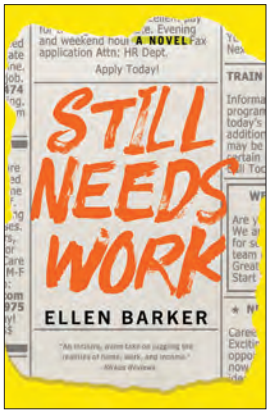


Word Made Fresh: An Invitation to Poetry for the Church

ABRAM VAN ENGEN

Poetry has the power to enliven, challenge, change and enrich our lives. But it can also feel intimidating or confusing. Abram Van Engen, the Stanley Elkin Professor in the Humanities and new director of the John C. Danforth Center on Religion and Politics, shows readers how poetry can reinvigorate Christian faith. (See more from Van Engen on pg. 16.)

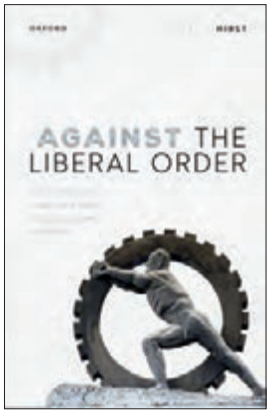
ALUMNI



Still Needs Work: A Novel

ELLEN BARKER

In *Still Needs Work*, Ellen Barker, AB '07, takes an irreverent look at the "bro" tech world, the fraught business of mergers and acquisitions, and the parallel universe of job openings. The book centers on a middle-aged corporate employee named Marianne, who gets laid off while attending a conference. She tries the usual paths to employment and learns she has little credibility in the tech world — but she has her dog and her community.



Against the Liberal Order: The Soviet Union, Turkey, and Statist Internationalism, 1919–1939

SAMUEL J. HIRST

Samuel J. Hirst, AB '04, offers a non-Western perspective on the history of international relations and diplomacy in years between the two world wars of the 20th century. *Against the Liberal Order* presents a novel interpretation of the international order during that time that crosses the borders of historical disciplines and helps readers understand today's world politics.

Calling It Off: Memoir of an Almost Bride

KATHERINE ROSE WOLLER

An "almost bride" herself, marketing consultant Katherine Rose Woller, AB '09, uses her hard-fought growth, honest reflection and ultimately flawed human experience in *Calling It Off* to highlight the realities of saying no to your wedding. She writes about what it's like not to just call off the ceremony, but to choose yourself when you've reached a daunting crossroads.

The search for deeper wisdom and better understanding

"Present topics of interest always have a much deeper past," says **Abram Van Engen,** the new director of the Danforth Center on Religion and Politics.

Check the news today, any day, and you will find a story on religion and politics. Whatever the item, I guarantee it has a long history, and its consequences spread through multiple fields of concern: law, medicine, economics and more.

In 2010, Washington University in St. Louis established the John C. Danforth Center on Religion and Politics to study how these topics relate and to engage the public in understanding them. Public scholarship seeks a general audience, but in a manner different from social media influencers or pundits and opinion makers. At a university, good scholarship grounds and supports all public engagement. We begin in study, but every effort must be expended to engage the public. At a time when the value of universities has come under increasing skepticism, we must speak and listen beyond our campus walls — especially in a crucial area like religion and politics, which touches so many issues and so many lives.

The reach of religion and politics is not hard to explain. Consider, for example, the Bioethics Research Center at WashU Medicine. **James DuBois,** the center's director and the Steven J. Bander Professor of Medical Ethics and Professionalism, started the Healthcare, Values, and the Spiritual Life research program in 2022. The program's first big project, funded by the NIH, examines how faith shapes views toward issues such as prenatal genetic testing, stem cell research and mRNA vaccines. Researchers also are interviewing 180 faith leaders to understand how public health can engage with faith communities in a manner that is respectful and constructive. Meanwhile, the Weidenbaum Center, which supports social scientific research in the fields of public policy, economics, political science and sociology, cannot help but run into the world-shaping views of religion.

Scholars at the Danforth Center on Religion and Politics care about both depth and breadth. They speak wisdom into "breaking" news that whips past us every hour. At the center, we care about headlines, but we also want to bring to attention the unsung ways that religion and politics interact and affect American culture, both now and throughout history. Present topics of interest always have a much deeper past, and many of the center's scholars are experts in that culture-shaping history. We cannot know where we stand now without knowing how we got here.

In recent years, for instance, the media has been absorbed by the support of white evangelicals for President Trump. It requires no academic center to form a view on that matter. But we can engage such a conversation uniquely (and we have). We can examine, for example, the fifth of white evangelicals who have always opposed President Trump — a population the media mostly ignores — and ask what counts as an "evangelical," since definitions shift rapidly. Just as important, the center can remind us that evangelicals represent only one form of Christianity in America, and that Christianity covers only one aspect of religion. What are the views of the rest, and how do they influence politics, ethics, policy and culture?

Through our online journal, *Arc*, as well as in other publications and public commentary, we add history, knowledge and context to current events and concerns. Faculty member **Tazeen Ali,** for example, has written extensively on the way Islam appears in media and public discourse, across politics, television shows and more. **Fannie Bialek,** a faculty member who writes on love, vulnerability and more, speaks regularly with Jewish communities, translating and sharing her work more broadly. Each of our faculty members finds both particular and public audiences.

Whatever the audience or topic, the goal of the Danforth Center on Religion and Politics always remains deeper wisdom and better understanding. We seek foundations on which to build a common life. It takes scholarship to discover that foundation, and it takes wise practices of public engagement to learn from others and share what we discover.

In building on the excellent work of the center, I hope to continue adding breadth to its deep scholarly riches. The center can benefit from and contribute to multiple fields of learning, bolstering history with political science, for example, or combining new data with the cultural examinations of humanistic disciplines. Such breadth will make the Danforth Center even more of what it already is: a leading enterprise for the study of religion and politics in the United States. At the center, we step back, we slow down, and we seek to bring understanding to hot topics of present concern in ways that only a university can — and for a public far beyond our university campus.

■ ABRAM VAN ENGEN

WHO

Abram Van Engen, the Stanley Elkin Professor in the Humanities and chair of the Department of English in Arts & Sciences

PUBLIC ENGAGEMENT

Connect with the Danforth Center at **rap.wustl.edu** to find:

- The online journal *Arc: Religion, Politics, Et Cetera*
- *Arc: The Podcast.* Launched in April, the show features conversations about religion and politics with guests and *Arc* executive director Mark Oppenheimer. New episodes air every other week.
- Links to dozens of books published by center faculty

Photo: Whitney Curtis/WashU

For healthier people and a healthier planet

Working in partnership with communities, WashU launches a new initiative to improve nutrition and health locally, nationally and globally.

Zoom out. Way out. Look at the entire planet. Expansive. Daunting challenges, but major opportunities. That's the landscape WashU's newest and perhaps boldest plan will consider. Through its School of Public Health, WashU is aiming to help build a world that generates health.

"Public health is about creating a world where we can all live longer, healthier lives," says **Sandro Galea, MD, DrPH,** the Margaret C. Ryan Dean of the School of Public Health. "To do that, we need safer food to eat, healthier water to drink, cleaner air to breathe ... safe neighborhoods, safe houses, livable wages ... good medical care when we need it."

The new School of Public Health serves as a hub, bringing in experts from WashU's eight other schools to elevate existing work and create synergies for new collaborations. With that in mind, the Food and Agricultural Research Mission (FARM) was launched in February to address the issue of food — its safety, security, sustainability and more — highlighting how this new culture of collaboration can work.

FARM is bringing together experts from academia and the private and public sectors with the aim of creating innovative approaches to improve nutrition and health. Researchers across the university — in public health, Arts & Sciences, engineering, medicine and social work — will deepen working relationships with farmers, local community members and others involved with food production and distribution.

"The FARM initiative is an exemplar of everything we are building here," says Galea, also the Eugene S. and Constance Kahn Distinguished Professor in Public Health and vice provost for interdisciplinary initiatives. "It is a catalyst to science and scholarship, and an opportunity for transformative change: to train the next generation to understand that this is our role in public health, working in partnership with communities to create a healthier world."

Morven McLean, PhD, MSc, an expert in applied agricultural research and international development, was named the School of Public Health's executive director of networks and innovation as well as the inaugural director of FARM. She joined WashU from Gates Agricultural Innovations, where she served as director of global strategy, regulatory and public affairs. An agricultural scientist with more than 25 years of experience, McLean has served as a technical expert for the U.N.'s Food and Agriculture Organization, the World Bank and the U.S. Agency for International Development.

"Oftentimes when we think of agriculture, we're thinking about it in a school of agriculture, but having FARM anchored in a school of public health is innovative and exciting," McLean says. "FARM is going to bring together different disciplines to address some of the most pressing challenges we have: How do we produce sufficient food for a growing population? How do we do it in an environmentally sustainable way? How do we ensure that we're providing safe, nutritious food that's accessible and affordable to populations here in St. Louis, in Missouri, in the U.S., and also around the world?"

McLean is energized by the transformative work already coming from WashU and the region. "We have the highest concentration of plant scientists anywhere in the world," she says. "Look at the spinoffs coming out of WashU and other institutions here with small startups. I've worked all over the world in the plant sciences, and this is truly a unique ecosystem."

In fact, St. Louis is home to 1,000-plus plant scientists and more than 400 biotech companies and renowned institutions, including the Donald Danforth Plant Science Center and Missouri Botanical Garden. The 200-acre Cortex Innovation District — including BioSTL and BioGenerator — expands St. Louis' agricultural innovation network, providing resources to help startups and entrepreneurs thrive. And vitally important, St. Louis is in the heart of U.S. agriculture — over half of the nation's food production is within 500 miles.

According to McLean, FARM will harness WashU's expertise in multiple disciplines, including public health, biology, genetics, engineering, supply-chain management and implementation science. The university already is pioneering research in pest and drought resistance and other genetic crop improvements, microbiome science, nutrition and malnutrition, eco-friendly fertilizers and next-generation medicines inspired by nature.

Launched with support from the Lauren and Lee Fixel Family Foundation, FARM will reimagine the future of agriculture through a multipronged approach — recruiting top researchers, deploying agile funding models, forging interdisciplinary research networks, and uniting academia, industry, the nonprofit sector and government. Among FARM's researchers are **Lora Iannotti** and **Feng Jiao,** both inaugural Lauren and Lee Fixel Distinguished Professors. Iannotti, a professor in the School of Public Health, is co-director of FARM, and Jiao is a professor in the McKelvey School of Engineering.

"The urgency of this moment cannot be overstated," says **Chancellor Andrew D. Martin.** "Hunger, malnutrition and environmental degradation are not distant threats — they are present crises demanding immediate, coordinated action.

"Together, with our partners in St. Louis and beyond, we will transform how we grow food, nourish communities and sustain the environment. The health of regional, national and global populations depends on it."

■ TERRI NAPPIER AND DEB PARKER

In her lab, located in the Steven & Susan Lipstein BJC Institute of Health, Christina Stallings, PhD (left), a professor of molecular microbiology, works with Ananda Rankin, a graduate student in the Roy and Diana Vagelos Division of Biology & Biomedical Sciences, at the bench.

The World's *DEADLIEST* Disease

WashU scientists are collaborating to unlock secrets of a millennia-old scourge. Efforts may lead to an increased understanding of and improved treatments for tuberculosis, which is once again on the rise.

STORY BY JEANNETTE COOPERMAN
PHOTOS BY MATT MILLER

What infectious disease is deadliest worldwide? HIV? COVID-19? Malaria?

The answer is tuberculosis. And it kills more than 3,400 people across the globe every day — nearly 1.3 million in 2023 alone — and that number is rising fast. Without treatment, tuberculosis (TB) literally takes your breath away. Or it moves to your brain, lymph nodes, bones or kidneys — anywhere your blood can carry it.

Here in the United States, we think of TB as a relic of the past, a romanticized and tragic illness in which thin, flushed young women with sparkling eyes (they had a fever, for God's sake) spat blood into lace handkerchiefs, said wan goodbyes and died. But TB is eradicated, right?

TB did come under tighter control in the U.S. in the 1950s, thanks to public health efforts and the discovery of the antibiotic streptomycin. In the 1980s, Reagan-era public health cuts and the AIDS epidemic undid that progress, but by 1993, cases were again declining steadily, by about 7% a year. That lasted until 2020, when the COVID-19 pandemic artificially lowered the rate further because no one was getting diagnosed. But the lack of swift treatment helped TB regain momentum. Now, cases nationwide (though still few compared to the rest of the globe) are *rising* around 7% every year — with little public awareness of the resurgence.

But that could change with a new WashU initiative — the Mycobacteria-focused Program for Research and Innovation in Science and Medicine (MycoPRISM) — that's bringing together experts from multiple disciplines. From many vantage points, they will study TB's causes and find new treatments. Meanwhile, the just-established School of Public Health, the university's first new school in a century, will be looking at raising awareness and education, erasing stigma and addressing underlying causes.

Globally, there was a record number of new diagnoses in 2023 — about 8.2 million, the highest number since the World Health Organization began monitoring 30 years ago, according to the *Journal of the American Medical Association* (January 2025). And more than one-fourth of all living humans already have been infected. Often, *Mycobacterium tuberculosis* lies dormant, but any compromise to the immune system can spark it to life, even 80 years after someone is initially infected. And all it takes is one person with infectious TB to spread the disease. Across borders.

Why this is so tough to solve

When paleogeneticists broke open ancient mummies, they found them filled not with human DNA, which had degraded, but with tuberculosis DNA. TB is the disease that has proved immortal.

"TB has been infecting and killing people forever," says Christina Stallings, PhD, a WashU Medicine professor of molecular microbiology and the Theodore and Bertha Bryan Professor of Environmental Medicine. "Yet, we still don't have a hold of it. Why not?"

Because it is ancient, and it has coevolved with us. It's had millennia to practice manipulating our immune system. Because it's airborne, spread by the relentless coughs of people who are infected. Yet in a lab, it grows at a painfully slow rate, which makes it hard to study. Because we have no effective vaccine that protects adults from the disease.

In adults, TB generally hides in the lungs, where it can defend itself from the immune system. In children, whose immune systems are less developed, it travels to other sites in the body. Thankfully, a vaccine exists to protect children against severe complications. But, again, there is no effective vaccine capable of protecting adults from TB.

Because *M. tuberculosis* is so adept at defending itself, the standard treatment can take a full six months or longer. Four different drugs are used, a regimen designed to prevent the bacteria from developing resistance. But these antibiotics make some people sick, so they stop the treatment. Others feel better very quickly, so they stop the treatment.

Still alive in the body, the bacteria can cause the patient to worsen or relapse. And if the drugs are not prescribed or taken correctly, the bacteria will develop resistance to the drugs, making the TB even harder to treat.

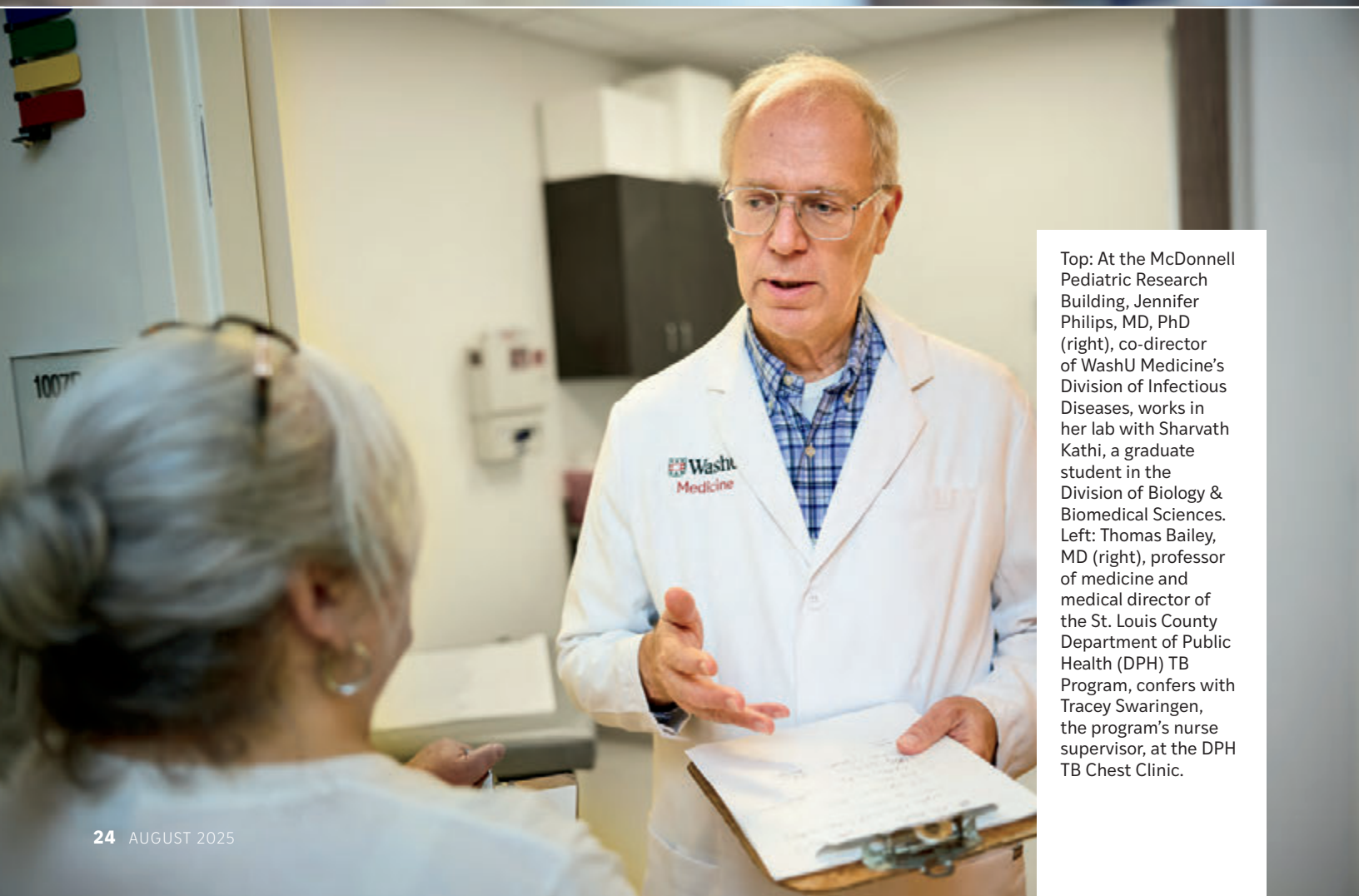
Even if a patient takes the full course of medication and improves, the bacteria might just find a quiet corner and go to sleep. "We have no way to know who actually clears it," Stallings explains. "So it's really hard to battle this pathogen when we can't even tell who's infected!"

