

{ Navigation tools }



COVER / BACK PAGE



ENLARGE QUADRANT



RETURN TO SPREAD VIEW



PREVIOUS / NEXT PAGE



TABLE OF CONTENTS
CLICK ON TITLES TO GO TO STORY



SCROLL PAGE
(IN ENLARGED VIEW)



WEB LINKS
URLS IN TEXT & ADS ALSO CLICKABLE



CLICK HERE TO EXIT
OR USE ctrl/cmd-Q

WINTER 2010/11

CONNECTING YOU TO WASHINGTON STATE UNIVERSITY » THE STATE » THE WORLD

WASHINGTON STATE

m a g a z i n e



v10n1

Civility in politics WSU ALUMS AT THE STATE CAPITAL

ALSO IN THIS ISSUE: UNDERSTANDING THE "CIVILITY CRISIS" :: FIRST WE EAT :: WHERE LAND AND WATER MEET



FEATURES

24 :: Civility in Politics and Campaigns

Washington Secretary of State Sam Reed '63, '68 is recognized by his smile and civility as well as his nonpartisan statesmanship. Fortunately, he is not entirely alone. *by Larry Clark*

34 :: First We Eat

She studies appetite. He studies satiation. Together, Sue and Bob Ritter have plumbed the mysteries of what happens when we eat. *by Eric Sorensen*

42 :: Where Land and Water Meet

For Todd Mitchell '97, the purchase of Kiket Island near Deception Pass meant the return of a cultural resource to his people. For the other myriad residents of the Puget Sound area, it is another decisive step toward restoring a priceless resource. *by Hannelore Sudermann*

ESSAY

32 :: Understanding the “Civility Crisis”

There is a reason why rude and loutish political talk shows dominate the airwaves—they attract huge audience ratings and advertising dollars. But is rude behavior good for democracy? *by Cornell Clayton*

PANORAMAS

11 The deadly cough :: **12** A Washington sabbatical for Afghan scholars
13 A sinking economy sparks scholarships :: **22** Nature twice: Poetry and natural history :: An arboretum for WSU

DEPARTMENTS

3 FIRST WORDS :: **7 LETTERS** :: **15 SHORT SUBJECT:** A new land
18 SPORTS: Living for a cure :: **20 IN SEASON:** Chickpeas :: **51 CLASS**
NOTES :: **55 IN MEMORIAM** :: **58 NEW MEDIA** :: **60 LAST WORDS**

TRACKING

51 Mieko Nakabayashi '92—Making policy public :: **53** Joe Fugere '84—Feeding his interests :: **55** Mary Kaufman-Cranney '78—Call of the wild :: **57** Alumni news

Cover illustration: State Rep. Sam Hunt '67, Washington Secretary of State Sam Reed '63, '68, and State Sen. Linda Evans Parlette '68 by Joe Ciardiello



Imagine TOMORROW



**FOURTH ANNUAL PROBLEM-SOLVING COMPETITION
FOR WASHINGTON HIGH SCHOOL STUDENTS**

May 20–22, 2011

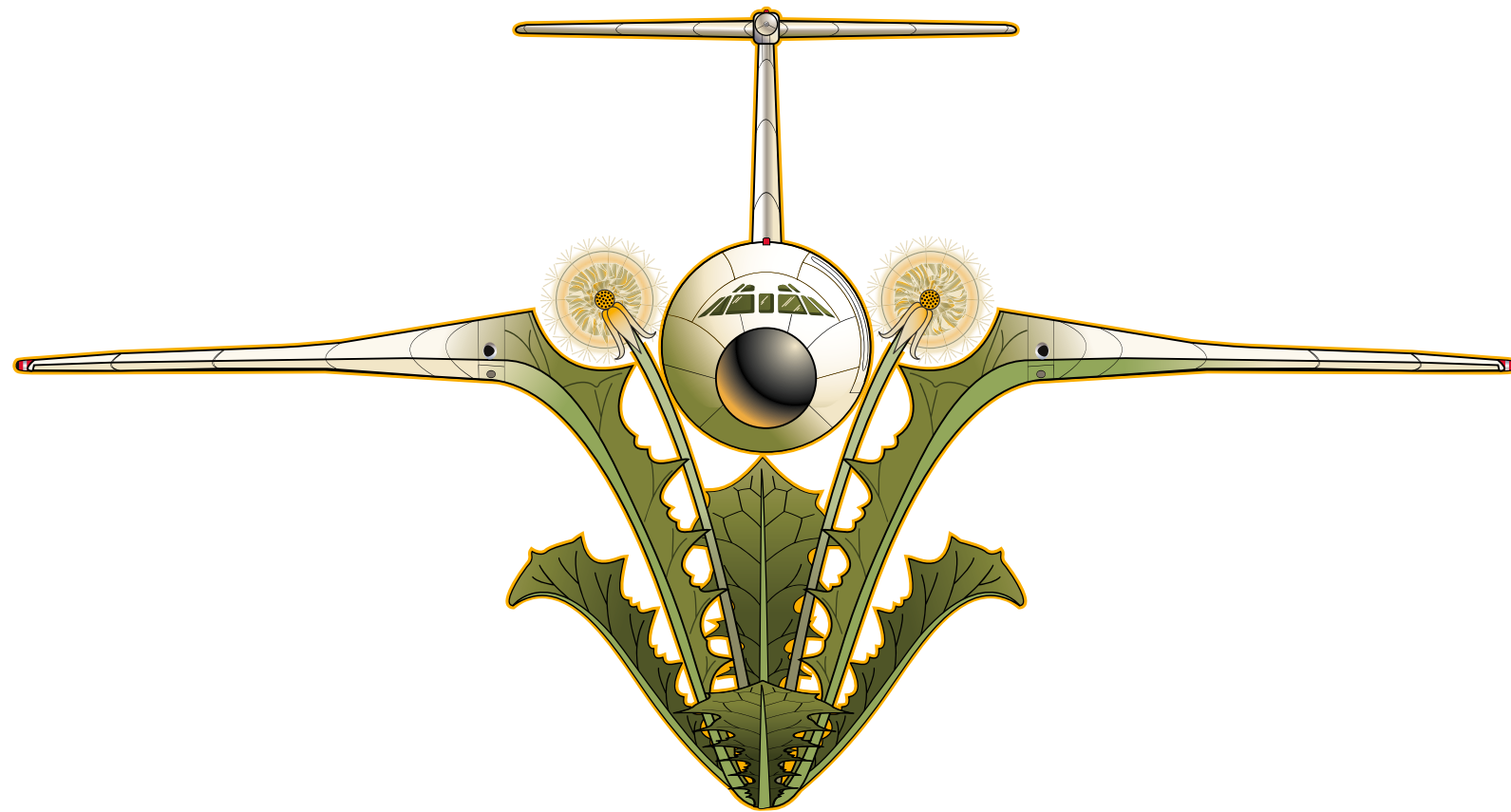
Opportunities in all subjects, including social studies, sciences, and design

\$100,000+ in cash prizes
thanks to our sponsors



imagine.wsu.edu





HELPING BIG IDEAS TAKE FLIGHT AS WE GROW OUR OWN FUEL

Imagine a day when commercial jet flights are powered by earth-friendly biofuels created in the Pacific Northwest. Far-fetched? Actually, it's closer than you think—thanks to a unique partnership between WSU, airports, and the aviation industry. Working together to reduce our petroleum dependence, we're creating new jobs to grow, harvest, and refine sustainable fuels from our farms, forests, and waters.

At Washington State University, we help big ideas take flight.



cleantech.wsu.edu

first words

Common cause :: For reasons explained later in this issue, I was walking down Pike Street on a beautiful day in July with Rafi Khalil Nasar, an Afghan lawyer. We were just discussing the difference between civil and Shariah law when we came upon a couple of young protesters. They were both holding large posters of President Obama with a Hitler mustache. The male of the pair came up to me and insisted, “Wouldn’t you like to get rid of this jerk?”

Perhaps my reaction was exacerbated by having just listened to a group of idealistic scholars from Afghanistan discuss their efforts to build a society out of ideological and economic chaos; regardless, something inside me snapped, and I responded with a declarative sentence even less civil than the protestor’s taunt.

Unable to contain my anger even in my ensuing embarrassment, I tried to explain my reaction to my companion. Nonplussed, Rafi shrugged. “You have a good democracy,” he said.

Increasingly troubled by the seemingly rampant incivility in our culture, I had gathered some comfort in not having succumbed myself to public, or even digital, displays of vitriol. But now, I had met the enemy, and apparently he was I. At least I was no longer merely a spectator.

Anyone who believes in a Golden Age for anything, be it politeness or any other virtue, probably deserves to be sent back to that mythical time to see how he or she fares. And certainly, we are reminded later in this issue that incivility is hardly novel to our milieu.

Still, canings and purges, even civil wars aside, there is something particularly vicious and distressing about our current behavior. I’m not referring to surly teenagers or the simple lack of manners. Simple boorish behavior is not necessarily incivility. Rather, it is our discourse, whether it be in the House of Representatives or the streets of Seattle.

“Civility,” writes Adam McClellan in one of a fine collection of essays (*Civility*, University of Notre Dame Press, 2000) that grapple with the problem of civility, “is a disposition that one individual may have towards another or, increasing the scope, a mood that obtains in a group of individuals or a society, when the following three criteria are met by both or all sides in a human relationship: the individual acknowledges the full humanity of both him- or herself and the other, recognizes his or her interdependence with the other, and desires to make common cause with the other.”

We do not seem to be at this place, at least if our politics and the Internet are any indication. The promise of civility seems dim when everyone has an electronic pulpit and truth seems increasingly based on the loudness of one’s assertion. So it lends a special satisfaction to find later in this issue that some of the remaining civil good guys are our own.

Tim Steury, Editor

Catapult Your Career

As a WSUAA member, you'll receive instant access to WSUAA Career Support Services. Key online features include:

- **LinkedIn with Cougars:** Review employment opportunities, post a job opening, and join the most popular and expansive online networking tool for Cougars everywhere
- **Cougar Business Network:** Find Cougar-owned businesses across the state, nation, and world
- **Career Movement:** Receive discounted pricing on online seminars that will help you differentiate your resume and sharpen your interviewing skills to help you get noticed and get the job
- **Kaplan Test Prep:** Receive discounted rates on preparation courses for advanced degree and professional licensing exams
- **Cougar CareerBeam:** Launch yourself into a massive job-search database and resource center, and find Cougars in management roles
- **North 40 Network:** For alumni over the age of 40, North 40 Network offers one-on-one career assessment, consultation, and career action plan development
- **WSU CareerLink:** Discover a growing suite of web-based resume, job posting, and recruiting tools