In her lab, Stallings looks for ways that *M. tuberculosis* defends itself against the immune system and survives antibiotic treatment. What distinguishes mycobacteria, a subset of microbacteria, is that they are encased in an envelope waxed slick by fatty mycolic acids. That coat is disguise as well as armor: It can actually trick the immune system into aiding and abetting a pathogen it should have killed on sight. And if *that* doesn't work, TB has learned other ways to survive an attack.

Enter the mice.

Top left: Stallings (left) works with postdoctoral research associate Abigail Garrett, PhD. In the Stallings lab, researchers look for ways *M. tuberculosis* defends itself against the immune system and survives antibiotic treatment. Top right: A researcher uses a pipette to isolate a piece of agar containing mycobacteriophages — viruses researchers use to infect mycobacteria in order to study them. Right: A researcher looks at data from the analysis of genomic DNA isolated from mycobacteriophages.

> TB has been infecting and killing people forever. Yet, we still don't have a hold of it. Why not?
>
> — CHRISTINA STALLINGS, PHD



Top: At the McDonnell Pediatric Research Building, Jennifer Philips, MD, PhD (right), co-director of WashU Medicine's Division of Infectious Diseases, works in her lab with Sharvath Kathi, a graduate student in the Division of Biology & Biomedical Sciences. Left: Thomas Bailey, MD (right), professor of medicine and medical director of the St. Louis County Department of Public Health (DPH) TB Program, confers with Tracey Swaringen, the program's nurse supervisor, at the DPH TB Chest Clinic.

TB can infect any warm-blooded animal — two elephants at the Saint Louis Zoo, for example, have been diagnosed in the last 15 years. "They're fine; they were very good at taking their antibiotics," Stallings reports. "But it's the mice we've learned so much from.

"We have this important immune cell in our bodies called a neutrophil," she continues. "Our blood is full of them, and anything that tries to invade us, they kill and eat. When we looked in the lungs of patients with TB, there were lots of neutrophils there eating the TB — but the people were still sick. We saw the same thing in our mice. And what we discovered is that the neutrophils, instead of killing the bacteria, are actually *promoting* their ability to cause disease."

A neutrophil has an arsenal of weapons, and one is an extracellular trap. "Imagine an adorable round cell spitting out a spider web covered in deadly things," Stallings says. "That web is meant to capture whatever it's trying to kill — but mycobacterial TB has found a way to thrive on those deadly nets. It loves them. So we've been able to block the neutrophil's ability to make that net." Luckily, drugs were already being developed to do just that, because the nets also cause problems with arthritis and autoimmune disorders. "We hope to be able to use the same drugs to treat TB."

She can't pause to savor that success, though; far more needs to be discovered. And meanwhile, a new problem is emerging: Other mycobacteria, found naturally in the soil and water, are causing diseases that are even harder to treat. "They have acquired the ability to cause lung infections in patients who have declined lung function or are immunocompromised," she explains. "They generally cause infections only when someone has an underlying condition, but when they do cause infection, it's even harder to treat."

Mycobacterium abscessus is one of them, and easily the worst. Those most affected are patients with cystic fibrosis, and sometimes the infection is untreatable. Stallings draws a deep breath. "It's terrible. And the prevalence of these bacteria is increasing."

Why now? "It's not completely clear," she says. "But Fangqiong Ling (an assistant professor in energy, environmental and chemical engineering in the McKelvey School of Engineering) is looking at the environmental reservoirs," areas of water or soil where they thrive.

This kind of collaboration will be far more frequent, thanks to the MycoPRISM initiative. As co-director, Stallings is pulling together experts: "A lot of people at WashU are interested in mycobacteria — clinicians, basic science researchers, chemists, engineers, public health experts — but we were all functioning on our own in little pockets." Compare notes, and you can build a world-class nexus of expertise.

Changing the face of the epidemic

The initiative's other co-director is Jennifer Philips, MD, PhD, a WashU Medicine professor of medicine and of molecular microbiology, and co-director of the Division of Infectious Diseases. She, too, holds the Theodore and Bertha Bryan Professorship of Environmental Medicine. And her lab is looking at a different piece of the immune system. TB is canny, but if we shore up our defenses, that could help us avoid drug resistance and shorten treatment. "If it took two weeks instead of six months to treat TB," Philips says, "that would change the face of the epidemic."

At the moment, Philips is focusing on the interaction between TB's lipids and the immune system's macrophages, another type of cell that's designed to kill and clear bacteria but fails miserably with TB. There are several types of macrophages, and TB has a different arsenal to combat each one. How do we best fight back?

She's also studying the immune system's T cells, which help make macrophages lethal to invaders. How can we strengthen that interaction? And she's looking at cholesterol, which TB takes from its host for nutrition. "TB modifies cholesterol," Philips says, "in a way our body does not. We think it does this to alter the immune response. We want to understand that mechanism." Also, because the modifications could be detected in the blood, they could give us a new way to diagnose TB. A blood test would be easier and might be more revealing than a sputum sample. And the easier we can make diagnosis and treatment, the better we can control TB's spread.

The challenges to public health

Diagnosing TB and controlling contagion are the purview of Thomas Bailey, MD, a WashU Medicine professor of medicine and medical director of the General Infectious Diseases Clinic, and medical director of the TB prevention program for the St. Louis County Department of Public Health. When a WashU Medicine doctor at Barnes-Jewish Hospital wonders if a patient might have TB, Bailey is consulted. When someone walks into the county health department with symptoms, Bailey takes sputum samples and gets the results of a molecular test back in a day or two, identifying not only the presence of infection but also any mutation on the TB gene that signals resistance to antibiotics.

"Many of these people have seen multiple doctors," he says, "because TB is in such small numbers here that it's possible to complete medical training without ever having seen a case." This makes diagnosis trickier — especially with TB that occurs outside the lungs, as happens in 15% of cases.

"You breathe it in, the organism multiplies, and before the immune system can stop it, it has disseminated throughout your body — in a process that's entirely asymptomatic," Bailey explains. A patient's chest X-ray may be completely normal, because the TB there has resolved, but it has gone on to the brain or bones.

It's hard to convey urgency, Bailey says, because TB is uncommon in the U.S.: "about 10,000 people a year, compared to a worldwide incidence that's close to 11 million. And about three-fourths of the people with TB in the U.S. were born outside the country."

There are other risk factors, though. TB has risen all over the world since the pandemic. Both the SARS-CoV-2 virus and the drugs used to treat it had the effect of suppressing the immune system, making people more susceptible to TB. At the same time, the health-care system was overwhelmed, so public health resources were being pulled from TB to fight COVID-19. And people were afraid to seek treatment for a little chronic cough. Or drenching night sweats. Or, as time went on, the blood they were coughing up.

Since the pandemic, TB cases are rising by at least 7% a year — in a maddening coincidence, at the same rate they previously had been falling. In 2023, the U.S. had 9,600 cases; in 2024, the caseload rose to 10,300. The highest numbers are in populous California, Texas, New York and Florida; Missouri has a low prevalence, only 74 cases in 2023 and 85 in 2024. So it came as a jolt when cases in Kansas rose from 46 in 2023 to 115 in 2024, a 150% increase.

The Kansas outbreak, with cases clustering in Kansas City, was seemingly an anomaly — but there will be more and more anomalies.

"If we're ever going to eliminate TB," Bailey says, "and we still talk about it, we will need an adequate vaccine." He sighs. "It took a lot of money and resources to get TB back under control in the '90s. The standard of care became directly observed therapy, which is resource

intensive." Since studies showed that only about 11% of patients were completing the six-month therapy, health department staff have been literally watching people take their medication. (Now, there's a secure app where patients can videorecord their doses.)

Between 2003 and 2016, to save money and improve compliance, public health experts tried to shorten the duration of therapies and even suggested that antibiotic dosing two to three days a week could be effective. "It took many years," Bailey says grimly, "to figure out that there was an unacceptably high rate of relapse."

Not only does TB's treatment course need to be long, but it could take up to eight weeks just to culture a sputum specimen. Allison Eberly, PhD, is a WashU Medicine assistant professor of pathology and immunology and one of the medical directors of the clinical microbiology lab.

For the past decade, molecular testing has made a huge difference, but she still checks on the cultures for as long as 56 days, "because no test is perfect." She also must send samples to a public health lab, because their advanced molecular techniques and sequencing can detect antimicrobial resistance.

What she finds about 10 times more often than TB, though, are the other mycobacterial infections Stallings referenced. What's needed is a molecular test that can detect those infections, so patients can receive a faster diagnosis.

"No company has a commercially available test to identify non-TB mycobacteria," Eberly says. When a sputum sample comes in, she does a stain, then a TB molecular test, and then she must wait until the isolate grows. Some mycobacteria grow faster than TB, but others take the full eight weeks. Once there is colony growth, she can use the mass spectrometer to identify which of the more than 200 species of mycobacteria she's dealing with.

Because non-TB mycobacterial infections are not reportable diseases in many states, it's hard to track the rate of infection. But, like TB, most of these infections require a three- to four-drug regimen and take months or years to treat.

The stigma of contagion

Not only do people with TB hate the six-month course of antibiotics and their side effects, but they also don't want to admit they have the disease. Why is there still stigma, in this modern age? Because it is scary, contagious and chronic. Because it can remain in your body forever, and the treatment, at least in the U.S., is intrusive, with health department staffers showing up like Mary Poppins to watch you take your medication. And because the 19th-century romance is over: TB is now perceived as a disease of the poor.

Those most at risk for TB, of course, are people whose immune systems are compromised. Maybe they are taking a biologic for rheumatoid arthritis or some other autoimmune disease; or they are HIV-positive, elderly or underweight; or they smoke, have diabetes, or have a head, neck or gastric cancer; or they are receiving an organ transplant; or their kidneys are failing. But the most common risk factors are the usual enemies of health: malnutrition; overcrowding; homelessness; substance abuse; and lack of access to, or distrust of, health care. "TB is both a form and expression of injustice," writes John Green in his sensitive and thorough *New York Times* bestseller, *Everything Is Tuberculosis*.

The dean of the new WashU School of Public Health, Sandro Galea, MD, DrPH, sees TB as an important disease that students should learn about as part of a comprehensive public health curriculum. Issues such as awareness, how to combat stigma, improve diagnosis and access to treatment, persuade people to finish their treatment, and tackle the underlying social forces that put them at risk are core to public health and important for all students to understand well.

"TB is a disease of low-income countries predominantly," Galea says. "And we live in a world that neglects people who have fewer resources and less power." That said, we also live in world where "TB is not going to respect borders. It's going to grow." Travel itself is a risk factor, especially to areas where TB is prevalent, and that list includes parts of China and India, the rest of South and Southeast Asia, Africa, Eastern Europe, the Caribbean, Latin America, the Middle East and the Pacific Islands.

The funding dilemma

Before the federal government's USAID cuts, the global TB response was already about $11 billion short of the funding needed to control infection, Stallings says. Now, USAID is unable to distribute antibiotics to treat TB, which means more death and more contagion — which will be followed by even more death and even more contagion. Shipments of antivirals for AIDS have also been stopped, which means even greater susceptibility to TB, because an immune system needs the T cells being decimated by AIDS to fight TB.

"My entire lab runs on federal funding," Stallings says, her voice tense. "We've already had a couple of grants delayed that were going to start March 1, to develop new antibiotics. We team up with Fimbrion Therapeutics (whose chief scientific officer Thomas Hannan, DVM, PhD '08, is a WashU alum) to translate what we're doing in the lab into treatments. Fimbrion has been developing these drugs, and they're working fantastically. The grant would get them into clinical trials — but the funding is stalled."

Bailey can already hear the arguments for cuts: "'It's just 10,000 people a year, so why do we need so much money to take care of them?' Believe me, it's not to pay health-care workers' extravagant salaries," he stresses. "The people I work with at the health department are almost saintly. They treat patients as they deserve to be treated, and they get paid very little. Some have more than one job." Public health expenses could be responsibly lowered if we had an effective vaccine, but some big federal grants for vaccine development at other institutions are scheduled to be cut.

> With USAID efforts shuttered, we will see the numbers continue to increase — and that will inevitably spread to this country.
>
> — JENNIFER PHILIPS, MD, PHD

By investing in basic research, drug development and public health, the U.S. has been able to control a disease that runs rampant in other parts of the world, Bailey points out. Once TB spreads that far, even the best public health efforts are overwhelmed. "A country like India has so many cases, it can't possibly hope to have TB under control, especially without an effective vaccine."

Galea once co-authored a study that measured the effects of decreased public health funding after New York City's 1975 fiscal crisis and the Reagan-era federal budget cuts. The findings were published in the *American Journal of Public Health*, and the accompanying graph tells the story: *The incidence rate of TB begins to rise sharply after the cuts, drawing a mountain that peaks in 1993 before finally beginning to descend again. HIV and other public health dangers also rose after the cuts. Overall, the downsized budget initially saved New York City $10 billion — but ultimately cost the city more than $50 billion.*

"When you underinvest in public health, there's a surge in illness," Galea says now. "New York had an enormous explosion, and that's exactly what we're heading into right now."

The upshot

In the last five to 10 years, "we have learned so much about how TB infection progresses, its pathogenesis, how it causes disease," says WashU Medicine's Philips. Now, she stresses, we need an effective vaccine. We need more strategies and treatments that can disable TB, outwit multidrug-resistant TB, and strengthen and redirect the immune response. We need to understand what reactivates latent TB. And we need to raise public awareness of the deadliest disease in the world.

"If we are lucky," Bailey says, "and scientific investigation is allowed to continue, and we don't completely destroy people's faith in vaccines" — we can keep control, at least in this country. "But TB is a disease that's highly adapted to humans. If you take your eye off the ball..."

Stallings echoes his worry. "TB has evolved with us — and it evolves faster than we do. We have got to find ways to stay ahead."

If we don't? "With USAID efforts shuttered, we will see the numbers continue to increase — and that will inevitably spread to this country," Philips says.

Already, the death toll is rising, Galea adds. "We could certainly see a return of TB in this country."

KEY FACTS ABOUT TUBERCULOSIS:

≈1.25 million with TB died in 2023

Worldwide, approximately 1.25 million people died from tuberculosis (TB) in 2023 (including 161,000 people with HIV). TB has returned to being the world's leading cause of death from a single infectious agent, following three years in which it was replaced by coronavirus disease (COVID-19). It was also the leading killer of people with HIV and a major cause of deaths related to antimicrobial resistance.

≈10.8 million with TB

In 2023, more than 10.8 million people fell ill with TB worldwide, including approximately 6 million men, 3.6 million women and 1.3 million children. TB is present in all countries and age groups.

Increased risk for TB

Certain conditions can increase a person's risk for tuberculosis:

- diabetes (high blood sugar)
- weakened immune system (for example, from HIV, cancer or autoimmune diseases)
- malnourishment
- tobacco use

Multidrug resistance

Multidrug-resistant TB (MDR-TB) remains a public health crisis and a health security threat. Only about 2 in 5 people with MDR-TB accessed treatment in 2023.

79 million lives saved

Global efforts to combat TB have saved an estimated 79 million lives since 2000.

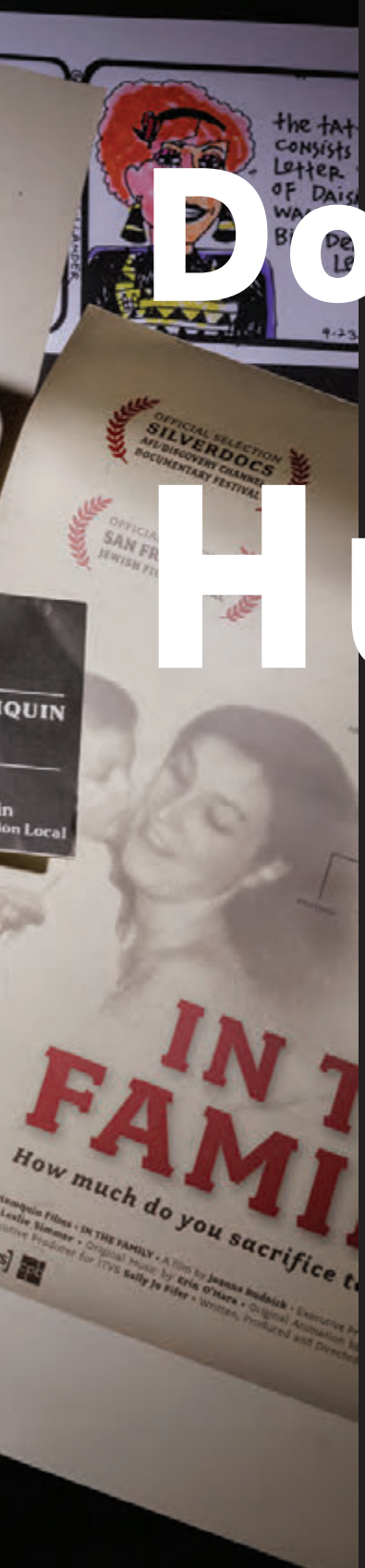
Ending TB

Ending the TB epidemic by 2030 is among the health targets of the United Nations Sustainable Development Goals.

$22 billion needed

US $22 billion is needed each year until 2027 — a target set at the 2023 UN high-level meeting on TB — to meet the UN target of reaching 90% of people in need of prevention, diagnosis, treatment and care services for TB.

Kartemquin Films, an award-winning nonprofit production company, donated 42 years of physical materials from its archives to WashU Libraries' Film & Media Archive in 2021.



For nearly 60 years, Chicago-based Kartemquin Films has been reeling viewers in with authentic stories of hopes and dreams, pain and struggle. After four years of intensive work, WashU's Film & Media Archive is making the company's extensive archive of materials, dating from 1966 to 2008, accessible to scholars and the public.