Connect to thousands of Cougars, advance your career, achieve your professional goals, and enhance the success of your Cougar-owned or managed business.

www.alumni.wsu.edu/careersupport

WASHINGTON STATE UNIVERSITY
ALUMNI ASSOCIATION

v10n1 WINTER 2010/11

WASHINGTON STATE
m a g a z i n e

EDITOR Tim Steury
ASSOCIATE EDITOR/SENIOR WRITER Hannelore Sudermann
ASSISTANT EDITOR/WEB EDITOR Larry Clark '94
ART DIRECTOR John Paxson
SCIENCE WRITER Eric Sorensen
PHOTOGRAPHERS Shelly Hanks '88, Robert Hubner

Contributors

WRITERS: Cornell Clayton, Rikki King '10, Jason Krump '93, Debbie Lee, Rich Roesler, Earl Otis '51, Angela Sams '11
PHOTOGRAPHERS: Ingrid Barrentine, Matt Farnsworth, Matt Hagen, Zach Mazur '06, Rob Nevitt, Bill Wagner, Ted S. Warren
ILLUSTRATORS: Joe Ciardiello, David Wheeler

PRESIDENT Washington State University, Elson S. Floyd
VICE PRESIDENT University Advancement and External Affairs, John Gardner

LETTERS: *Washington State Magazine* invites letters on its content or on topics related to the University. Letters for publication must be signed and may be edited for style, length, and clarity. Shorter letters are more likely to be published due to space limitations. Writers should include an address and daytime phone number. Letters may be submitted online at wsm.wsu.edu/contact or sent to:

Washington State Magazine
PO Box 641227
Pullman, WA 99164-1227
email: wsm@wsu.edu fax: 509-335-8734

Washington State Magazine is published quarterly by Washington State University, PO Box 641227, Pullman, Washington 99164-1227. Editorial offices are located at Washington State University, Information Technology Building, Room 2013, Pullman, Washington 99164-1227.

Views expressed in *Washington State Magazine* are those of the authors and do not necessarily reflect official policy of Washington State University. Alternate formats will be made available upon request for persons with disabilities.

Washington State Magazine is pleased to acknowledge the generous support of alumni and friends of WSU, including a major gift from Phillip M. '40 and June Lighty.

SUBSCRIPTIONS: *Washington State Magazine* is distributed free of charge to graduates, donors, faculty, and staff of Washington State University. With a gift of \$25 or more, you can have *WSM* sent to someone who is not on our mailing list. For details, go to wsm.wsu.edu/subscribe or contact Barb Olson at 509-335-7628, bjolson@wsu.edu.

ADVERTISING: For information about advertising in *Washington State Magazine*, go to wsm.wsu.edu/advertising or contact Barb Olson, advertising manager, at 509-335-7628, bjolson@wsu.edu.

Changed your address?
Please visit wsm.wsu.edu/subscribe or send current address information to Sherri Peters, PO Box 641927, Pullman, WA 99164-1927, email coug4ever@gocougs.wsu.edu, or call 509-335-1686. Thank you!

Board of Regents, Washington State University ©2010

Washington State Magazine is printed at a facility and on paper that is FSC® (Forest Stewardship Council) certified, using soy-blended inks on at least 10 percent post-consumer-waste recycled, elemental-chlorine-free paper.



INSIDER'S GUIDE

to maximizing support

You're a Cougar through and through, so of course you support WSU. But have you really thought about how you give? How much do you know about regular, special, and ultimate gifts?

REGULAR

For 27 years, alumnus Bryan Mohler has made regular gifts—annual contributions—that support programs in the College of Business and WSU Athletics. He's also a member of the WSU Alumni Association.

SPECIAL

Bryan knew he wanted to name WSU in his Will, but he also wanted to invest in his legacy today. He made a special gift—a larger, one-time contribution—to establish *The Bryan L. Mohler Endowed Scholarship*, which just awarded its first scholarship.

ULTIMATE

By naming the WSU Foundation as beneficiary of his Will, Bryan has made an ultimate gift and has become a WSU Legacy Associate. Eventually, this gift will significantly increase his endowed scholarship and benefit students for generations to come.



Bryan Mohler ('79 Econ.; '83 MBA)

"I was afraid that estate planning would be depressing, but it's actually an opportunity to decide what impact you want to have on this world and learn how to make it happen. It was fun to think about the good one person can really do. The Foundation staff listened to what I wanted to accomplish and helped me devise the best strategy to make my goals a reality. The process is easy, future-oriented, and helped me get clear on my personal goals and interests in making an impact on our future through WSU."

To maximize the impact of your support, collaborate with a member of the WSU Foundation gift planning team to design the best giving strategy for you. Email gproffice@wsu.edu, or call 800-448-2978 to get started.

WASHINGTON STATE UNIVERSITY
FOUNDATION

letters

Walla Walla Sweets

I really enjoyed your article on Walla Walla Sweet Onions in the Fall 2010 *Washington State Magazine*. It brought back a lot of memories of working at the Walla Walla Produce Company, a wholesale fruit and produce company that my Dad ran, as I was growing up in the 1940s and 50s. I spent a lot of summers loading 50-pound bags of Walla Walla Sweet Onions delivered by the growers to our warehouse into rail cars that were being sent to the midwest and east coast. But your article stated that the onions were “not called Walla Walla Sweets until 1960.” As long as I can remember, they were always called Walla Walla Sweets and were being sold that way across the nation.