Documenting Humanity

STORY BY TERRI NAPPIER

PHOTOS BY WHITNEY CURTIS

In 1998, a group of American and Vietnamese veterans joined forces to travel 1,200 miles along the coast of Vietnam from Hanoi to Ho Chi Minh City by bicycle. Some cyclists were able-bodied; disabled riders used special hand-powered bikes, while blind riders joined on the back of tandems. The 16-day trek, sponsored by World T.E.A.M. Sports, challenged the group physically, with uneven terrain and excruciating heat, and psychologically, as long-buried trauma resurfaced and presented as emotional head-winds. The poignant journey is documented in the film *Vietnam: Long Time Coming*, produced by Chicago-based Kartemquin Films in 1998.

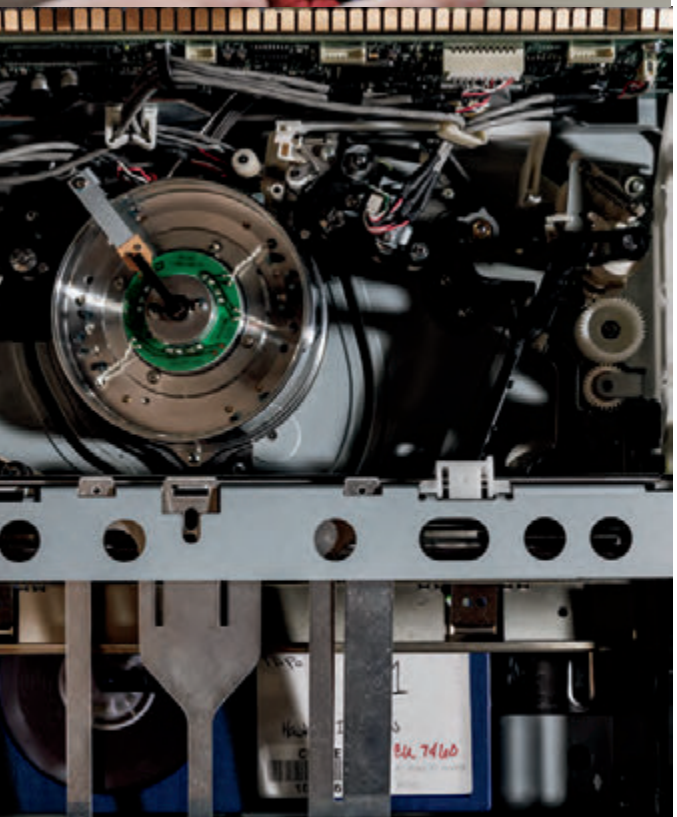
At the documentary's outset, a few of the Americans visit a prestigious girls' school in Hanoi. One young student asks the veterans, "What do you think of the development of Vietnam society today?" Another asks, "Before you come to Vietnam, what do you hear about Vietnam?" And yet another, "You were in Vietnam 30 years ago, what was the most unforgettable memories of y'alls about Vietnam?"

Jerry Stadtmiller, a rifleman in the U.S. Marine Corps from 1967–69, emotionally responds to the last question: "The most regrettable experience I had was having to point a rifle at another young boy, and knowing that if I didn't kill him, he was going to kill me. I pulled the trigger on my rifle. And I've had to live with the guilt of killing other young boys whom I didn't even know. And that's, I believe, been the pain of most Americans for the last nearly 30 years. We were asked to come over here to fight for freedom, and once we got over here, we realized freedom had nothing to do with it."

Vietnam: Long Time Coming, which is part of the Kartemquin Films Collection acquired by WashU Libraries in 2021, addresses the heart-wrenching realities of those who served in or who were directly impacted by the Vietnam War. Throughout the Emmy Award–winning film, subjects move through recollection to reconciliation and, ultimately, redemption.

Spotlighting difficult social and political issues is what distinguishes Kartemquin Films. Since its founding in 1966, the nonprofit has produced 70-plus award-winning documentaries on topics including immigration, labor issues, stem-cell research and women's rights.


TỐC ĐỘ



Kartemquin Films is also known for tackling subjects in an authentic, humane and ethical manner. In a 2016 documentary that examines the history of the nonprofit — *Craft, Community, Change: 50 Years of Kartemquin Films* — Judy Hoffman, a filmmaker, stresses: "We made films we thought our audience needed to see. We would tell stories from the street level." Then filmmaker Steve James emphasizes, "One of the things that is at the heart of what Kartemquin is about, is this sort of deep humanity and understanding people in a more complex way than simply as symbols of some social issue."

Today, nearly 60 years after Kartemquin's founding, the Julian Edison Department of Special Collections Film & Media Archive (FMA) is working hard to organize and make available materials that provide details into the complex processes behind creating such important, deeply human documentaries, archiving an extensive collection of materials from Kartemquin Films dating from 1966 to 2008.

Handling with care — and intentionality

When Kartemquin needed a partner to archive its materials, specifically its work prior to the digital era in 2008, it ultimately chose Washington University because of the FMA's handling of the films of Henry Hampton, AB '61, Hon DH '89, and his extensive Blackside Inc., collection. In 2001, the FMA acquired 35,000-plus items from Blackside, including interviews with key figures in the civil rights movement for Hampton's *Eyes on the Prize*, which is still considered the definitive work on the civil rights movement. The FMA did the cataloging, preserving and promoting of materials for educational and scholarly use by students, faculty and filmmakers, as well as by institutions and researchers in the St. Louis community and beyond.

"We'd done good work on the Hampton Collection — getting grants, promoting it, making it accessible. So when the folks at Kartemquin were looking for a partner, they saw that work and were impressed," says Andy Uhrich, former curator of the Film & Media Archive. "There are differences between the

"One of the things that is at the heart of what Kartemquin is about, is this sort of deep humanity and understanding people in a more complex way than simply as symbols of some social issue."

— STEVE JAMES, KARTEMQUIN FILMS

Opposite page: *Vietnam, Long Time Coming*, a 1998 Kartemquin Films documentary, follows a group of American and Vietnamese veterans on a 16-day, 1,200-mile bicycle journey along the coast of Vietnam. Top and bottom left: Kartemquin Films donated hundreds of audio reels and videotapes of interviews and other b-roll from its vast collection to the Film & Media Archive, which is working hard to digitize these items. Middle left: Kartemquin Films also donated more than 400 boxes of ephemera — film posters, storyboards, promotional photos, soundtrack albums and other special items created for the release of new films.

Blackside and Kartemquin collections, but they're similar kinds of documentaries, both appeared on PBS, and they had similar formats. So it proved to Kartemquin that we could handle large collections, and that we also had a commitment to the social issues that are covered in the documentaries."

Kartemquin conducted an initial inventory of its films and supporting materials. Then WashU Libraries hosted Kartemquin representatives for a site visit and shared how the collection would be handled and promoted. After hours of discussion, Kartemquin chose WashU as the permanent home of its archive.

And so in April 2021, the Kartemquin Films Collection arrived at WashU's West Campus via an 18-wheeler. Thirty-nine pallets held 3,500 cans of film, more than 11,000 videotapes, 2,000-plus audio items and 440 boxes of paper related to the films.

Above and top right: Lydia Creech, a project film preservationist, is among those working in the Film & Media Archive on cataloging and preserving media assets, including 3,500 cans of film, more than 11,000 videotapes and more than 2,000 audio items. Bottom right: Esther Gabriel, an accessioning archivist, is among those who have been sorting and cataloging 440 boxes of paper assets. Now, four years since the collection arrived at WashU, a finding aid of the boxes and folders of paper (their scope and contents) is available for researchers. The goal is to promote access and continue to activate the collection.

After the unpacking and sorting of materials, which took months, Uhrich says, the priority since then has been on separating and cataloging the paper and media assets. Now, four years since the collection arrived at WashU, a finding aid of the boxes and folders of paper (their scope and contents) is available for researchers. And an online searchable catalog for the film, video and audio assets is nearly complete.

"For Kartemquin, the relationship with WashU means much more than a sanctuary for the collective body of work that makes up the Kartemquin catalog," says Betsy Leonard, executive director of Kartemquin Films. "It's knowing that you have partners who share your values of access and democratization of information and who take great care not only to preserve but to activate the collection. Many of the films are evergreen — the issues, challenges and complexity they uplift are as relevant today as when they were made — but creating the finding aid and promoting access is what makes the difference."

Among the thousands of items included on the finding aid are binders and files related to transcripts, promotional materials and study guides for a film called *The New Americans*. A seven-hour miniseries released in 2003, *The New Americans* offers honest, dramatic, often painful observations of the lives of five immigrant and refugee families over the course of four years. One of the opening lines of the series introduces viewers to the hardships to come for those originating from India, Nigeria, Palestine, the Dominican Republic and Mexico: "Once you leave your motherland, the land you are proud of, it's always hard." Or as a woman who brought her family to the U.S. to join her husband lamented: "I'm leaving my most precious treasure behind [my papa]. He's carried me from childhood to adulthood. I want to go, and yet, I'm really conflicted."

Showcasing the courage, painful experiences and enduring hopes and dreams of humanity is a recurring theme in Kartemquin documentaries. *In Mapping Stem Cell Research: Terra Incognita* (2007), for example, filmmakers share the story of Jack Kessler, MD, the head of Northwestern University's neurology department hired to use stem cells to help cure diabetes. But fate intervened when his daughter became paralyzed from the waist down after a skiing accident. It was then that Kessler decided to change his focus to look instead for a cure for spinal cord injuries. The documentary, which won a Peabody Award in 2009, is described by the Independent Television Service as bringing "the stem cell debate to the forefront and [examining] the constantly evolving interplay between the promise of new discoveries, the controversy of modern science, and the courage of people living with devastating disease and injury."

And in *Hoop Dreams*, filmmakers follow William Gates and Arthur Agee, two young African Americans in Chicago, through their tumultuous high school years and their dreams of becoming professional basketball players. The widely acclaimed film, perhaps Kartemquin's most well-known documentary, also was a Peabody Award winner in 1995.

Many Kartemquin Films, however, are not as widely known as *Hoop Dreams*. And according to Uhrich, part of FMA's planning for Kartemquin's 60th anniversary in 2026 is to explore some of these lesser-known work-for-hire films.

"This is where it gets complicated with Kartemquin, and this is not uncommon for documentary filmmakers," Uhrich says. "You make your big movies because the subject matter is important. And then you also do work for hire, so you can get paid. You get hired by the MacArthur Foundation, for example, and you make a short documentary. Or you get hired by, say, an airline pilots union, and you make something for them."

The FMA cannot digitize film in house, but it can digitize videotapes. So Uhrich says they're looking at these lesser-known titles on videotape, such as *Great Expectations: Life and Death in the World of High Tech Medicine*.

“The relationship with WashU means much more than a sanctuary for the collective body of work … It’s knowing that you have partners who share your values of access and democratization of information …”

— BETSY LEONARD, KARTEMQUIN FILMS

Although unfinished, there is a 14-minute demo tape made by Gordon Quinn, who is a founder of Kartemquin and the reason why the film got included in the collection.

“We’re going through and locating all those types of titles and making sure we get them digitized,” Uhrich says. “Because of rights issues, we may or may not be able to put them up online, but we can put them in our catalog record and provide researchers, students, high schools, etc., access to them.”

The FMA is also planning online exhibits, as it did with the Henry Hampton Collection.

“Next year is also the 250th anniversary of the United States, so we’re thinking about civic involvement, too,” Uhrich adds. “We’re thinking about the possibility of having a screening and/or program on some of the things we have in our collection around voting rights, activism, Rosa Parks interviews — and then possibly pairing up parts of the collection with organizations in town and tying it to the 250th anniversary.” The FMA hopes to leverage its long-standing relationship with Cinema St. Louis/SLIFF to raise awareness of Kartemquin’s work and the collection in the greater St. Louis community through free public screenings. (Check http://library.washu.edu/spec/kartemquin/ for more information on upcoming academic and public programming to celebrate the 60th anniversary.)

“We’ve seen time and time again how these films and the way they were made — the consciousness, intentionality and ethical debates during production and editing — are influencing filmmakers today,” Leonard says. “By opening up access to a whole new generation of viewers and filmmakers, WashU and Kartemquin are fulfilling a mission to use documentary as a tool for democracy.”

THE *HEAVINESS* OF

Covering more than 300 miles, the Central Arizona Project brings Colorado River water to central and southern Arizona.

Photo: Shutterstock

WATER

As the western U.S. faces decreasing water supplies, WashU alumni are helping negotiate how this precious resource will be managed and shared in years to come.

BY CLAIRE GAUEN

Kristen Johnson, AB '00, and Catherine Stites, JD '96, both work, as they say, "on the river." The river in question pours through the southwestern landscape more than 100 miles from their offices in Phoenix and Los Angeles, respectively, but it's never far from their minds.

Tens of millions of people across seven states lay claim to water from the Colorado River. Everyone wants their share, including the citizens and industries in Arizona and California that Johnson and Stites represent. But, as climate change encroaches, every year there's less to go around.

"We're in a very delicate dance right now when it comes to the river," says Johnson, the Colorado River programs manager at the Arizona Department of Water Resources. "The seven states are in a very difficult position of trying to negotiate how to manage the river for the next 10, 20 years.

"When you have scarcity and are trying to determine who takes what hit and how big the hits are going to be – well, nobody wants to go first."

For now, the lower basin states – Arizona, California and Nevada – are dancing somewhat in sync, offering back-and-forth proposals for how to amend existing agreements to accommodate a future with less. But with a deadline looming, there's widespread acknowledgment of how quickly that could change. The current operating guidelines for the river expire at the end of 2026.

"In the lower basin states, we're working together cooperatively, but these things can often blow up," says Stites, who is principal deputy general counsel with the Metropolitan Water District of Southern California. "Kristen and I are currently on the same side. It's very collegial and professional, even friendly. We all work very well together on the river," she says, before taking a momentary pause. "Even if we may end up suing each other."

THE LAW OF THE RIVER

In 1922, for the first time in U.S. history, more than three states came together to divvy up a shared river resource. Per the Colorado River Compact, the upper basin — made up of Colorado, New Mexico, Utah and Wyoming — and the lower basin would each receive 7.5 million acre-feet of water annually, with a smaller amount set aside for Mexico. (An acre-foot totals around 326,000 gallons, or the amount of water that it takes to cover an acre of land with one foot of water.)

There was a slight problem with the 1922 numbers, however, that over the course of a century-plus has added up to a major distribution headache. "We know now that the early 1920s was a particularly wet period," Johnson says, with an average flow of around 16 to 17 million acre-feet per year. "Today, we're looking at about a 12-million-acre-foot river. And in the future, as we're dealing with climate change, we're planning for an 11- or even 10-million-acre-foot river."

That difference, as well as the explosive growth of population and water-intensive industries like agriculture, mining and hydropower, has meant the historic compact was just a starting point. Practically constant negotiations have been ongoing ever since among governments, Indigenous tribes, businesses, environmental groups and individuals vying for water rights.

Enter the Law of the River, the shorthand term for the web of laws, court decisions, agreements and treaties layered on top of the original 1922 compact. Under the Law of the River, groups have contracts with the federal government that entitle them to certain amounts of water. There's also a priority system in place, with the highest priority assigned to farming areas like Yuma, Arizona, and Imperial, California, which together produce more than 90% of North America's winter vegetables.

"Trying to understand how that body of law fits together to see where we are today, and how the river is managed, is a huge part of what I do every day," Johnson says, though she is not acting in a legal capacity in her current role. "Anything having to do with Colorado River entitlement, the quantity that comes to the state of Arizona and how we divide it, goes through me and my staff." Some days that might mean talking with a farmer who wants to sell or divide his water rights; other times it's looking over hydrologic models or considering requirements for endangered species preservation.

Across the state border in California, Stites handles the complex legal needs that come with distributing water to some 19 million urban residents. The Metropolitan Water District of Southern California includes major cities like Los Angeles and San Diego, and it's constantly building or improving mass infrastructure to treat and move water. Stites handles environmental impact reports and compliance for the California Environmental Quality Act for these projects. In addition to her focus on Colorado River issues, she works on tribal claims for water rights.

"Without the Colorado River water supply, Southern California would not have been able to develop into what it is now," Stites says. "If California were a country, we'd be the fourth-largest economy in the world."

Today, around 20% of the district's water still comes from the river. Other sources in Southern California include groundwater and water that's been desalinated or recycled.

"One thing I'd say about water fundamentally: It's heavy. It's very expensive to move, treat and deliver water because it's just so incredibly heavy. So just like with your retirement, we need to have a portfolio approach to water supply."

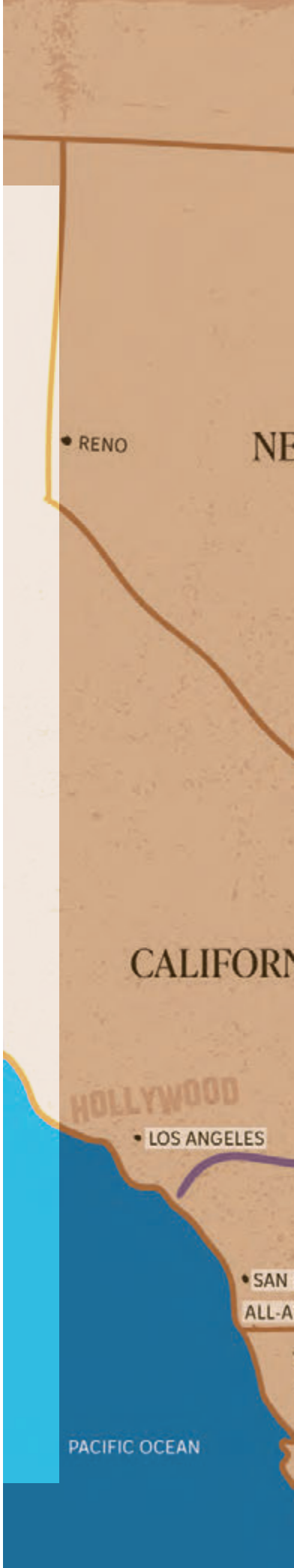
NEGOTIATION AND COOPERATION

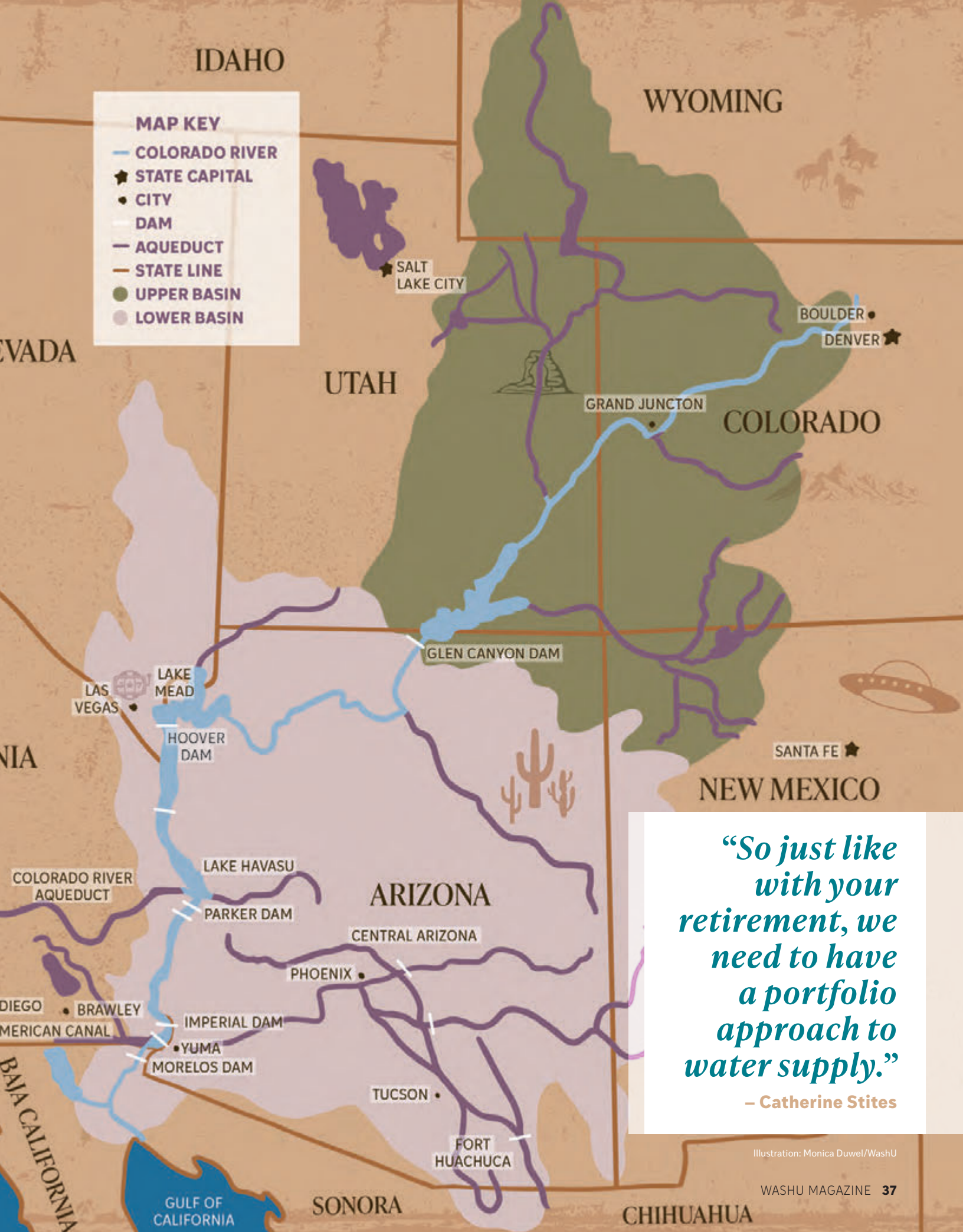
From her vantage point as a longtime leader on the federal stage, Rachel Jacobson, AB '80, understands the stakes when it comes to effective water management. "Water is becoming scarcer, and the need for water is becoming greater. That intersection creates potential security issues across the world," Jacobson says.

Though quick to point out that she's not a water lawyer by trade, Jacobson has held multiple governmental positions involving water management and policy. At the Department of Justice, she enforced the Clean Water Act. At the Department of the Interior, she worked on environmental conservation in the Everglades and led settlement negotiations with BP following the Deepwater Horizon oil spill. At the Department of Defense, she provided legal counsel on environmental requirements and programs. Most recently, she served as assistant secretary of the U.S. Army for installations, energy and environment.

"In the Army, we were very, very cognizant of the need for water conservation," she says. As assistant secretary, Jacobson managed physical infrastructure and natural resources for hundreds of military installations.

She points to Fort Huachuca in Arizona as a success story. Today, the base houses the U.S. Army Intelligence Center of Excellence and is an important testing area for unmanned aircraft. The drought-prone area is also home to farmland and ranches. In the face of competing interests, supplying adequate water for military operations requires effective partnerships, Jacobson says.





"So just like with your retirement, we need to have a portfolio approach to water supply."

– Catherine Stites

Illustration: Monica Duwel/WashU

"Congress gives military departments funding to promote conservation practices off base when those in turn support military readiness," she explains. That authorization allows Fort Huachuca to work with local landowners and agencies to protect groundwater. The base also has developed an extensive wastewater recycling facility. These efforts earned the base a Sentinel Landscape designation, meaning it serves as a conservation model for other military sites. Jacobson believes the outcomes there also hold lessons for the rest of the region and country.

"There must be a system of cooperation," she says. "I think as a lawyer, the tendency is to advocate for 100%. But that isn't conducive to success when it comes to managing water effectively. If the stakeholders aren't working together, there will be litigation and fights. And you don't really want a court deciding how much water should be released and where along the Colorado River, right? I don't think policy leaders can ever take their eye off the ball here. Nobody's going to get everything they want. There's only so much water."

BEYOND THE RIVER

Those living outside the Colorado River Basin are not immune to the water shortages and challenges facing the region. Thor Larsen, BSBA '98, has made his home in the foothills of the Sierra Nevada Mountains in northern California, where he serves as water resources superintendent for the Nevada Irrigation District. The district covers nearly 300,000 square acres, and everyone from farmers to recreational boaters depends on snow melt and surface water to meet their needs.

"Balancing all the needs of water supply, those challenges were intriguing," Larsen says of his decision to go into water management as a career. After a short stint in commodities trading after graduating from WashU, he moved back to his native California. Now, as superintendent of a large irrigation district, his team tracks water supply and movement through snow sampling, satellite imagery and more.

"We get a lot of variability between different water years," Larsen says. "We can have two to three years of drought and then flooding the next year. The concern is reliability for our constituents."

Looking at long-term climate change trends, he sees a need to build or expand reservoirs to store more water during those wetter seasons. "As warmer temperatures continue to carry on year after year, we're seeing the snowpack diminish and rise higher in elevation. We'll need to make up for it somewhere else," Larsen says. "I don't know if any new reservoirs will be completed in my lifetime, but increasing storage is a direction that needs to be sought and followed."

While planning for projects beyond his lifetime, Larsen also faces more immediate challenges. This year, infrastructure managed by utility company Pacific Gas and Electric went offline for months, leading to water cuts. An invasive mussel species also recently appeared elsewhere in California's waterways, requiring inspection and quarantine periods to prevent further spread.

The dizzying variety of tasks and partners makes the job compelling for Larsen, and both Stites and Johnson express the same sentiment. "It is such an intellectual challenge to try to manage the myriad stakeholders and get the messaging right," Johnson says.

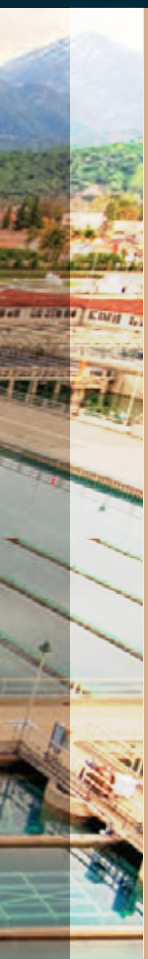
Stites has been doing water law ever since the summer after her first year at WashU Law, where she took environmental law courses and was part of the environmental law society. "It was very cutting edge at the time to have environmental law," she says. She worked for several private law firms before joining Metropolitan in-house 20 years ago.

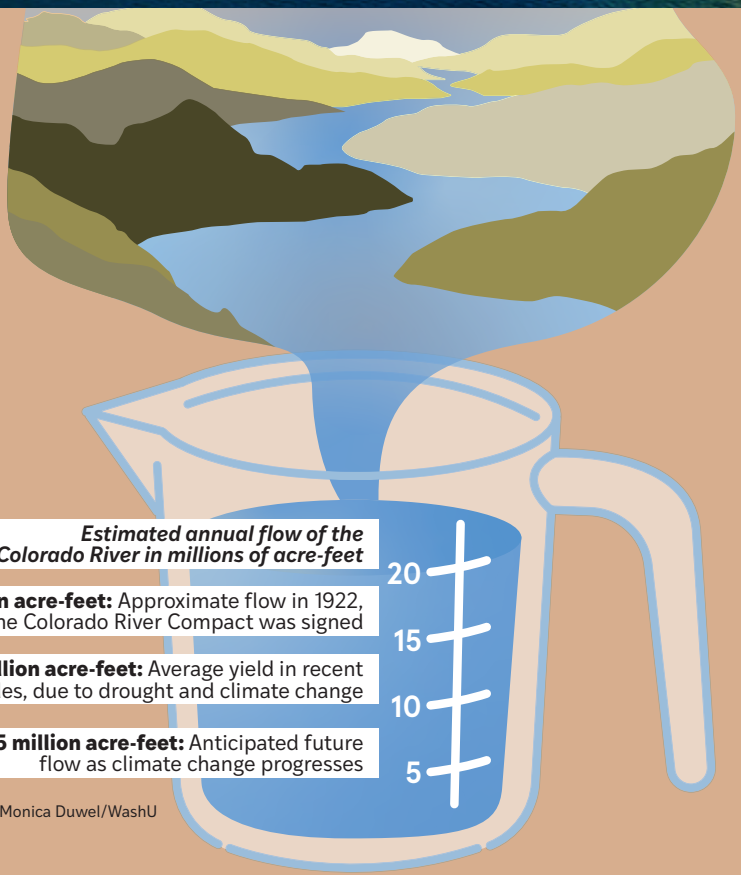
"When I joined, I thought what they did was fascinating," Stites says. "We're the largest wholesale water provider in the country, and the

Lake Mead, the Colorado River's largest reservoir, hit its lowest-recorded level in 2021.

Photo: Shutterstock

Photo: Metropolitan Water District of Southern California





Estimated annual flow of the Colorado River in millions of acre-feet

16.5 million acre-feet: Approximate flow in 1922, when the Colorado River Compact was signed

12.5 million acre-feet: Average yield in recent decades, due to drought and climate change

10.5 million acre-feet: Anticipated future flow as climate change progresses

Illustration: Monica Duwel/WashU

"... increasing storage is a direction that needs to be sought and followed."

– Thor Larsen

Opposite page: The F.E. Weymouth Water Treatment Plant in La Verne, California, treats up to 520 million gallons of water per day, serving eastern Los Angeles and other areas. It is also home to a high-tech water quality laboratory.

"We shouldn't be under-valuing water anymore. It's essential to everything we do."

– Kristen Johnson

The W.P. Whitsett Intake Pumping Plant is the starting point of the Colorado River Aqueduct, which delivers Colorado River water to Southern California. The intake plant pumps water out of Lake Havasu near the border of California and Arizona.

Photo: Metropolitan Water District of Southern California

bulk of the people we work with are engineers. Intellectually, I love working with incredibly smart, talented people."

Johnson, who majored in anthropology at WashU before earning a law degree at Southern Illinois University, was drawn to work in the western U.S. after a WashU fieldwork experience digging for fossils in Utah. A "suburban Chicago kid" at the time, she was entranced by the desert landscape. "If it weren't for that field season and that experience, I would be living a very different life," she says. A later summer legal internship at the Department of the Interior solidified her interest in water resource management.

"Ultimately, my specialization chose me," Johnson says. "And I'm so thankful."

LIVING WITH LESS

In the ongoing negotiations among the states, countless questions and scenarios are on the table: What minimum amount of water is required for human health and safety, including fire prevention? If severe drought requires diverting water from one place to another to ensure that minimum is met, who takes the cut? Under what scenarios do those with senior water rights, Yuma County included, have to cut back? And who gets paid what for all that water?

In each of these scenarios, people in the Southwest will live with less water than before. In fact, they already are.

"The current rules already have people getting cut," Johnson says. "We've been in a shortage condition since 2022." The region made headlines in early 2023 when Lake Powell dropped to its lowest-ever recorded height above sea level.

Luckily, water conservation efforts are well underway. "Per capita in the urban areas and Metropolitan's service area, we're using half the water we used to use," Stites says. "Even though the population has increased dramatically since the 1990s, we're not using more water."

This decrease has come from low-flow toilets and appliances, the proliferation of grassless "California friendly" gardens, changes in building codes and more. Stites gives kudos to neighboring Nevada, which she says does an even better job than Southern California with water recycling and conservation – something many people overlook when strolling through flashy Las Vegas.

Across the board, there's also increased investment in water treatment technologies to make sure every available drop is safe to consume. Metropolitan is devoting around $7 billion to construct a massive recycled-water plant in Los Angeles, part of a multistep process to make LA's wastewater potable. This necessary dedication to water quality, as well as quantity, puts the region in conversation with efforts at WashU and around the country.

Daniel Giammar, the Walter E. Browne Professor of Environmental Engineering at the McKelvey School of Engineering and director of the Center for the Environment, has worked with Metropolitan to study the impacts of blending conventional water supplies with advanced treated water, examining the release of metals from household plumbing.

"We received regular shipments of this advanced treated water at our laboratory at WashU where we performed controlled laboratory experiments," Giammar says. That research was supported by the Water Research Foundation. Last year, he was also chosen by the National Water Research Institute to serve on an independent science advisory panel that will review Metropolitan's approach to direct potable reuse.

Through a project called Trusted Tap, supported by the National Science Foundation, Giammar's research has the potential to help those living far outside the Colorado River Basin. With an interdisciplinary team of scientists and engineers, Trusted Tap is being developed to offer a simple approach to monitoring tap water for contaminants like lead and PFAS "forever" chemicals. In the approach, users send their existing water filters (like those made by Brita or Pur) to Trusted Tap for analysis. Importantly, Trusted Tap has the potential to help any water user, including the millions of Americans who rely on private wells.

Giammar also is one of more than a dozen McKelvey and Arts & Sciences faculty members affiliated with WashU's Center for Water Innovation. The center facilitates partnerships and research that support sustainable water and wastewater management. Its director, Zhen (Jason) He, the Laura and William Jens Professor of Energy, Environmental & Chemical Engineering, is an expert in the recovery of valuable resources from wastewater. The center's regional partners include the City of St. Louis Water Division and the American Bottoms regional wastewater treatment facility.

Those working in water management see such partnerships as key to solving the ongoing issues in the West and elsewhere. Experts in policy, engineering, energy, law, the environment, communications and more are needed, as are professionals who devote their entire careers to the cause.

"I think it's a privilege to work in this sector," Johnson says. "We shouldn't be undervaluing water anymore. It's essential to everything we do."

Next

Photo: Jersson Barboza

THE WORLD OF OUR WASHU ALUMNI

A place to MELT

WashU connections abounded at a restorative retreat in Playa El Coco, Nicaragua, earlier this year. Master trainer **Edya Kalev, AB '92** (standing, left), introduced participants to the MELT method — a gentle, pain-relieving massage technique — in a soaring bamboo structure designed by **Wyly Brown** (not pictured), assistant professor at the Sam Fox School of Design & Visual Arts. The retreat also included daily orthopedic yoga therapy sessions led by **Michelle Fleming** (center), owner of Evolution Trainings. **Orion Strayer, BArch '24** (right), was present as a bamboo design intern.

Forensic pioneer

Rhonda Roby has become one of the country's foremost experts in mitochondrial DNA, solving some of the biggest forensic questions of our time.

Forensic expert **Rhonda Roby, AB '85,** has helped identify human remains from the Pinochet coup in Chile and the Branch Davidians standoff in Waco, Texas. She spent four years in a lab helping to identify biological evidence from the victims of the 9/11 attacks. She has processed remains of U.S. soldiers who died in Operation Desert Storm and those remembered on the Vietnam Memorial. She was on the team that verified conclusively the remains of Tsar Nicholas II, the Tsarina and some of the Romanov family members. Her latest project: helping to identify the DNA of Leonardo da Vinci.

And she's done much of the work using technology that had yet to be invented when she first stepped foot on the Danforth Campus in 1981.

But before she deciphered anything, she was a senior on the Homecoming committee who, in 1984, convinced **Harold Ramis, AB '66,** to return to WashU to serve as grand marshal of the parade.

"My parents always taught me there were no limits," Roby recalls. "So during winter break I was home, lamenting my need for a parade marshal. My dad said, 'Let's find Harold Ramis.' I don't know how we found phone numbers back then — 4-1-1 or something, right? But we did. I called it, and Ramis answered his phone. I told him WashU wanted him back for homecoming and that we would pay for it.

"He laughed and said, 'I don't need you to pay for anything, but I would be happy to come back!' He was so nice about everything," she says.

Roby's pluck in securing a star of one of 1984's hottest movies, *Ghostbusters*, may just hold the key to all that came after for one of the country's foremost experts in mitochondrial DNA: unabashed fearlessness, an undaunted spirit and plain old hard work.

A native of Oklahoma, Roby is warm and personable and quick to deflect responsibility for any of her career accomplishments. "I'm not a great scientist," she says. "But I'm a good forensic scientist who has worked hard and studied hard to get where I am. I've had some wonderful mentors. I've been lucky, and I've capitalized on that."

Part of that good fortune was her choice to pursue graduate work with George F. Sensabaugh Jr., who, at the time, was doing pioneering work on mitochondrial DNA, the genetic material inherited from one's mother that is inside every cell in a body.

In the 1980s, Sensabaugh's lab at the University of California, Berkeley was one of the first to use PCR (polymerase chain reaction) technology for forensic sciences, which could produce multiple copies of a specific DNA strand. The technique would prove revolutionary, and Roby was there at the beginning, first learning how to extract mitochondrial DNA from hair shafts.

Today, there are more than 400 public forensic labs in the country. But as the technology was evolving in the late 1980s, only private companies were doing DNA testing. At the onset of Operation Desert Storm in 1990, Roby was working at one of the only labs set up for PCR technology.

From there evolved some of Roby's most high-profile cases involving DNA testing, including that day in September 2001 — two days after the attack on the World Trade Center — when she was one of a few forensic scientists flown to the site. It's a day she's never forgotten.