My dad even developed a recipe for an onion sandwich (1/2 inch slice of onion, lemon juice and sugar with a little mayonnaise on white bread) that we included in the railroad car shipments, that was outstandingly refreshing in the heat of summer.

When we started sorting and packing the Sweet Onions in the 1950s I worked in that operation and I ran the packing house when I was at WSU working on my masters degree in economics 1958-60. Back then there were three onion-packing houses in the valley that eventually closed down and the growers had

to do their own selling. I remember buying onions from the Arbini brothers and I remember that one of the state inspectors was Joe Locati. Producing great onions in Walla Walla has been going on for generations. Now they are producing great wines.

Thanks for your great stories.

*Robert E. Berney '54, '60
Grasonville, MD*

Tim Steury replies: The reference to the history of Walla Walla Sweet's name came from Joe Locati's The Horticultural Heritage of Walla Walla County 1818-1977. I'd appreciate hearing other accounts of when the name began its commercial use.

Cultivated landscapes

It may not be the centerfold, but the double-page photo of Wenatchee Heights is breathtaking. We have friends in East Wenatchee overlooking the river and I love the time when apricots and cherries are ripening. Then to turn the page and find coverage of all the agriculture going on in the Puget Sound was an extra plus. All those names are so familiar to people in the Puget Sound area. Every year we pick about 130 pounds of blueberries in the Puyallup area for the freezer, and this article gives hope when

we are seeing a lot of the farmland (for bulbs or fruit and veggies) disappear. Thank you!

Chellis S. Jensen '57

Older eyes

Finished reading the fall issue of *WSM* today.

You don't know how difficult it was to read about the onions through the onion tops. My poor old eyes had to adjust to about every word because the color of the background varied so much.

Reading through the clouds on page 45 wasn't as difficult; the background was more even.

Your magazine designers just don't realize how things come out on the printed page to *older eyes*. After all, what are you “selling”—articles and information or pretty pages?

If you had used a different, thicker, blacker font for the onions, it would have helped.

I thoroughly enjoyed this issue, read *all* the articles. Most interesting.

Mara Gustavs Trotter '66, '79

About a bridge

After reading the Fall 2010 edition, I very much applaud you doing an article on Mr. Hans Breivik '88, a graduate in Construction Management, which was my major.

He does the program proud with such responsible assignments.

I very much like your well-laid-out articles... You have great writers and editors who create a very interesting magazine.

I like how the magazine promotes environmentalism and great values. The magazine is very eco-friendly, which shows in its various articles. It's also very attractive to look at and colorful. And you have a great photographer. I salute your worthy efforts.

*Jim Bonnett '76
Towson, MD*

Posts from our website:

25,000 miles of trails

Thank you, Dan Nelson ['89], for what you are doing for our trails, hikers, their companions and our God-given outdoors. I'm now in my 70s, but when I taught at WSU, I was the faculty advisor for their Alpine Club. My aging black Lab, Calvin, thanks you too!

Douglas Rich

The pacemaker

Inspiring... As Annie [Thiessen '99], I use to compete every weekend for the exact same reasons: The Grr, Kill, Kill, and the social aspect of the race... Now, I have never won

A Smart Investment

When money is tight, you want a solid return on your investment. That's why the WSU Alumni Association has expanded its member benefits a full tenfold over the past few years. As a member, you can take advantage of the many discounts and benefits we offer. You will save money on the purchases you make and can more than cover the cost of your membership. Now that's a smart investment strategy in any market.

WSUAA members can log on to our new members-only benefits website at www.alumni.wsu.edu/membersonly and check out the substantial discounts you can enjoy with such companies as Costco, T-Mobile, Office Depot, Dell, national hotel chains, car-rental agencies, many alumni-preferred online retailers, and hundreds of local, regional, and national merchants.

Join today and start saving. Plus, membership dues are considered a gift to WSU and are tax deductible. Sign up by visiting www.alumni.wsu.edu/join or call 1-800-258-6978.

**Membership Matters.
Join Today.**

WASHINGTON STATE UNIVERSITY
ALUMNI ASSOCIATION

letters

a marathon, nor ever will, but still find running and racing as pivotal elements of my life... Thanks Annie for inspiring the running community!!! And ... Go COUGS!!

Lizzie

As both a WSU alum and a staff person at the Seattle Marathon Association, I just wanted to say thank you for writing this article about Annie Thiessen. It's inspiring to read about her journey. When she won in 2008, she was so very gracious and humble about her accomplishment, and it was very special to get to witness this. I wish her all the best in her running endeavors, and as always, go Cougs!!

Kiira

Meat of the matter

I remember buying Cougar sausages from Dissmores when I was in school. Last spring I put together an order for myself and some of the people in my office. I recently returned from a year-long deployment to Iraq and now I think I need to make a trip to Pullman to buy some more Cougar Gold and Cougar sausage.

Don

I was so excited to come across this article! My father, Vince N., was good friends with Dan and spoke highly of him and his skills. My husband and I were Cougs in the 70s and have lived in Ohio for 28 years. It has been a long time since I've had some good German sausage and it would be a real

treat to try some of Dan's smokies. I'm not sure if it would be as good as my dad's recipe, but I'm sure it would be good too! lol Do you ship across the country?

Audrey Bowlin

Following Rikki King's article on Cougar Smokies, many of you wrote to ask about their availability. Unfortunately, availability is limited—depending entirely on the available raw material. When that material is forthcoming, Cougar Smokies will miraculously appear at Ferdinand's, Dissmores, and Safeway in Pullman. Again unfortunately, the only way to find them is to show up at the right time at one of these right places.