Ultimately, Roby would head up a team of 59 that worked 24 hours a day for four years to identify every DNA strand that could be extracted from the biological evidence collected and logged at the site.

Roby's work is painstaking and tedious, but she loves it. Currently, she serves as supervising DNA criminalist/technical leader for the Alameda County Sheriff's Office in California. Despite the workload, despite the sobering fact that there will always be a need for crime labs to identify the tiniest pieces of evidence from the most heinous of crimes, Roby, 61, has no plans to slow down.

"We implement rigorous quality control measures to ensure that every detail and every procedure meets our high standards," she says, "because what we're doing is potentially putting someone in prison." And then, she says, there are the victims and their family members. "I'll tell my team, 'This is someone's worst day of their life.' This is why I pour so many hours into it — more hours than I should."

And she emphasizes that she doesn't do anything alone. "On any case I've been part of, anything I've ever done, I've always been part of a team," she says. "Sometimes you take a lead role; sometimes you take a back seat. It's never just one person working a case. It takes a large team to make this happen."

■ LESLIE GIBSON MCCARTHY

WHO

Rhonda Roby, AB '85, double major in biology and French

OTHER ACADEMIC DEGREES

MPH, public health, University of California, Berkeley; PhD, genetics and evolution, Universidad de Granada

WASHU INFLUENCES

Roby's adviser was noted biologist Florence Moog. They battled a lot, Roby says, because Roby insisted on double-majoring in biology and French, and Moog thought French would distract Roby from her science training.

"I wish she had known me after I started working in the field," Roby says of Moog. "I would have loved to have had an opportunity to go back and tell her, 'See, I did it!'"

Roby also cites a then-young professor named Gerald Early, whose psychology class had a profound impact on the way she views the world.

SHE'S A CHARACTER IN A MYSTERY NOVEL

Julia Heaberlin's *Black-Eyed Susans* (Ballantine Books, 2016) is a suspense novel set in Texas about a fictional, high-profile serial killer. It features a forensic scientist named Dr. Joanna Seger, whom Heaberlin based on Roby. When Seger is first introduced, the character is described as "brilliant without ego, empathetic without cynicism." Sums up Roby perfectly.

Photo: Christie Hemm Klok

Lighting a fire

Mark Sawyier and his tech company, Bonfyre, call St. Louis home.

Mark Sawyier, AB '07, didn't know entrepreneurship would be in his future when he came to WashU. It arrived quickly.

Sawyier was only a sophomore when he launched MovingOffCampus.com with a classmate in 2004. The site began by helping St. Louis–area college students find off-campus apartments, then expanded to multiple states. Sawyier subsequently co-launched Bonfyre, the St. Louis–based company he runs today as CEO.

Bonfyre began in 2012 as a private social networking app that people attending personal and corporate events could use to communicate and share content. Express Scripts, a pharmacy benefit manager, was among its first customers.

Today, Bonfyre has grown into a comprehensive employee engagement platform that organizations like Duke Energy and Medtronic use to recognize and reward employees and build highly engaged teams. The platform translates survey data into suggested action "nudges" — such as celebrations, nominations, team building, communications and polls — that leaders can easily implement and measure to improve workplace culture.

The New York City native wasn't studying business when he began his entrepreneurial journey. A microeconomics class was the only business-related course he took at WashU. "I certainly could have benefited from business school courses," Sawyier says, "but I got all of my entrepreneurial experience through doing it."

He double-majored in Spanish and what is now known as global studies, picking up valuable life and professional skills along the way. "The critical thinking, writing and diligence that you acquire in studying at a school like WashU really played an instrumental role in my development as a person, and also as an entrepreneur, because I learned a lot about how to communicate effectively," he says.

Working on his thesis on the British New Left was particularly impactful. "I think there's a lot that you get in terms of perseverance, in terms of stringing together thoughts and doing research," he says. "All of that is very relevant to entrepreneurship."

WashU offered another crucial element: a nurturing environment for young executives. "I found the university and programmatic support for entrepreneurs to be really powerful," he says. "They made it very easy for students to start businesses."

One resource that Sawyier turned to as a student and later as an alumnus was the Skandalaris Center for Interdisciplinary Innovation and Entrepreneurship. "If I ever needed advice or maybe a connection to someone, they were always willing to help," he says.

Now, Sawyier is the one helping by attending events and periodically judging pitch competitions. He says, "I got involved in the Skandalaris Center to try to pay it forward a little with whatever experience and help I might be able to offer others."

■ MINDY CHARSKI, AB '96

WHO
Mark Sawyier, AB '07

STL FAN
"St. Louis was and is extremely supportive of folks trying to start something," he says.

AWARD-WINNING COMPANY
Bonfyre was named the "Employee Recognition Solution of the Year" in the 2024 RemoteTech Breakthrough Awards.

BOARD BUDDIES
He serves on the Saint Louis Science Center's board of commissioners, which is chaired by Mark S. Wrighton, chancellor emeritus and the James and Mary Wertsch Distinguished University Professor at WashU. Sawyier says, "It's been such a privilege to work with Mark Wrighton, who signed my diploma!"

Photo: Theo R. Welling/WashU

Courtesy photo

Creating joy at Pixar

Louise Smythe's magical career journey started at WashU.

WHO

Louise Smythe, BFA '10

CLASSROOM HIGHLIGHTS

An animation course taught by Jonathan Navy, a senior lecturer, was a catalyst in her pursuits.

WITH FEELING

While working on *Inside Out 2*, Smythe used herself as a model for certain expressions. "For Joy, I would think of what makes me super happy and draw that elated feeling — eyes really big and a smile so huge it makes her eyes crinkle — because that's what it feels like when I do it."

Pixar story artist **Louise Smythe, BFA '10,** describes her urge to create as innate; she's constantly conjuring up stories and ideas in her head. During her childhood in Memphis, she drew all the time and watched animated movies intently. But it was at WashU where she discovered how to channel her creative energy into a filmmaking career.

In the late '00s, when Smythe wasn't busy with her studies at the Sam Fox School of Design & Visual Arts, she frequented fantasy bookstore Star Clipper on Delmar Boulevard, inspired by the sequential storytelling found in the store's comics. This passion, fused with her love of drama and cinema, led to the realization that she was destined to become a storyboard artist.

But her first storyboarding attempts were less than a success. "I was really, really bad at it," says Smythe, "but I had **John Hendrix** and **D.B. Dowd** as professors at Sam Fox, and they were so encouraging." Dowd, a professor of design, and Hendrix, the Kenneth E. Hudson Professor of Art, devised assignments tailor-made for Smythe to acquire storyboarding expertise. She even drew inspiration from WashU's past, finding a stylistic antecedent in the illustrations of Al Parker (a contemporary of Norman Rockwell), who attended WashU's School of Fine Arts from 1923–28.

After graduation, Smythe applied three times for a Pixar internship, sending the kinds of art she felt certain would impress; each time, she was rejected. The fourth time, however, was the charm. She decided to draw what she wanted and tell the stories she wanted to tell. "If they're weird, that's fine," she thought. "I'm just going to see what happens."

That's when Smythe's phone rang. She landed the internship, which soon morphed into a full-time role at Pixar Studios, where storyboarding is a collaborative process designed to lock in a story before animation.

"They were looking for that individual outlook," Smythe says. "I try to think about that more and more, because making movies here, sometimes I think: 'Does this fit with the brand?' But it's usually better to think: 'Make the movie you want to make.'" Smythe is doing just that, adding a bit of her own magic to Pixar's movie-making process.

Since 2012, her talents have been applied to *Toy Story 4*, *Cars 3* and *The Good Dinosaur*. She especially enjoyed contributing to 2020's *Onward*, and to this day, an entire wall of her office is dedicated to the film's fantasy-themed art. Recently, she served as lead story artist for *Inside Out 2*, which, at $1.69 billion, is Pixar and Disney's highest-grossing animated film.

In her role, she helped develop the new character of Anxiety and reveled in depicting the ongoing arc of Joy, one of the original *Inside Out* characters. Her storyboards suggested plot elements and framing for the shots themselves. And, working with the director, writer and editor, she constantly pitched ideas and revised the story sequence.

Through it all, she hasn't forgotten the impact of her mentors, and she is doing the same for others — whether teaching animation classes or providing an illustration tutorial online. "Thinking of people who want that knowledge — because I know I wanted it when I was at WashU — is a big motivator for me."

■ RYAN RHEA, AB '96, MA '01

Photo: Virginia Harold

Leading without limits

Karen Ivy has excelled in aerospace and academia. Now, she uses her experiences to empower the next generation of leaders.

WHO

Karen Ivy, AB '84

ADDITIONAL DEGREES

Ivy also earned an MBA from St. Thomas University and a doctoral degree in organizational management from Capella University.

EARLY DAYS AT WASHU

"Before the systems and computers we have today, we had punch cards for the programs that were being developed. A lot of my time was spent in these labs at WashU. It ended up being a special time because we were forging a new path."

ALUMNI PRIDE

"WashU, continue doing what you're doing. And as alumni, we'll continue to make you proud."

When **Karen Ivy, AB '84,** reflects on her childhood, one memory soars above the rest: her father, **Richard Daniels,** then an employee of McDonnell Douglas in St. Louis, taking her and her two sisters to the air show. Her face illuminates with joy as she recalls her eyes opening to the world of aviation and being one of the few Black children in attendance. Suddenly, she realized the sky was the limit for who she could become.

Ivy watched her father navigate the aviation industry during a time when racial barriers were far more apparent. She watched her mother, **Peggy Daniels,** step up in their church community by taking a lead role in outreach communications. "My parents were my strongholds," Ivy says. "They were the ones who made sure I always saw beyond my community."

Although Ivy was shy, something sparked in her as she watched her mother serve others. As a teenager, she began assisting her church in helping the homeless, putting care packages together and visiting with young people at the Annie Malone Children & Family Services Center.

"By the time I made it to college, I had already started working in the community," Ivy says. "What WashU did was position me to reach out to those who were different from me."

With a desire to continue helping others, Ivy set her sights on medical school. But a hospital job her junior year opened her eyes to the reality of a health career. "I worked with patients who were dealing with a terminal diagnosis," she says. "It was painful for me to lose them." The emotional toll led Ivy to switch her major to applied mathematics, a callback to her father's career in technology and aviation.

"WashU provided a supportive environment for me," she says. "So many of my professors exposed me to the idea that when you're done with your studies, you can touch so many people throughout the world."

The late **Florida Bosley,** then assistant director of student educational services, is one memorable mentor who played a pivotal role in shaping Ivy's perspective on career possibilities and her desire to make a difference in the world.

Following graduation, Ivy moved to Minnesota to work in Honeywell's aviation division, followed by stints at 3M in information systems and then Lockheed Martin. It was there that she honed leadership skills in senior management roles. Ultimately, Ivy landed at the University of Arizona Global Campus. Based in Colorado, she serves as assistant dean and professor of technology studies.

Ivy was named a U.S. Fulbright Specialist in 2023 and, in September 2024, was honored by President Joe Biden at the White House with the Presidential Lifetime Achievement Award. Ivy credits the honor to her work with Shades of Blue, a nonprofit that encourages young people to pursue careers in aerospace industries.

"Everything is full circle, going back to when I was a little girl and my dad crossed the line to take his daughters to air shows, letting us know you can be whatever it is that you want to be," Ivy says. "When you listen to the role models whom God has blessed you with, you must honor them and go beyond that."

■ BRITTNEY WHEELER

Designing a better tomorrow

WHO

Brendan Wittstruck, MArch '11, MAUD '11, MCM '11

NURTURING MOTHER NATURE

Committed to environmental stewardship and sustainability, Wittstruck incorporates the natural world in his designs to improve urban lives.

ADVICE FOR FUTURE ARCHITECTS

"Architecture is a life of service. Be a citizen architect, and advocate for your community."

The word "architect" evokes images of a person designing aesthetically pleasing houses, buildings and outdoor spaces. But architects do so much more than make things visually appealing: They build better communities by increasing accessibility, addressing inequities, protecting the environment and improving lives.

"Architecture," explains **Brendan Wittstruck, MArch '11, MAUD '11, MCM '11,** "is a life of service." A landscape architect and urban designer at Dunaway in Austin, Texas, Wittstruck focuses on incorporating nature into urban spaces.

▸ **I wanted to use my undergraduate degree in art to address pressing climate issues.** A career in architecture seemed like the best next step to merging my interests in art and sustainability. WashU won me over with its emphasis on community design. But when a good friend at WashU encouraged me to take an urban design intro class, I realized that was the scale of impact I was looking for. Somehow, I ended up being a landscape architect, but I still hang on to a lot of the design training I got in architecture.

▸ **Landscape architecture and urban design can positively impact the broader ecology and connect people** with green spaces within cities, making these areas more livable. There are so many benefits to integrating landscaping into people's lives. Trees and other plants improve air quality and local climate. Data shows that green spaces shorten hospital visits and improve moods. And park access is a huge indicator for quality of life in cities.

▸ **To make urban areas more livable, we must address inequities.** When it comes to public spaces, it's so important to keep in mind who we're designing for and make sure we're not leaving people out. Will this space be comfortable and safe for women? Have we considered the needs of parents? Is there accessibility for strollers? What happens when the "eyes on the street" are prejudiced? Urban design as a practice is rethinking older ideas of environmental design that intentionally and unintentionally excluded many people from participating in the public realm.

▸ **Highway removal is another way to improve urban lives.** Since I did my thesis on highway removal at WashU, the "freeway fighters" movement has gained momentum. Nationally, there is a striking pattern of highway projects razing and disconnecting communities of color. Highways in cities just don't make any sense: They take up too much space, cut up neighborhoods, pollute, and can actually make traffic worse. Their purported benefits are completely eclipsed by their negative impacts on the urban environment and surrounding communities.

▸ **One of my early projects recently came full circle.** Shortly after graduating from WashU, I was part of a design team for the Colony Park Sustainable Community Initiative in Austin, which set 208 acres of city-owned land on a path toward being a mixed-use community. It's an important effort focusing on bringing basic services and housing to a historically underserved community of color that doesn't even have a grocery store. I helped develop the sustainability guidelines on this master plan and am now leading the site design of a nature play area for a health clinic there. It's exciting to be involved with the design of a plan I helped develop over a decade ago!

■ BLAIRE GARWITZ

Photo: Buff Strickland 2025

Photo: Joe Angeles/WashU

Exceptional advocate

An eye-opening undergraduate education paved the way for Kirk Ogrosky's distinguished legal career and inspires his active involvement today.

When attorney **Kirk Ogrosky, AB '92,** became deputy chief of the criminal fraud section at the Department of Justice in 2006, the government's method for investigating fraud against federal health-care programs needed an update — and he aimed to provide it.

Traditionally, Medicare and Medicaid used a "pay and chase" model, whereby payments were investigated long after they had been disbursed. This gave fraudsters ample time to pack up shop, move to a new location and continue billing the government for phony prescriptions or unnecessary medical equipment under a new name.

Ogrosky's Medicare Fraud Strike Force turned the tables. The team was the first law-enforcement group to use sophisticated data analysis to catch fraudulent billing patterns almost as soon as they occurred. This new approach created a 40% increase in annual indictments. Since its inception, the strike force has prosecuted more than 5,800 defendants who collectively billed health-care programs over $30 billion.

In 2010, Ogrosky, who earned his law degree at George Washington University, shifted to private practice. Now a partner with Goodwin Procter LLP's government enforcement defense group in Washington, D.C., he works with a team of former federal prosecutors to represent pharmaceutical and medical device manufacturers, teaching hospitals, physicians, executives and researchers. He also teaches a class about health-care fraud as an adjunct professor of law at Georgetown University.

Ogrosky's 30-year legal career — including 10 years as a federal prosecutor — has its roots at WashU, where he majored in economics and psychology. Grateful for his education, he gives back by serving on the Arts & Sciences National Council and the Washington-Baltimore Regional Cabinet. He also joined the Parents Council after his daughter, **Margo, Class of 2026,** chose to attend WashU. He and his wife, **Holly Barker,** are scholarship donors.

WHAT DOES WASHU MEAN TO YOU?

My WashU education has led to a lifetime of curiosity and learning. As an only child from a rural Kentucky town and a high school graduating class of 75, my experience at the university was eye-opening. It was a time for me to learn about music, art, authors, philosophy and much more. I also made lifelong friends at WashU. While I learned a great deal from my professors, I learned just as much from my friends and classmates.

HOW DID YOUR TIME AT WASHU INFLUENCE YOUR CAREER?

During high school, I thought that I would go to law school, but I didn't know any lawyers or what practicing law meant.

My first year at WashU, I loved both microeconomics and macroeconomics, but I felt more drawn to the material in the microeconomics courses. My sophomore year, I took "Theory of Property Rights," co-taught by economics professors **John Drobak,** who is also the George Alexander Madill Professor of Real Property & Equity Jurisprudence at WashU Law, and the late **Douglass North.** The class helped me conceptualize economics in a different way and led me to my second major, psychology.

It seemed to me at the time that the assumptions economists made in modeling often lacked the insight psychologists brought to the table. Professor Drobak furthered my interest in studying law and served as a reference for my law school applications.

WashU provides one of the best undergraduate educations in the world. My evenings and weekends in Olin Library focused my work ethic, organizational skills and writing. Writing was perhaps my weakest skill when I arrived at WashU, and the Arts & Sciences curriculum helped me sharpen my ability. Persuasive and focused writing is one of the most important skills for a trial attorney. You also need to understand how people think and react when confronted with different kinds of evidence, and gaining deep knowledge of this is part of the value of an Arts & Sciences education.

WHAT MOTIVATES YOU TO GIVE BACK?

I could not have attended WashU without financial aid. My parents and grandparents were public school teachers, and I was a Pell Grant recipient and work-study student.

For three years as an undergraduate, I supervised student phonathon callers who raised money for the university. The alumni we talked to helped make it possible for students like me to attend WashU. While my first gift to the university during my junior year in 1991 wasn't much, it was a way for me to pay it forward. I feel it's incumbent on the WashU community to support scholarships. My scholarship allowed me to obtain a world-class education, an exciting career and now a shared experience with my daughter.

■ MATT HAMPTON

Illustration: Monica Duwel/WashU

Home base

Meet three WashU alumni who came for four years and stayed for a lifetime.

Some alumni call WashU home for just a few years before moving on to new adventures. Others build their professional and personal lives here. "When people ask me why I stay, it's really because of the people," says **Jennifer Yu, BS '08, BS '08, MPHS '15, MD '12,** an assistant professor of surgery at WashU Medicine. Since arriving on campus in fall 2004, Yu has forged deep bonds within the WashU community. Now, she and two fellow graduates reflect on the importance of those ties and why they continue to stick around their alma mater.

AN INCREDIBLE JOURNEY

As an undergrad, **Tim Bono, AB '05, MA '08, PhD '11,** was busy. He wrote for *Student Life* and conducted campus tours. He was a Village resident adviser and served as a student representative to the Board of Trustees. But his favorite gig was working as a WashU Reunion intern.

Bono especially enjoyed chatting with the "Golden Bears," alumni who returned to campus more than five decades after graduating. The celebrants eagerly peppered him with questions about contemporary student life and what he loved best about the university. He was honest: WashU was the most intellectually challenging environment he had ever experienced. But it was also full of kind and generous people who championed his success.

Bono still remembers the Class of 1939 alumna who leaned in and, without missing a beat, said, "Well, Tim, it's nice to know some things don't change even after 65 years." Fresh off co-chairing his 20th reunion, Bono feels the weight of her words even more today. Since that moment, he has grown from a wide-eyed undergrad to bleary-eyed grad student to seasoned university administrator, faculty member and expert on the psychology of happiness.

For Bono, this arc would have been impossible without mentors. He credits several who had a profound impact on him — **Henry Biggs, MBA '04, LLM '12,** his undergraduate adviser; **Jill Carnaghi,** former dean of Campus Life; the late **Randy Larsen,** chair of the psychology department and his graduate adviser; and the late **Dean James E. McLeod,** who recruited him to the Office of Student Affairs in 2011. Each person, he says, recognized his potential and helped him identify the best ways to channel it.

"Sometimes, when I'm walking around the Quad, it'll hit me," Bono says. "I can't believe I get to work here! And it's because of people like Henry, Jill, Randy, Dean McLeod and many others. Their passion and dedication still inspire me to be the best version of myself."

A GOOD FEELING

A chorus of pitchy medical students cemented Jennifer Yu's decision to log another four years in St. Louis at WashU Medicine. When a conflict forced Yu to miss a preview weekend, admissions staff arranged for her to meet separately with current students. That evening, they took her to the annual Medical School Musical, which is partly funded by alumni giving to the WashU Medicine Annual Fund.

"I'll never forget sitting there and thinking, 'This is why I want to be part of WashU Medicine,'" Yu says. "The students were clearly passionate about medicine but had interests outside of it. They were having such a blast on stage. I was struck by their camaraderie." Eventually, Yu transitioned from audience member to thespian and participated in three productions during her WashU Medicine training.

While weighing surgical residency options four years later, she faced a similar dilemma: remain at WashU or venture elsewhere. As an undergrad, Yu had found fellowship and support with teammates in swimming and track and field. As a graduate student, she experienced the same sentiments with WashU Medicine faculty and classmates. Her residency decision ultimately came down to culture.

"I've always felt a strong sense of home here, especially in the Department of Surgery," says Yu, who in addition to her faculty appointment sits on the Alumni Board of Governors. "I appreciate the learning

Courtesy photos

environment and how the faculty interact with residents. I stayed for my residency and fellowships because I had a feeling."

Now director of the general surgery residency program, Yu helps the next generation of students, trainees and fellows hone their skills. In 2022, she earned the medical school's Clinical Educator of the Year and Gregario A. Sicard Teaching Fellow awards. "I believe I'm in the right place, at the right time, doing the right work," she says. "And that feels good."

MORE THAN A JOB

Bill Bauer, BSBA '90, BS '94, MSBA '12, had only a couple days to relish being a newly minted WashU graduate before joining the university's internal audit department as a full-time employee. "I graduated on a Friday and started working the following Monday because I needed to pay my rent for the month," he says.

That post would be the first in a series of achievements defining Bauer's nearly four-decade relationship with WashU. With encouragement from his boss, he pursued a second bachelor's degree in information management while keeping up with his departmental responsibilities. Several years later, he shifted to the medical school's financial planning office to become an analyst. He ultimately landed in the Program in Occupational Therapy, where he has been the director of business operations since 2005.

"What I value most about the university is its willingness to invest in people and develop their talents," says Bauer, whose then-supervisor, **Carolyn M. Baum, PhD,** encouraged him to enroll in Olin Business School's graduate program in 2011. "WashU is more than a job to me," he says. "It's my career and my home."

WashU is also where Bauer built a family. He met his wife, **Tracy, AB '92, MSOT '93,** through a fraternity brother a few years after earning his first bachelor's degree. They share two children, including second-generation alumna **Anna Bauer, AB '18.** Bill Bauer, who recently attended his 35th reunion, is sanguine about the milestone. "Yeah, I never really leave," he jokes.

■ EMMA DENT, AB '09

1. Tim Bono in the Danforth University Center in 2021. 2. Jennifer Yu during her WashU Medicine residency in 2017. 3. Bill Bauer and his daughter, Anna, celebrate Commencement in 2018. 4. Bono with two graduating seniors who served as teaching assistants for his "Science of Happiness" course in 2016. 5. Yu and the most recent class of general surgery interns during orientation in June 2024.

Class Notes

PRESERVED MEMORIES
The *Hatchet* staff ended the 1975 yearbook with the following: "And then suddenly, it's over, and the months of summer loom ahead like a haven. When finals are over, we will disperse and go our separate ways, and if we think of the last year, it is only in quick remembrances of fleeting moments. Some of us will be returning for another nine months; others may return for a week's visit with friends we've left behind; some of us will never return." (*continued on pg. 57*)

Photo: Washington University Archives

What's *New*?

Let us know about recent honors, promotions, appointments, travels, marriages and births, so we can keep your classmates informed of important changes in your lives.

SEND NEWS:
Class Notes, *WashU Magazine*
Washington University in St. Louis
MSC 1070-0390–03
1 Brookings Dr.
St. Louis, MO 63130-4899

EMAIL:
wustlmagclassnotes@wustl.edu

Entries may take up to three issues after submission to appear in the magazine; they are published in the order received.

1959

Robert Tanenbaum, BFA '59, is the subject of the hardcover book *The Movie Poster Art of Robert Tanenbaum* (A to Z Media, November 2023), written by Dennis L. Prince. Tannenbaum has worked on more than 200 movie posters, helping promote classics like *A Christmas Story*, *Superfly*, *Battlestar Galactica*, *Cujo* and *The Color of Money*, to name a handful. The book also features rare alternate compositions and the original poster for *Jaws*.

1962

Ron Fischer, BS '62, retired in January 2024 as owner of Professional Engineering Co. Patron Services, Inc. and is living in Summerville of St. Andrew's retirement community in Eureka, Missouri.

1963

Robert Zaller, MA '63, PhD '68, a distinguished university professor emeritus at Drexel University, has published an article, "Misotheism in Robinson Jeffers' Construction of Divinity," in *South Central Review*, a journal of Johns Hopkins University Press. He has penned two books of poetry, *After the Fire* and *The Dresden Zoo*, both with Moonstone Press.

1966

Joel A. D'Alba, AB '66, received the 2023 Arvid Anderson Public Sector Labor and Employment Attorney of the Year Award from the American Bar Association Section of Labor and Employment Law. The award recognizes an attorney whose career substantially contributed to the development of public sector labor law as exemplified by Arvid Anderson. The selection committee includes the co-chairs of the state and local government bargaining and employment law committee.

1968

Lawrence Millman, AB '68, penned *Drinks With God* (Austin Macauley Publishers, May 2025). The book is a satire about having fictional drinks with the supreme being, during which he confesses he's an almighty bumbler — if a mistake can be made, he will make it.

1969

Jack Nasar, AB '69, penned his seventh book (under the pen name Leona Victor): *The Right Angle: A Retort to Ayn Rand's The Fountainhead* (Vikinc, July 2024). Nasar is an academy professor in the Knowlton School at The Ohio State University. His previous books include *Design by Competition: Making Design Competition Work*; *The Evaluative Image of the City*; *Designing for Designers*; and *Environmental Aesthetics: Theory, Research and Applications*.

1970

John Sheridan, AB '70, a Vietnam War veteran, returned to Vietnam in October 2024 with a group organized by Veterans for Peace and was featured in a long article in *Der Spiegel* magazine published April 12. The trip focused on reconciliation and research about the ongoing Agent Orange and unexploded ordnance remediation programs.

1971

Gary Nichols, BFA '71, is past president and current board member of the Summit County Arts Council, a nonprofit organization with the mission of promoting the arts of all types in Summit County, Colorado. He is also a member of Arts Alive, a co-op art gallery in Frisco (where he lives part time; his primary home is in Denver). When not painting (watercolors), he spends his time hanging with his grandchildren, skiing, golfing and fly fishing.

J. Stuart Showalter, JD '71, published the 10th edition of his textbook, *The Law of Healthcare Administration* (ACHE, Health Administration Press) and, with co-author Sallie Thieme Sanford, is working on the 11th edition. Showalter taught health law at WashU in the health administration program in the 1980s and '90s. He is retired and lives near family in Williston, Vermont.

1972

Mark Edelman, AB '72, publishes a monthly theater column in several Washington, D.C.–area newspapers and hosts a podcast on the subject titled "Onstage DMV." His play *Four Children* was published by Theatrical Rights Worldwide. The organization he founded in Kansas City — Theater League — provides funding for Shakespeare festivals and children's theater programs around the country. This year, the league honored him with the creation of the Mark Edelman Theater Fund, a $20 million endowment for the performing arts.

1973

Larry Altman, BS '73, co-authored an article, titled "What to Do After a Crisis," that was published in the winter 2025 edition of *Rethinking Behavior* magazine.

1975

Richard Holinger, MA '75, wrote a book of poetry, *Down from the Sycamores* (Finishing Line Press, June 2025). The book takes readers on a tour of Paris. Holinger begins with a bizarre account of a streetwise "fire-eater," then captures the everyday lives of transients in the Paris metro. He moves to the more aesthetic realms of the Louvre, an ekphrastic celebration, and finally on to the "polar express," in which readers become virtual Arctic explorers.

Donald Tye, MSW '75, JD '75, of Prince Lobel Tye LLP, in Boston, was selected as a 2024 *Massachusetts Lawyers Weekly* Hall of Fame class member. Membership is reserved for attorneys who have practiced law for at least 30 years and is based on the lawyer's career achievements, their contributions to the bar and the growth of Massachusetts law, as well as their endeavors to improve the standard of justice in Massachusetts. Tye specializes in family law.

1977

Lawrence E. Thomas, BSBA '77, was honored with a lifetime achievement award by the St. Louis American Foundation during its 23rd Annual Salute to Excellence in Business Awards this year. Thomas, a member of the WashU Board of Trustees, was recognized as a "Lifetime Achiever in Business." In addition to being a trustee, he has served as co-chair of the Make Way initiative, a leader of the Black Alumni Council, past president of the Olin Alumni Association Executive Committee, and past chair of the Alumni Board of Governors.

1978

Kerry Bernstein, BS '78, is on his third attempt at retirement. After retiring from 33 fulfilling years at IBM Research, he was recruited by the U.S. Department of Defense Advanced Research Projects Agency in Washington, D.C., in 2012 to help secure the nation's defense microelectronics. Retiring again in 2018, he served as a consultant to the U.S. Air Force in the fielding of these technologies. This time retirement may stick. Bernstein and his wife look forward to spending time with their granddaughter.

1980

Gary Sutorius, BS ’80, BS ’82, became a certified bridge inspector, from which he has these takeaways: Bridge inspection is a cross between legalized “playing in heavy traffic” and the TV show *Wild Kingdom*; and his engineering classes had more bridge material in them than he realized at the time. Sutorius unofficially became the oldest player to score a goal in the McKinney Soccer Association coed open league (ages 18 and up). The game ended up being a forfeit, so the goal was not officially recorded.

1981

Larry A. Jones, Res/Fel ’81, MBA ’99, is a St. Louis–based life coach and retired pediatrician whose career has been dedicated to improving the lives of children. Recently, he was invited by MEDRIX (Medical Outreach to Southeast Asia) to present a series of lectures focused on ADHD, autism and suicide prevention at the National Children’s Hospital in Hanoi, Vietnam. His presentations caught the attention of the MEDRIX president, which led to a broader opportunity to contribute to MEDRIX’s mission in Vietnam in educating health-care professionals.

Scott Sandford, MA ’81, PhD ’85, is currently serving as NASA’s senior laboratory astrophysicist at NASA’s Ames Research Center in Moffett Field, California, where he works in the astrophysics and astrochemistry laboratory. He has served as co-investigator and science team member on a number of sample return missions. These include NASA’s Stardust and OSIRIS-REx missions and the Japanese Space Agency’s Hayabusa and Hayabusa2 missions. In 2024, he was awarded a Presidential Rank Award for his work with NASA.

1984

Pete Woods, JD ’84, was recognized in the 2025 edition of *The Best Lawyers in America* in the practice areas of commercial litigation and family law. Woods is the managing partner and a family law, business and commercial litigation attorney at the St. Louis law firm Haar & Woods, LLP.

1986

Monica McFee, CERT ’86, BS ’87, was selected docent board chair at the Saint Louis Art Museum. She joined the art museum as a member of the 2014 docent training class. McFee is also on the board of the St. Louis chapter of the National Society of Arts & Letters and past president of Women and the Kemper at WashU. She is an award-winning marketing and public relations professional, with leadership and giving ties to numerous arts and cultural organizations.

1988

Don Woodruff, MBA ’88, MS ’88, president of Woodruff Construction, was awarded the Build Iowa Award at the Master Builders of Iowa winter conference in March. The award recognizes his outstanding contributions to the construction industry and celebrates his decades-long dedication to innovation, safety, workforce development and community service. Woodruff has been an active leader in numerous industry organizations, including the Iowa Lean Consortium and the Construction Financial Management Association.

1990

Kristen Galles, JD ’90, received the Stonewall Award from the American Bar Association’s Commission on Sexual Orientation & Gender Identity at the ABA’s 2025 meeting in January.

Michael Syrop, JD ’90, was sworn in as public circuit defender with the Georgia Public Defender Council (GPDC) in April. Syrop began as a criminal defense attorney in Cobb County in 1991 and started his own firm early in 1995. Until his 2022 appointment at GPDC, Syrop handled cases ranging from misdemeanors to felonies, including capital cases, in superior and state courts throughout Georgia.

1991

Andrew Caplan, BSBA ’91, and **Seth Fink,** BSBA ’91, met as first-year students at WashU. They stayed in touch and, about 30 years after they met, traveled to Argentina with their wives and children. The trip inspired a business venture that combined their love of wine, and they purchased a small vineyard in Mendoza, Argentina, and created Dos Zetas. They started out solely making Malbec wine but have since expanded their line to red varietals, a crisp white Sauvignon Blanc and a soon-to-be-launched Dos Zetas orange wine.

1992

Patsy McNeil, AB ’92, began a fulfilling career in emergency medicine and health care after graduating from Vanderbilt Medical School in 1996. She is currently the executive vice president, second in command, and system chief medical officer of Adventist Healthcare, a health-care organization near Washington, D.C., that is headquartered in Gaithersburg, Maryland.

Dipak Rajhansa, AB ’92, was elected chairman of the board of Feeding Northeast Florida. FNEFL covers a 12-county area distributing 35 million pounds of food and serving over 270,000 food insecure individuals annually.

1993

Tom Grayson, MD ’93, was honored with the 2024 Paul S. Rhoads Humanity in Medicine Award. Grayson is a general surgeon at Reid Health in Richmond, Indiana. The award is presented to a physician who demonstrates a commitment to clinical quality, who is a leader of programs and services, and who enhances the quality of health care in Reid’s service area. His wife **Kristen,** MSOT ’90, is also a WashU alum.

Horatio Law, MFA ’93, is one of three recipients of the 2023 Stone & DeGuire Award. The awards support WashU alumni in their creative practice. An artist based in Portland who specializes in public art, multimedia and installation, Law emphasizes the importance of building community through his work.

1995

Howard P. Goodkin, PhD ’95, MD ’95, began his term as president of the American Epilepsy Society (AES) in December 2024. Goodkin is the Shure Professor of Neurology and Pediatrics at the University of Virginia and serves as director of the Division of Pediatric Neurology. He has been an AES member for more than 20 years. His clinical and research expertise focuses on pediatric epilepsy and prolonged seizures, known as status epilepticus.

Eric Price, AB ’95, developed an app, ORninja, that teaches surgical support staff such as sales reps, residents, scrub techs and nurses the language of surgery and instruments as well as surgical workflow.

1998

Jay Wolz, EMBA ’98, retired from his position as business editor of the *Southeast Missourian* newspaper in Cape Girardeau, Missouri. Prior to that, he retired in 2018 from Southeast Missouri State University, where he served as director of alumni relations. In addition to periodic freelance writing, he now occupies his time with a variety of community service roles including volunteer work with Parkinson’s disease patients and military veterans.

1999

Amanda Heidemann, MD ’99, is president of the St. Louis Academy of Family Physicians. She has been a member of the academy for over 25 years and served previous terms as a board member, becoming president-elect in 2024. Her focus areas for 2025 include expanding educational opportunities and showcasing the importance of health information technology in delivering high-quality medical care. She currently works as a physician advisor for Wolters Kluwer Health.

2000

Eric Homan, BSBA ’00, has traded options contracts for over a decade.

2001

Nicole (Nikki) Lovenduski, AB ’01, is director of the Institute of Arctic and Alpine Research (INSTAAR) at the University of Colorado

Photo: Washington University Archives

'WE WILL REMEMBER'

(*continued from pg. 54*) "...It may have been a good year or a bad, a long year or a short, but either way we have learned much, and there are things we will never take for granted again. Some day we will look back and remember the friends we had here, the good times, the laughter that was mixed with the work. Now we are just glad to go, if only for three months.

"But this has been a year of our lives, and we will remember."

Boulder, where she was recently promoted to full professor of atmospheric and oceanic sciences.