—Editor

We welcome your letters as well as commentary left on our website—go to wsm.wsu.edu/contact. You can also post comments at the bottom of every article online.

Northwest Public Radio now reaches more Cougs in more places

NPR News & Classical Music
On-air | Online | *Wherever you are*

In communities across Washington
and parts of Idaho, Oregon, and British Columbia
— now in Tacoma/Seattle at **90.9 FM**
and Olympia/Centralia/Chehalis at **88.9 FM** —
and worldwide at nwpr.org



NWPR is a service of The Edward R. Murrow College of Communication at WSU

Growing Partnerships. Building a Stronger Washington State.



Office of the President

November 2010

Dear Alumni and Friends:

In 1931, Peter Kragt hitchhiked from Lynden, Washington, to Pullman to study physics at what was then Washington State College.

Money was scarce in the depths of the Great Depression. Peter purchased 1,000 square feet of lumber and built a small cabin on a borrowed piece of land. He lived as simply as possible, and said he spent only \$140 for an entire school year. That included the cost of textbooks, fees, recreation, and food.

Study our university's history during that time, and you find that Peter's story is not unique. Students often dropped out of and into WSC because of economic necessity. They earned money in offices or back on the farm, then returned to complete their degrees. Of course, many of those Cougars went on to help their country win World War II and build the thriving post-war economy.

Today, we are experiencing a period often described as the worst economic circumstance since the Great Depression. Just as it was in the 1930s, higher education is key to our recovery.

And although today's students might not think they have much in common with Peter Kragt, I meet many who display the same spirit of determination and resilience.

Some things have changed, however. The Pullman planning department strongly discourages the building of rustic cabins on vacant lots. And the economic barriers to gaining a college degree have risen sharply.

Tuition for a full-time in-state undergraduate student at WSU this year is \$8,592. Our Office of Financial Aid and Scholarships estimates the annual cost of attendance for that student—including tuition, fees, room, board, and books—is more than \$23,000.

WSU is spending more on financial aid. However, we are fighting an uphill battle. State funding continues to shrink. Students and their parents must pick up an ever-greater share of the cost of higher education, both here and nationwide. As a result, college completion rates are going in the wrong direction. In most industrialized nations, the percentage of people with college degrees is higher among 25- to 34-year-olds than among their parents. That's not the case in the U.S.

In fact, a recent report from the College Board stated: "America has an aging and highly educated workforce that is preparing to retire. As these adults retire, it is expected that the educational level of the younger generation of Americans will not approach that of their parents...."

I greatly appreciate the gifts of so many Cougars who help fund scholarships. You are keeping a WSU degree within reach of more students.

However, you can't do it alone. As the next legislative session approaches, I will be making the case that, especially in difficult economic times, we must keep our doors open to the next generation of Peter Kragts.

Warm regards,

Elson S. Floyd, Ph.D.
President

PULLMAN • SPOKANE • TRI-CITIES • VANCOUVER • EXTENSION

PO Box 641048, Pullman, WA 99164-1048
509-335-4200 • Fax: 509-335-5515

BROUGHT TO YOU BY THE WSU ALUMNI ASSOCIATION

Thank You

from the Class of 2021

Your financial support of Washington State University today paves the way to success for the next generation tomorrow.

And that success benefits all of us.

Whether you give to support scholarships, endowed professorships, or life-changing research, you're investing in the big ideas that ensure the vitality of our society and the strength of our economy.

Thank you for your generosity.

Your commitment means a world of difference.

foundation.wsu.edu



» panoramas

IMAGO MORTIS FROM LIBER CHRONICARUM, HARTMANN-SCHEDEL, NUREMBERG 1493



The deadly cough

by Eric Sorensen :: Few creatures in the course of human history have ever been as influential as the one that crawls and jumps and drinks blood in the lab of Viveka Vadyvaloo.

It hit the world stage in the sixth century, starting in Lower Egypt, traveling by ship to Constantinople, then into western Europe. It took about half a century to kill 100 million people, half the earth's population.

Seven centuries later, it fanned out from the Crimean seaport of Caffa to revisit Constantinople and Sicily, from which it swept through Italy, France, Spain, England, Germany, Austria, and Hungary. One-third of Europe, about 25 million people, was wiped out.

In the 1860s, it was China and India's turn. More than 12 million died.

This wholesale destruction came through what is generally referred to as The Plague, most often manifested as the bubonic plague named after the swollen buboes that form around infected lymph glands. The first out-

break was the Plague of Justinian, after the Roman emperor of the time. The second was the Black Death. The third is more prosaically called the Third Pandemic, and it was not until then that the bacteriologists Alexandre Yersin and Kitasato Shibasaburo figured out that it was caused by a bacterium now called *Yersinia pestis*.

But many crimes require an accomplice. *Yersinia's* is an unwitting insect that has spread the disease so effectively, it heralded the Dark Ages and forced the reorganization of trade networks and social strata. Historian William Rosen notes that the first plague allowed the rise of the major European nations we know today, in large part because the Roman Empire's demise "was hastened by the bite of a flea."

Xenopsylla cheopis, the Oriental rat flea, has been the disease's main carrier, or vector, by moving the bacteria from rodent to rodent, and even today, to the occasional human.