Tom Wotka, MBA '01, joined the Brownstein Hyatt Farber Schreck firm as a senior policy adviser in the government relations department. He will be based in the Washington, D.C., office. Wotka, a career diplomat, has experience addressing global conflict, energy security and critical minerals issues. His career with the State Department includes leadership roles that he draws on when assessing and developing bipartisan policy initiatives and legislation.

2002

Eric Schultz, AB '02, a political adviser to former President Obama, as well as a former White House principal deputy press secretary and Senate aide, is credited on-screen as a political consultant for the new Netflix political thriller, *Zero Day*, starring Robert De Niro. His public affairs firm The Shultz Group offers strategic communications expertise to public sector, nonprofit and corporate clients.

2003

Melinda Kramer, AB '03, is co-director of Women's Earth Alliance (WEA) and was the recipient of the Heinz Award in the Environment category. WEA works to protect the environment, end the climate crisis and ensure a just, thriving world by empowering women-led climate initiatives and eco-enterprises. WEA provides women leaders — who are often most affected by environmental issues but underrepresented in decision-making processes — with mentorship, skills, business training, funding and a global network of support.

2004

Tatum Getty, BSBA '04, is a founding general partner of THENA Capital, a specialist venture capital firm backing early-stage UK-based medical technology startups. In March, the firm announced the first close of its inaugural UK medtech fund backed by the British Business Bank. As well as providing capital, THENA works closely with startups to bring pivotal medtech innovations to market and support the companies to scale successfully from the UK into other key markets, including the United States.

Sara Reardon, AB '04, DPT '07, a board-certified pelvic floor physical therapist who has been helping women with pelvic floor dysfunction, released her first book, *FLOORED: A Woman's Guide to Pelvic Floor Health at Every Age and Stage* (Harper Collins Publishing, June 2025). *FLOORED* is a rallying cry for women's health and a guide for the pelvic floor. Whether navigating postpartum recovery, seeking relief from pelvic pain or navigating menopause, the book provides insights and strategies for every woman.

2006

Joy Lin, BSBA '06, wrote and illustrated *Big Enough* (Little, Brown and Company, April 2025) under the pen name Regina Linke. Blending traditional Chinese art with digital illustration, the picture book tells the story of a little boy who learns he is big enough to do big things. Lin also wrote and illustrated *The Oxherd Boy: Parables of Love, Compassion, and Community*.

Caroline Stauss, AB ’06, started a new venture with AlignIQ, a small startup whose goal is to help organizations and companies integrate AI solutions for the public good. Along with professional development in AI, they provide consultant services to enrich companies’ missions.

2008

Mike Bezemek, MFAW ’08, wrote *Mysteries of the National Parks: 35 Stories of Baffling Disappearances, Unexplained Phenomena, and More* (Sourcebooks, May 2025). The book takes readers to every corner of America’s national parks that are best known for stunning beauty and outstanding adventure — and these natural wonders also hold some of the world’s greatest mysteries. (See June 2025 digital magazine for more: source.washu.edu/2025/06/of-mystery-and-wonder/.)

Steve Degnan, MBA ’08, was elected board vice president at Joybound People & Pets, a nonprofit dedicated to strengthening the human-animal bond through rescue, adoption, service animal training, vocational programs and community outreach. Degnan is a human resources executive, having served as chief human resources officer North America for Nestlé Purina PetCare (2004 to 2023). A U.S. Army veteran, Degnan played a pivotal role in developing Joybound’s Shelter to Service program, which trains shelter dogs as psychiatric service animals for veterans, first responders and others in need of support.

Aryeh Kaplan, JD ’08, was named partner at Sidley Austin in the Miami office. Kaplan has extensive trial experience, having led over 30 trials across various sectors, including consumer class actions and complex international disputes. He was previously at Pillsbury Winthrop Shaw Pittman LLP.

David Schwartz, AB ’08, MA ’09, co-chaired the 2025 Jewish Educators Assembly conference in March in Chicago.

2011

Monica Smith, AB ’11, joined the firm Axinn, Veltrop & Harkrider LLP as counsel in the antitrust practice group in the Washington, D.C., office. Smith guides U.S. and foreign companies in gaining clearances for complex multibillion-dollar deals, often involving international investigations and second requests by the Federal Trade Commission and the Department of Justice.

2013

Ethan Bell, BSBA ’13, JD ’16, was promoted to partner at Faegre Drinker. Bell focuses on intellectual property in the Denver office. His technical knowledge spans several industries, including computer software, telecommunications, computer networking, content distribution, cloud computing, electronic circuits and mechanical inventions.

Kathryn Dinolfo, MBA ’13, was named vice president of the Above & Beyond Children’s Museum board. She joined the board in 2023 and assisted in the creation of the organization’s next strategic plan. The museum was established in 1993 and has served the children and families of Sheboygan, Wisconsin, and surrounding communities for more than 30 years. Dinolfo is a senior product manager at American Orthodontics.

2014

Vanessa Gravenor, BFA ’14, was selected by the Sam Fox School as a winner of a 2025 Stone & DeGuire Contemporary Art Award. The awards are open to BFA and MFA alumni of WashU working in sculpture, painting, printmaking, photography and/or time-based media. Winners, chosen by a faculty and alumni jury, each receive $25,000 to advance their artistic practice.

2015

Mariah Cushman, BS ’15, is a senior manager of grid innovation and performance at Southern California Edison in Los Angeles. She married **Lane Wenner,** BS ’15, in 2019 and graduated from Harvard Business School with an MBA and MS engineering dual degree in 2023.

En Li, PhD ’15, and **Jeffrey Beckett,** AB ’08, met at WashU in a Japanese history seminar in spring 2008 and were later married. Li also wrote *Betting on the Civil Service Examinations: The Lottery in Late Qing China* (Harvard University Asia Center, 2023). Li is assistant professor of modern East Asian history at the University of Texas at Dallas.

Chun Liu, MArch ’15, was promoted to senior associate at CO Architects, a national design firm specializing in health care, education and research facilities. Liu is a project manager and architect with a diverse background in large, complex health-care and academic projects throughout the United States and abroad.

Evan Weller, MBA ’15, JD ’15, was promoted to special counsel at Cadwalader, Wickersham & Taft LLP.

Eric Willis, MBA ’15, was named to Joybound People & Pets board of directors. Joybound is a nonprofit dedicated to strengthening the human-animal bond through rescue, adoption, service animal training, vocational programs and community outreach. A marketing executive with over two decades at Nestlé Purina PetCare, Willis brings extensive expertise in brand strategy, business leadership and communications to the board. He also serves as a United Way division chair and is a member of WashU’s Olin Business School Alumni Board.

2016

Yvonne Osei, MFA ’16, had an exhibition of new works, *The Mess Is Us*, on display at the Bruno David Gallery April–June. The show investigated systemic violence against Black bodies and communities. She transformed her own photographs and historic images of St. Louis neighborhoods, landmarks, residents and beyond into intricate textile patterns.

2017

Rachel Youn, BFA ’17, was selected by the Sam Fox School as a winner of a 2025 Stone & DeGuire Contemporary Art Award. The awards are open to BFA and MFA alumni of WashU working in sculpture, painting, printmaking, photography and/or time-based media. Winners, chosen by a faculty and alumni jury, each receive $25,000 to advance their artistic practice.

2018

Viola Bordon, BFA ’18, was selected by the Sam Fox School as a winner of a 2025 Stone & DeGuire Contemporary Art Award. The awards are open to BFA and MFA alumni of WashU working in sculpture, painting, printmaking, photography and/or time-based media. Winners, chosen by a faculty and alumni jury, each receive $25,000 to advance their artistic practice.

Tasha Jordan, MAEd ’18, MSW ’18, is the science curriculum coordinator at Riverview Gardens School District. She earned her doctorate from the University of Pittsburgh in June 2024. Her research focused on Black girls’ science identity and the role of culturally sustaining pedagogy. Jordan was also named a 2023 Saint Louis Regional Teacher of the Year.

Alexandra Paszkowski, MLS ’18, married James Stewart Coleman on June 3, 2024, in a simple, religious wedding at Belin Memorial United Methodist Church in Murrells Inlet, South Carolina. That November, Paszkowski and Coleman held an elegant, beachfront courthouse wedding overlooking the Sea of Cortez in Los Cabos, Mexico, with witnesses in attendance. The couple resides in the Myrtle Beach area.

2019

Aliza Shatzman, JD ’19, received three awards for her innovative work through her nonprofit, The Legal Accountability Project: the American Legal Technology Award (in both the courts and individual categories) and the Ms. JD Limitless Leadership Award. The Legal Accountability Project fosters transparency and accountability in the judiciary.

2020

Carson Borbely, AB ’20, is a licensed clinical social worker serving LGBTQ+ youth in Wisconsin.

Photo: Washington University Archives

A BIG TEAM EFFORT
These WashU students from the 1970s are just some of the contributors who worked hard to capture campus life in the 1975 *Hatchet*. If you contributed to the yearbook, please share your story with the *WashU Magazine* editors at wustlmageditor@wustl.edu, and we'll consider including your remembrance in the next print issue.

Daniel Hebert, LLM '20, co-authored new research titled "Redesigning Experiential Learning Opportunities for the Virtual Environment: Considerations for Online Business and Accounting Programs." The paper was published in the June 2024 edition of *Business Education Innovation Journal*.

Lexi Lampkin, AB '20, moved to Nashville and is the new talent manager for Opry Entertainment Group, which owns Ryman Auditorium, the Grand Ole Opry, Ole Red and various music festivals. Previously, she was the talent coordinator for Dick Clark Productions in Los Angeles.

2021

Alyssa Huffman, MBA '21, founded ALLUMIN8, a startup pioneering a new era of surgical implants with therapeutic hardware. The unique system can draw bone marrow stem cells into the hardware, potentially reducing infection risks and offering organic strengthening of bone and faster bone fusion that improves outcomes in orthopedic, spine, dental and veterinary surgery. ALLUMIN8 was a finalist for the 2025 Global Impact Award.

Nasja Wickerhauser, AB '21, and **Wes Weske,** AB '20, were married Dec. 14, 2024, in Kansas City, Missouri. Weske completed medical school at the University of Missouri-Kansas City, and Wickerhauser completed dental school there in May.

2022

William Satloff, AB '22, curated the exhibit *Pastoral on Paper* that was on display at the Clark Art Institute in Massachusetts, March through June. Satloff also presented the opening lecture for the show.

2023

Kendra Key, MFA '23, MAT '24, was named one of Missouri's Outstanding Beginning Teachers by the Missouri Association of Colleges for Teacher Education. The award recognizes outstanding teachers in their first two years of service. Key is the dance program director at University City High School in St. Louis.

Charlie Yeldham, AB '23, was named one of Missouri's Outstanding Beginning Teachers by the Missouri Association of Colleges for Teacher Education. The award recognizes outstanding teachers in their first two years of service. Yeldham teaches world history and project-based learning U.S. history at Lindbergh High School in St. Louis.

2024

Ava Farrar, AB '24, is a film editor and independent filmmaker. She is filming a feature, *Sweet Young Thing*, in St. Louis this summer. The short film explores the relationship between an older woman, Dorothy, and her 19-year-old granddaughter, Delaney. The film was inspired by Farrar's relationship with her grandmother. Farrar's other films are *Thicker Than Blood*, which won best student film at the St. Louis Filmmakers Showcase before being tapped for the St. Louis International Film Festival, *Classroom 230*, and *Garbage Man*.

Elaine Griffin, JD '24, wrote *Shadows in the Pleasure Gardens: Regarding Robberies and Race Horses* (Black Rose Writing, June 2025). The book weaves together timeless themes, including the personal search for purpose and fulfillment, pressure to conform to societal expectations, corruption of the powerful and how horses help people escape it all, if only for a bit.

Spencer Lampkin, BSBA '24, is working for the private equity group JRL in New York. The firm is opening Casa Piada in Greenwich Village and starting the ASL Techno festival in Pesaro, Italy, and SKYX lighting in Miami.

Becky Moon, BFA '24, had her exhibition *Sticks and Stones* on display at the Bruno David Gallery, April-June. The display was a series of paintings that explore the themes of belief, tangibility, mass and gravity.

Photo: Tim Parker/WashU

Brad Warner, MD, was among the faculty members honored by WashU Medicine medical students during the Distinguished Service Teaching Awards on April 16, 2024.

Brad Warner, MD, beloved pediatric surgeon and researcher at WashU Medicine who specialized in gastrointestinal surgery in children, died at his home April 4, 2025. He was 66.

Warner, the Jessie L. Ternberg, MD, PhD, Distinguished Professor of Pediatric Surgery, had been the director of the Division of Pediatric Surgery at WashU Medicine and pediatric surgeon-in-chief at St. Louis Children's Hospital from 2007 to 2023.

He was an exceptionally talented surgeon with special expertise in pediatric cancer surgery and surgical procedures for inflammatory bowel disease. Over a long and distinguished career, first in Cincinnati and later in St. Louis, he mentored countless students and residents, who credit Warner's warmth and kindness to helping them advance in their own careers.

Warner grew up in St. Louis and knew he wanted to be a doctor even as a child, having been inspired by his mother's stories from her work as a nurse. As a teenager, he volunteered in the emergency room of what was then Jewish Hospital, where WashU Medicine surgeons allowed him into the operating room to observe procedures.

He earned his medical degree from the University of Missouri-Kansas City School of Medicine before moving on to a residency in surgery at the University of Cincinnati Medical Center and a fellowship in pediatric surgery at Cincinnati Children's Hospital. He remained in that city for 25 years, eventually becoming an attending surgeon in the Division of Pediatric Surgery, program director for the pediatric surgery residency and director of surgery research at Cincinnati Children's Hospital. Warner also was professor of surgery and of pediatrics at the University of Cincinnati College of Medicine.

The opportunity to have a leadership role in pediatric surgery at WashU Medicine and St. Louis Children's Hospital drew Warner back to St. Louis in 2007. He brought considerable energy to the department, recruiting new surgeons and building new surgical programs to address the needs of patients near and far. Throughout his career, he touched the lives of countless patients, families, students, residents and colleagues, and made everyone feel seen and valued.

Warner's own research was directly inspired by a patient he encountered early in his career: a 4-year-old with short bowel syndrome, a condition characterized by shortened intestines, which makes it difficult to absorb nutrients. Because the boy's condition prevented him from digesting food normally, he carried a backpack with a battery-powered feeding pump that delivered nutrients into a vein. Warner was so moved by the child's resilience and determination, he dedicated his own research to improving outcomes for short bowel syndrome, particularly examining how the intestine grows and recovers after portions of the organ have been surgically removed.

Warner also was deeply committed to training the next generation of pediatric surgeons. He developed a world-class pediatric surgery training program at WashU Medicine, which quickly became a top rotation and residency choice for medical students.

A popular mentor, he was honored last year with a Distinguished Service Teaching Award, bestowed by WashU Medicine medical students in appreciation for faculty members' dedication, patience and skill in training aspiring physicians.

Floyd E. Bloom, MD '60, Hon DSc '98, honorary emeritus trustee and editor-in-chief of *Science* from 1995 to 2000, died Jan. 8, 2025. He was 88.

Bloom was a professor emeritus in molecular and integrative neurosciences at the Scripps Research Institute in La Jolla, California. In his career, he made groundbreaking contributions to modern neuroscience and was a co-author of the defining textbook The *Biochemical Basis of Neuropharmacology*, first published in 1970 and now in its 8th edition.

A 1960 graduate of WashU Medicine, he was elected to the WashU Board of Trustees in 1998 and became an emeritus trustee in 2009. He served on the Education Policy Committee (now known as the Academic Affairs Committee), including as chair from 2003-08. He also served on the former Research-Graduate Affairs Committee. Bloom received a Distinguished Alumni Award from WashU in 1980 and an honorary degree in 1998. In addition, he served as a member of the medical school's National Council for many years, including a stint as chair. He was the recipient of WashU Medicine's Second Century Award in 1997 and its Alumni Achievement Award in 2010.

Glenn Cahn, AB '75, a psychologist in Wilmington, North Carolina, died Dec. 17, 2024, from pancreatic cancer.

After earning his degree in psychology from WashU, Cahn earned a master's degree and PhD at the California School of Professional Psychology. He gravitated to psychological testing, specializing in testing employees at nuclear power plants to ensure that they were psychologically fit and wouldn't put people at risk, as well as veterans for PTSD and children for ADHD, anxiety and other mental health conditions. He moved to Wilmington more than 20 years ago, where he was instrumental in the growth of the Cape Fear Psychologists Association. In 2025, he was given the President's Award by the North Carolina Psychological Association for contributions to the NCPA or to psychology in the state of North Carolina.

Carl W. Conrad, associate professor emeritus of classics in Arts & Sciences, died at his home in Yancey County, North Carolina, Feb. 20, 2025. He was 90.

Born in Washington, D.C., Conrad grew up in New Orleans and attended Tulane University, earning a bachelor's degree in history in 1955 and a master's degree in classics in 1956. He then spent a year at the Ludwig Maximilian University of Munich as a Fulbright Scholar and then earned a doctorate in classical philology from Harvard University in 1964.

Conrad joined the WashU faculty in 1961, teaching Greek and Latin languages and literature as well as biblical studies. Other scholarly interests included Greek tragedy, Latin poetry and the history of ideas in the Greco-Roman-Hellenistic tradition. He took a keen interest in Propertius' elegies, Plato's *Republic* and, later, the emergence of New Testament documents in the Hellenistic world.

As a faculty member, Conrad served on several academic and administrative committees, including the Graduate Council and the General Studies Committee. He served

as chair of the Department of Classics in 1978. Then in 1987, Conrad and three other faculty members in classics began conducting research with the Ibycus, a specialized computer containing three-fourths of known Greek literature from roughly 750 BCE to 600 AD. Housed in the department's Classics Study Center, it was one of just 12 Ibycus computers then in operation. Beginning in 1998, Conrad became an active contributor to the "B-Greek" internet forum, engaging with scholars and enthusiasts on topics related to the Greek language and biblical texts. In 2006, the Department of Classics established the Carl Conrad Prize for Excellence in Classical Studies, an annual undergraduate award.

Melvin C. Dace, AB '58, MD '62, died March 30, 2025, in Gainesville, Florida. He was 88.

Dace was born in Sikeston, Missouri, and grew up knowing he wanted to be a doctor. While an undergraduate at WashU, he met the love of his life, Dorothy Jane Reinhart, and they married in 1958, shortly before he entered medical school. After completing a medical internship at the University of Florida in 1963, he was drafted into the U.S. Army and served two years as a captain, running several medical units and caring for over 20,000 dependents in Germany. Returning to the U.S. in 1965, he completed his residency at the University of Florida and became a medical internist specializing in cardiology. He would go on to lead the Gainesville Medical Group and was a key member of the team that brought the North Florida Regional Hospital to Gainesville, where he would serve as chief of staff for several years.

He retired from private practice in 1993 and was chosen as assistant chief medical officer for the 1996 Olympic Games in Atlanta. Afterward, he was recruited by the University of Florida to serve as the stadium medical director, leading the medical operations at Ben Hill Griffin stadium during all home football games and other key events.

Julian Fleischman, associate professor emeritus of molecular microbiology at WashU Medicine, died Jan. 18, 2025, at his home in Sharon, Massachusetts, from complications following a fall. He was 91.

Fleischman joined WashU Medicine in 1964 as a young PhD whose résumé included work in the laboratories of three Nobel laureates. Born in Philadelphia in 1933, he earned a bachelor's degree from Yale University in 1955 and continued his studies at Harvard University. At Harvard, he became the first biochemistry graduate student of James D. Watson, who, along with Francis Crick, had recently published a paper proposing the double-helix structure of DNA. Watson received a Nobel Prize in 1962.

Fleischman earned his doctorate from Harvard in 1959 and then worked in the laboratory of Rodney Porter at St. Mary's Hospital in London. Porter, now considered the founder of modern immunochemistry, would later receive a Nobel Prize based on research using antibodies that Fleischman brought to his lab from the United States.

After his work in Porter's lab, Fleischman spent a year at the Pasteur Institute in Paris with François Jacob, also a Nobel Prize winner, followed by a year at the Weizmann Institute in Israel, before joining WashU Medicine in 1964.

During his 34-year tenure at WashU, he taught immunology to thousands of medical students and earned an Emerson Excellence in Teaching Award. He retired in 1998 but remained active in the molecular microbiology department as long as his health permitted.

"Julian made significant contributions to our understanding of the structure and assembly of immunoglobulins during his time in the department," said Sean Whelan, head of the Department of Molecular Microbiology and the Marvin A. Brennecke Distinguished Professor at WashU Medicine. "He was also an active educator of graduate and medical students.

Kevin Grass, BFA '90, died in a bicycle accident Feb. 5, 2025, on his morning commute to his teaching job as a professor of drawing and painting at St. Petersburg College in St. Petersburg, Florida. He was 56.

Grass was a noted professional artist whose work can be viewed online. He is survived by his wife, Michaela Oberlaender, and their son, Nicholas Grass.

Trevor Sadama Hu, BS '13, died Feb. 22, 2025, in Honolulu, Hawaii. A 2013 graduate of the McKelvey School of Engineering in systems science and engineering, with a second major in finance, Hu was a valedictorian and the student speaker at McKelvey Engineering's recognition ceremony.

"Trev's valedictorian speech was not about studying hard, working hard or being successful in life," writes his father, Hayden Hu, "but rather it was about putting 'people first.' I want you to know that Trevor lived his life just as he asked us to that day he gave his speech." In addition to his father, Hu is survived by his mother, Lorna; sister, Rachel Hu Kaui (Kawika); nieces, Nova and Andi; and maternal grandmother, Fujiko Akamine.

Charles Lipton, honorary emeritus trustee, died Jan. 4, 2025, in Wellington, Florida. He was 96.

Lipton was a retired chair of the board and senior counselor at the public relations firm Ruder-Finn Inc. in New York, where he began as an account executive in 1953. Having earned a bachelor's degree from Harvard University in 1948, he previously worked at 20th Century Fox and at Cecil & Presbury.

Lipton was first elected to the Washington University Board of Trustees in 1977 and became an emeritus trustee in 1999. He served on the board's Educational Policy Committee (now known as the Academic Affairs Committee) and on the Development Committee. Lipton also served as chair of the WashU Public Relations Council from 1980 to 2011.

John S. Loy, BFA '54, artist, teacher, humanitarian, patron of the arts and activist, died March 12, 2025, in Clinton, New York. He was 94.

Born in St. Louis, Loy earned his BFA with a concentration in drawing and painting from the School of Fine Arts in 1954. During his time at WashU, he met **Mary Gaylord,** AB '54, a painter who would become his 70-year artistic companion. They married soon after graduation, and in that same year, John received a fellowship to Yale-Norfolk Summer Art School in Norfolk, Connecticut, before being drafted into the U.S. Army. He was stationed as a clerk in Augsburg, Germany, where Mary soon joined him. This experience abroad sparked their lifelong love of traveling together. After returning to the U.S., John attended Cranbrook Academy of Art in Bloomfield Hills, Michigan, where he earned an MFA in drawing and painting.

In 1958, Loy began a long career as a working artist and teacher, starting at WashU's School of Architecture while serving as program director and art instructor at People's Art Center in St. Louis. In 1960, he accepted a teaching position at Pratt Munson College of Art and Design in Utica, New York. The couple moved to Utica, where they had two daughters. They quickly became fixtures within the local arts, education and social activism communities.

Loy taught at Pratt Munson College of Art and Design as a drawing and painting professor for over 30 years. He taught drawing at Hamilton College for a brief spell after retiring from Munson. Loy was also on the film committee for Munson Art Museum and served on the board of directors at Sculpture Space in Utica, as well as being a consistent contributor to fundraisers.

Loy is best known for his hard-edged, colorful, abstract oil paintings, though he worked in other media and with a variety of subjects. One subject he found endlessly intriguing was the beautiful, soft granite rocks of the Penobscot Bay in Maine. Loy and his family spent most summer holidays on Deer Isle, Maine, where he devoted countless hours to brush and ink drawings of the folded rocks and the contrasting water and foliage. He also created images inspired by the architecture and imagery in his travels. He was fascinated with Mayan and Aztec cultures and created a series of paintings based on hieroglyphics.

Loy is survived by his wife of 70 years, Mary Gaylord Loy, his two daughters and sons-in-law, and four grandchildren.

Claire S. Murphy, AB '21, died Feb. 16, 2025, after injuries sustained as a ski patroller at Mammoth Mountain in California. Caught in an avalanche on Feb. 14, she succumbed to her injuries two days later. Murphy was 25.

A native of New York City, she earned a degree in philosophy-neuroscience-psychology in Arts & Sciences in 2021. She began a master's program in social work at the Brown School before transferring to the University of Southern California and earning an MSW there in August 2024. Though she was raised in cities, Murphy's heart belonged to the mountains.

While finishing graduate school in Los Angeles, she trained in emergency medicine and fulfilled every requirement to join ski patrol. Her passion and determination led her to Mammoth Mountain, where she officially began as a ski patroller Dec. 2, 2024. In just two months on the job, she made an extraordinary impact, responding to 56 incidents. She quickly rose to the top of her rookie class and was known for her courage, unending quest for knowledge and deep compassion.

She is survived by her mother, Lisa Apa, and stepfather, Michael Apa; her father, Greg Murphy, and stepmother, Cori Murphy; her brother, Cole Murphy, and two beloved sisters, Charlotte and Isobel.

William D. Owens, MD, a highly regarded professor emeritus of anesthesiology and former head of the Department of Anesthesiology at the School of Medicine, died Jan. 3, 2025, while in hospice care. He was 85.

Born in Gerald, Missouri, in 1939, Owens earned a medical degree from the University of Michigan in 1965. After serving with distinction in the U.S. Navy, he completed residency training at Massachusetts General Hospital and joined the faculty at Harvard Medical School. He joined Washington University in 1973 and rose to full professor in 1981. He served as head of the Department of Anesthesiology and anesthesiologist-in-chief at Barnes Hospital and St. Louis Children's Hospital from 1982 to 1992. He retired from the university as a professor emeritus in 2004.

As department head, he is credited with expanding and strengthening clinical care and professional training, launching basic and clinical research programs, and establishing the anesthesiology critical care and pain management programs at WashU Medicine.

A pioneer in clinical outcomes research and a champion of anesthesia education, his work continues to influence anesthesiology practices worldwide. He held national leadership roles with the American Society of Anesthesiology, the American Board of Anesthesiology, the Academy of Anesthesiology, the Foundation of Anesthesia Education and Research, and the World Federation of Societies of Anesthesiologists.

Owens also authored the book *History of Anesthesiology and the Department of Anesthesiology, Washington University in Saint Louis School of Medicine and Barnes Hospital, 1912–1992*, chronicling the department's rich history and its contributions to the field.

"Dr. Owens shaped the field of anesthesiology through his clinical expertise, teaching and research in clinical outcomes," said Michael S. Avidan, MBBCh, the Dr. Seymour and Rose T. Brown Professor of Anesthesiology and head of the Department of Anesthesiology at WashU Medicine. "He was a beloved mentor and educator."

John Christian Sawyer, MEM '95, passed away on May 29, 2025, at the age of 64.

Sawyer began his academic journey at Southeast Missouri State University in Cape Girardeau, where he earned a mechanical engineering degree. He went on to earn a master's degree in engineering management at WashU in 1995. And he spent much of his professional life as a dedicated employee of Saint-Gobain, a firm that designs, manufactures and distributes materials and services for the construction and industrial markets.

In 2022, he and his wife, Stephanie, both retired to enjoy more time together, and they were often found fishing or riding motorcycles — two of their favorite pastimes.

Roshelle (Phillips) Schindling, AB '63, MA '72, died Feb. 27, 2025, in Sullivan, Missouri. She was 83.

At WashU, she earned a bachelor's degree in education in Arts & Sciences and later a master's degree in education. At one time, she acted as counselor to the student nurses of St. Luke's Hospital in St. Louis.

Jennifer Toth, AB '89, a journalist and author whose books and articles illuminated stories of struggle and crisis, died April 12, 2025, in Silver Spring, Maryland, of respiratory complications. She was 57.

Toth graduated from WashU in 1989 with a bachelor's degree in history and then went on to earn a master's degree in journalism from Columbia University in 1990. Her work as a journalist was widely praised for its empathy and reporting depth, which included forensic probes into the foster-care system after an Ohio teen killed a woman who had cared for him.

Toth's books also were seen as offering wider commentaries on the weaknesses and failings in systems set up to aid the most vulnerable. Among them was *The Mole People: Life in the Tunnels Beneath New York City* (1993), which chronicled the hidden world of "mole people" living in abandoned tunnels and subterranean nooks. For this first book, she spent a year under the streets of New York City researching and interviewing subjects. In her second book, she profiled five people — children and young adults — who had been raised in emergency shelters and foster homes across the country in *Orphans of the Living: Lives of America's Children in Foster Care* (1997).

She is survived by her husband, Craig Whitlock, a journalist at *The Washington Post*, and son, Kyle.

The following death notices were submitted from Jan. 1, 2025–April 30, 2025. Please contact Advancement Services at WUADDataChange@wusm.wustl.edu to report the death of an alumna or alumnus. Please submit full obituaries for consideration to wustlmagclassnotes@wustl.edu.

1940–49

Robert H. Lund, MD '49; Feb. '25
John F. Schmidt, BS '49; Feb. '25

1950–59

Ronald L. Aylward, AB '54, JD '54; Jan. '25
Joan F. (Blumenthal) Grossmann, AB '54; Jan. '25
John S. Loy, BFA '54; March '25
Joanne J. (Jacobs) Kohn, AB '55; April '25
Fred W. Lindecke, AB '56; March '25
Marlene V. (Hebeler) Renz, BSBA '56; Jan. '25
Carol (Friedman) Dardick, AB '57; April '25
Robert L. Merriman, BSBA '57; Jan. '25
Ann Louise (Louys) Rempel, AB '57; Feb. '25
Melvin C. Dace, AB '58, MD '62; March '25
C. Alden Mead, PhD '58; Feb. '25
Gordon H. Smith, AB '58; March '25
Richard O. Funsch, LLB '59; April '25
Terry R. West, AB '59, BS '59, MA '62; March '25

1960–69

Floyd E. Bloom, MD '60, Hon DSc '98; Jan. '25
James C. Wilson, BS '60; Jan. '25
Allan K. Bell, BS '61; March '25
Joyce E. (Boettcher) Robb, AB '61; April '25
Chia-Wei Woo, MS '61, PhD '66, Hon DSc '96; March '25
John F. Tomich, BS '62, DSC '67; April '25
Roshelle (Phillips) Schindling, AB '63, MA '72; Feb. '25
James I. Metzger, MS '65; April '25
Ray C. Schulz, BS '65, MS '68; Feb. '25
Kathleen S. (Suessdorf) Blevins, AB '67; March '25
Donald L. Bryant, JD '67; March '25
Robert W. Duffy, AB '67; Feb. '25
Frank Vinicor, MD '67; March '25
Jean-Paul Gendron, MS '68; Feb '25
Mark C. Harlow, MD '68; Feb. '25
Donna A. Hodax, AB '68; March '25
Donald G. Whitcomb, AB '68; March '25
Donald A. Azar, MA '69; Jan. '25
James F. Trucks, LLM '69; Feb. '25

1970–79

Robert C. Brasch, MD '70; Feb. '25
Janet (Menzel) Lenz, BS '70, MS '72; Jan. '25
Steven S. Cho, AB '71; Jan. '25
John Joseph Kester, MA '74, PhD '80; March '25
Glenn Cahn, AB '75; Dec. '24
Samuel Goldstein, BSBA '75, MBA '75; April '25
Larry D. Diamond, MHA '79; Dec. '24

1980–89

Charles Ferdinand Baker, DMD '82; March '25
James Alvin Hardin, MBA '84, JD '84; Feb. '25
Devon Overlock Howe, MBA '86; Jan. '25
Jennifer Ninel Toth, AB '89; April '25

1990–99

Robert Allen Carter, MBA '90; Jan. '25
Kevin Grass, BFA '90; Feb. '25
John Christian Sawyer, MEM '95; May '25
Andrew D. Cissell, BS '98; Nov. '24

2000–09

Gaston Armand DeVigne, BSBA '08, MS '08; Feb. '25

2010–19

Trevor Sadamu Hu, BS '13; March '25

2020–25

Claire S. Murphy, AB '21; Feb. '25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Studying ’60s-style

Residential living has changed a lot in the past 60 years, but some things remain the same: the need for a quiet, comfy place to study. Does anyone remember this WashU dormitory or student engrossed in Japanese history? Please write to wustlmageditor@wustl.edu.

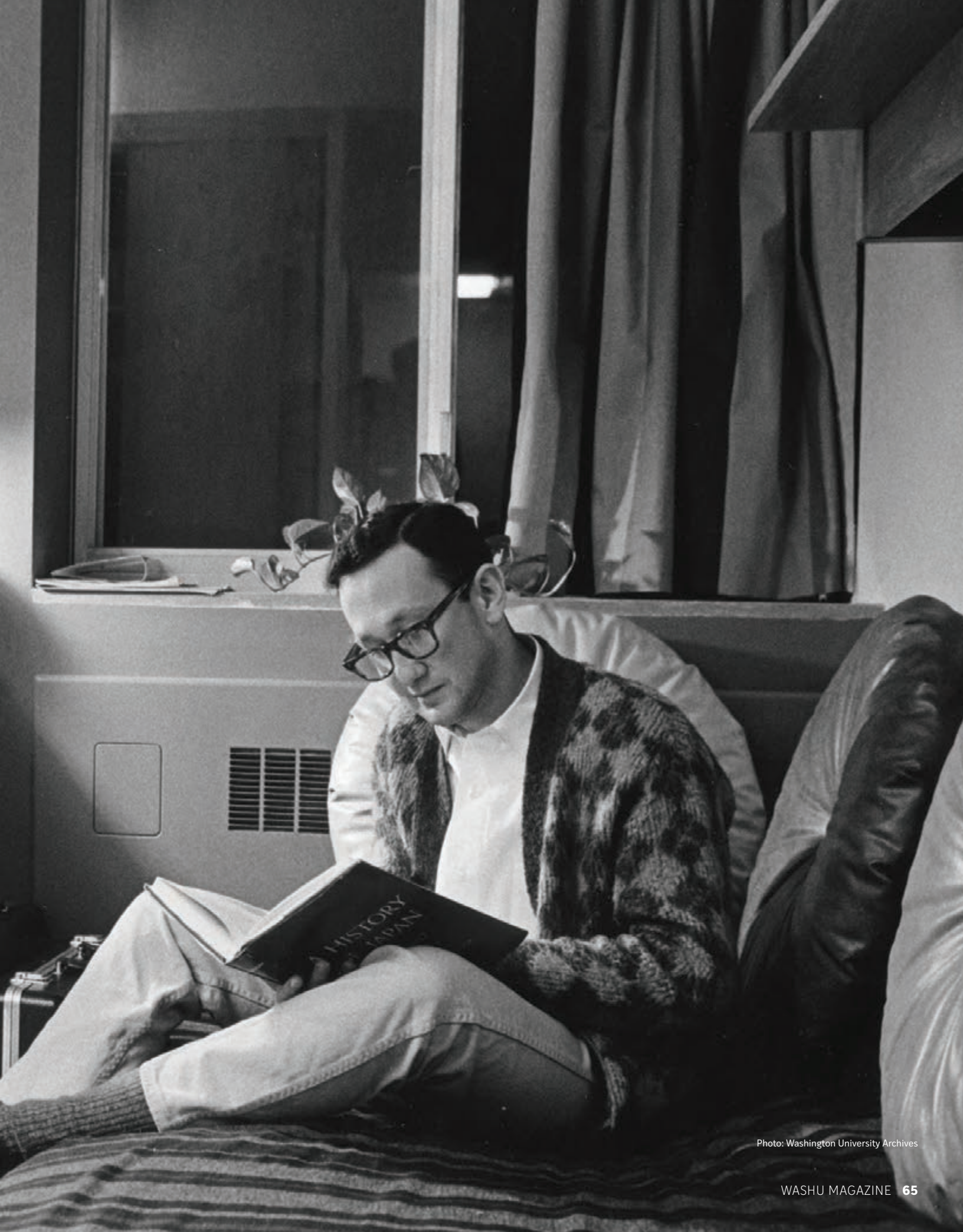

Photo: Washington University Archives

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In high spirits

Commencement is the happiest day of the year at WashU. Here, four new graduates jump for joy after the May 12 ceremony.

Photo: Whitney Curtis/WashU