"It's the flea where the disease actually persists," says Vadyvaloo, 36, an assistant professor in the College of Veterinary Medicine and the first faculty hire in the new School for Global Animal Health. Working out of a modest lab in the Animal Disease Biotechnology Facility, she maintains a small colony of fleas, sustaining them on a diet of fresh blood. While she works with an ineffective, avirulent strain of the bacterium, she can study various aspects of its transmission by running it through her fleas.

Fleas pick up the *Yersinia* bacterium by feeding on infected rodents. In the past, these were often rats, which traveled by ship from port to port, helping the disease spread across the Mediterranean and through Europe. Now it's in other rodents—prairie dogs, blacktailed squirrels, groundhogs—which is how it is lingering in rural pockets across the western United States.

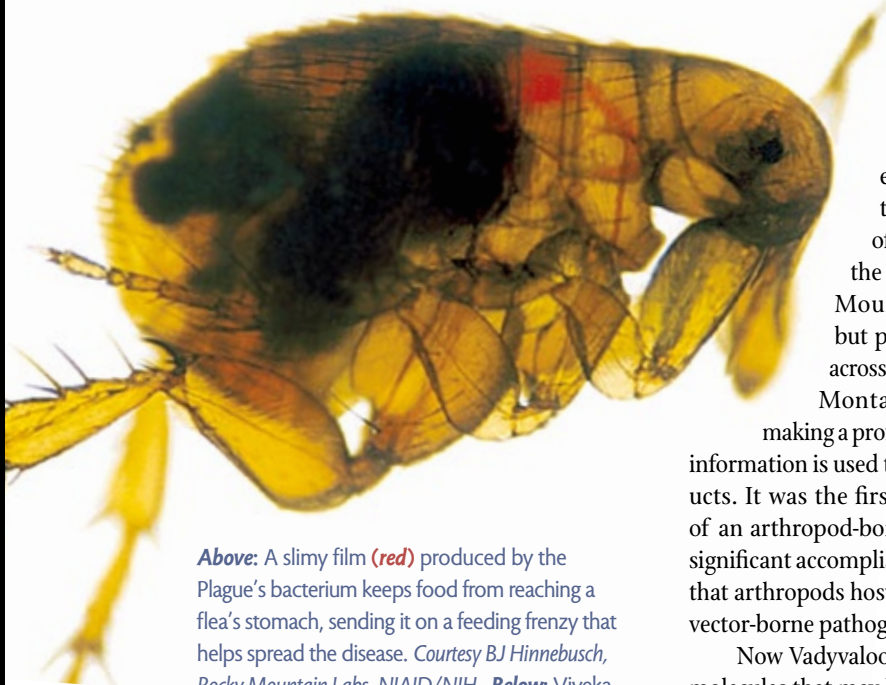
When an infected rat or ferret dies, its fleas go off in search of another warm meal. When that meal is the blood of a human, that can be

WINTER 2010/11

» panoramas

a problem. It's particularly a problem when the bacterium has given the flea indigestion.

Vadyvaloo's work, by sitting squarely at the human-animal interface, "fits our mission perfectly," says Guy Palmer, director of the School for Global Animal Health.



Above: A slimy film (red) produced by the Plague's bacterium keeps food from reaching a flea's stomach, sending it on a feeding frenzy that helps spread the disease. *Courtesy BJ Hinnebusch, Rocky Mountain Labs, NIAID/NIH.* **Below:** Viveka Vadyvaloo. *Photo Robert Hubner*

She's looking in particular at how, in many fleas, *Yersinia* forms a slimy biofilm that can block up the flea's proventriculus, an organ that helps move food from the throat to the stomach. Hungry, the flea starts a desperate and frustrated feeding frenzy.



But wait, it gets nastier. Because the proventriculus is blocked, the flea can't actually consume the blood it's sucking up. So it coughs. Back into its host. And remember those *Yersinia*

bacteria down in the proventriculus? Some of them go into the host as well.

"It takes only five bacteria to result in your death 48 hours later," says Vadyvaloo. "It's very quick, very lethal."

If someone can find a way to stop this behavior, *Yersinia* will have a lot fewer frustrated, biting, coughing fleas to do its bidding. So Vadyvaloo is looking very closely at how that biofilm is formed.

Before coming to WSU earlier this year, she studied the molecular mechanism of the biofilm's formation in the flea as a postdoc at Rocky Mountain Labs, an obscure but prestigious national facility across the Bitterroots in Hamilton, Montana. Her work included making a profile of how *Yersinia*'s genetic information is used to synthesize various products. It was the first gene expression profile of an arthropod-borne bacterial pathogen—a significant accomplishment when you consider that arthropods host 80 percent of the world's vector-borne pathogens.

Now Vadyvaloo is focusing on small RNA molecules that may have an outsized influence on how genes are expressed to make proteins. She is thinking these so-called small, non-coding RNAs are needed to form the biofilm. If she can identify them, they could lead to the actual genes required to make biofilm—and a possible technique to stop it in the future.

A Washington sabbatical for Afghan scholars

by Tim Steury :: We're an Afghan/WSU contingent marching up Western Avenue in Seattle. Four Afghan men, all good friends, are dressed in suits and carrying big bouquets of flowers. They are in a boisterous mood. Not only is it a glorious day, they have WSU-embossed certificates in their non-flower hands and they are going home the next day after a long and productive summer in Pullman.

Azim Emad, Hodayun Fazil, Rafi Khalil Nasar, and Sami Wardak, with ten others, have just completed the study abroad portion of their



From left: Azim Emad, Hodayun Fazil, Rafi Khalil Nasar, Sami Wardak. *Staff photo*

master's degrees in public administration and public policy from Kabul University, a program that Washington State University helped establish through a USAID contract. Now, following a couple of days in Olympia visiting various government offices, they have gathered in Seattle the day before their flight home for a ceremony at WSU West and a final dinner at the Edgewater.

The purpose of the USAID project was to make college education more accessible and attainable for the citizens of Afghanistan, says Colleen Taugher, who coordinated their stay. Developing such a degree in public policy and administration was a top priority for the Afghan government.

The Afghan scholars are all mid-career managers from various Afghanistan ministries who were slated for promotion. The culmination of their degrees was their theses, largely involving the development of policies and programs. The proposals were ambitious and sweeping, says Taugher. If half of them are developed, she says, it would be a remarkable feat for the country.

The scholars worked with graduate students over the summer to focus and revise their projects. John Branstetter, a doctoral student in political science who also accompanied them to Olympia, worked with four of the scholars. His main emphasis, he says, was to help them narrow their focus and produce a research methods section.

Of the four with the flowers, Azim Emad, a finance manager for USAID in Afghanistan, is developing a project on the empowerment of women entrepreneurs through microfinance. Hodayun Fazil, a general procurement manager for the Ministry of Public Health, is examining the pros and cons of private clinics in Kabul. Rafi Khalil Nasar, until recently a government

relations representative for a telecommunications company, is now a lawyer with his own private firm. He is assessing the role of customary law in Afghanistan. Sami Wardak is a deputy human relations director with the president's office and is evaluating the impact of foreign aid in Afghanistan.

Among the others, two were women, indicative both of the progress women have made within contemporary Afghan society and the remaining obstacles. Nabilah Musleh, a consultant with the Ministry of Agriculture, is exploring violence against women. Najia Tareq, with the Ministry of Public Health, is director of the women's hospital in Kabul. Her project assessed technical knowledge and skills in caesarian section procedures in outlying hospitals.

Besides working on their projects, the scholars took intensive classes in public policy and administration from faculty members from Political Science and the Division of Governmental Studies and Services on the Pullman campus, including Steve Stehr, Amy Mazur, Mike Gaffney, Nicholas Lovrich, and William Budd.

Political scientist Andrew Appleton coordinated three courses from his department and accompanied the scholars on their trip to Olympia. He found the experience of working with them "extraordinary."

"I think all of us came away having learned a lot more about the world and about Afghanistan," he says. "All of us came out of it with a deeper appreciation facing Afghanistan and Islam—realizing we don't know that much about it."

On the other hand, he continues, "We came out of it feeling that we might just influence real world outcomes just a little more than we normally do."

WSU involvement in Afghanistan reaches back a decade with agricultural projects involving seed relief, says Chris Pannkuk, director of International Research and Development. WSU contracted with the Danish Committee for Aid to Afghan Refugees on rural development programs and then, through USAID, helped develop the Afghan eQuality Alliances, which involved three universities in Kabul: Kabul University, Kabul Polytechnic, and the Medical University. A direct result of these programs is a service called the Angel Centers, which include learning centers and digital libraries.

Visit www.afghanequalityalliances.net for more on WSU and USAID programs in Afghanistan.

A sinking economy sparks scholarships

by Hannelore Sudermann :: Two years ago, Lou Pepper watched the bank he once managed become the largest bank failure in U.S. history.

Pepper, a former Washington State University regent, had retired from Washington Mutual in the early 1990s when the bank was sound. But then a pattern of rapid growth and risky lending led to the collapse.

The former CEO felt helpless as each day brought more negative news. "People had been building this bank for 115 years, damn good people," says Pepper, leaning forward in his chair in the small first-floor office of his home on Skagit Bay. And many of them were losing

their savings, their jobs, and their means to pay for their children to attend college.

But then his wife Mollie had an idea. "Mollie suggested that maybe we might do something positive," says Pepper. He talked to his WaMu colleagues and 18 days later they had a website offering scholarships to dependents of Washington Mutual employees affected by the bank's collapse. "Early on, we raised about \$180,000 in contributions, mostly from former Washington Mutual employees and directors," says Pepper.

Soon more money came in from the defunct bank's political action committee fund and later from the bank's foundation—bringing the resource to nearly \$750,000. The fund pays annual scholarships of \$5,000 to dependents of displaced Washington Mutual employees as well as support for the employees themselves who may seek training in another field. Of the 14 students receiving the scholarship this year, four attend WSU.



LOU & MOLLIE PEPPER BY MATT HAGEN

The Washington Mutual Alumni Scholarship comes at the front of a new wave of need, says Chio Flores, WSU's director of Financial Aid and Scholarships. The changing economy has caused many families to change the way they're approaching paying for college.

"Last year and this year there are more applications and more appeals," she says. "We have students and parents reaching out because

Discovery

WSU in the movies. :: Lightning strikes again. :: The secret of Cougar Gold. :: The downside of the demand for teacher quality.



wsm.wsu.edu/discovery

» panoramas

they've lost positions, lost income. We see a much needier student."

At WSU there has been a 20 percent increase in Pell Grant qualifications, which is a measure of economic need, says Flores. "Parents who have never applied before are now applying," she says. "They are like first generation [students'] parents in the sense that they have never gone through this process before."

Last September a survey of 500 college and university financial aid offices showed a pronounced increase in need-based aid applications. The survey, performed last year by the National Association of Student Financial Aid

There are some resources to help in this time of greater need, says Flores. WSU students have access to state, university, and private scholarships. Among the private offerings are those maintained by outside entities—like the Washington Mutual Alumni Fund—and those made by private donors and offered through WSU. According to the most recent numbers, WSU has awarded \$12 million in scholarships to 5,000 students in the past year.

Some scholarships are offered through a specific school, major, or department. Others are more general and are based on merit with a need component, says Flores.

One scholarship donor wanted to just support students who graduated from Omak High School, but in the end agreed to open the candidate pool to the entire county. Another, set up by an alumnus, goes to members of the Gender Identity/Expression and Sexual Orientation Resource Center. And one scholarship is directed to athletes who pledge in the Greek system.

There are some older scholarships, too. "In our endowed scholarships sometimes you find old language, like words that speak to good character," says Flores. And how do you determine that? "We just assume everyone here has a good and moral character. That goes with being a Cougar."

WSU's first scholarships go back to the first days of the school. Until the 1920s, tuition was free to any student from the state of Washington, but there was financial support for room and board. According to the 1895 course catalog, the Board of Regents provided a scholarship for one student from each county for free rent, including heat and light, and exemption from all college fees. At the time, a year's housing amounted to \$20 and a total estimate of expenses was around \$120.

Today, the financial aid office estimates, tuition and fees as well as books, housing, transportation, and miscellany, could amount to \$23,630 a year.

Without the Washington Mutual Alumni scholarship, Teresa Randecker '75 wouldn't be able to send her sons Richard and Marc to school. "My one goal for them when they were young was to give them a good education," she says. As an employee she invested in Washington Mutual stock, and even had a portion of her 401K in the bank. "Washington Mutual was a fantastic company," she says. "I really didn't think it could go under."

But then it did. "I had one son in college and the other starting in a year," she says. "The bank collapsed and I was devastated. Of course I lost all my stock that I bought in the employee investment plan."

At the same time, her husband was out of work and she saw her 10 years with the company come to an end. Then she read about the WaMu Alumni Scholarship in the newspaper. "We really pursued it," she says.

Richard, her older son, is now majoring in mechanical engineering. And Marc is studying computer science. "If it wasn't for the kindness of the alumni group, my kids wouldn't be in school," she says. "Hopefully, when they graduate, they will find good jobs, be able to support themselves and their families, and someday maybe give back to their communities."

short subject



A NEW LAND

by Eric Sorensen :: photos by Bill Wagner

JOHN BISHOP was late getting to Mount St. Helens.

He was only 16 years old when it blew in 1980, and it would be another decade before he began crawling around the mountain as part of his doctoral studies.

"I was worried I missed all the action—"Ten years, it's all been studied," he recalls.

It turns out the dust, pumice, and other ejecta were only beginning to settle, and the mountain would continue to rumble, spit, and recover. In 1994, he found himself running from a mudflow, then watched as it moved fridge-sized boulders and shook the earth beneath his feet. Arriving at WSU Vancouver in 1998, he could make work on the mountain a weekly commute, a rare convenience for those eager to study the earth's volcanic hotspots. In 2006, after a period of activity in which the mountain was closed to the public, he was one of the first to climb to the summit and watch whalebacks of solidified magma ooze out and break off 2,000 feet below.

More important, Bishop, now an associate professor in WSU Vancouver's School of Biological Sciences, bore witness as various life forms struggled to get a toehold among the rocks left virtually sterile by the blast 30 years ago. He's seeing a biological Wild West where certain characters arrive on the scene and wreak havoc in the absence of established community forces or the usual ecological rules. The process is so tumultuous that Bishop and his colleagues are starting to rethink the process of succession in a heavily impacted biological system.

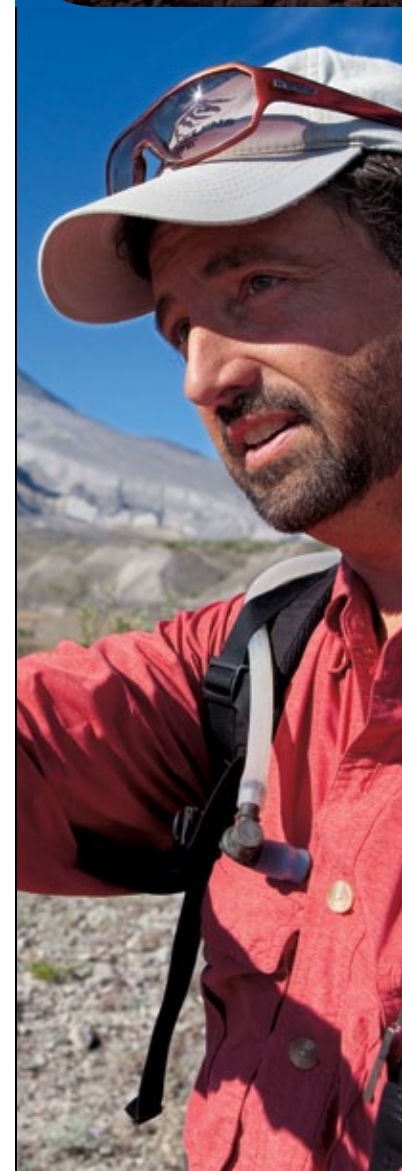
"It gets to how science occurs," he says one crystal-blue summer day, with grasshoppers sounding like golf course sprinklers and the sun beating down on the white-gray rock of the Pumice Plain. "You work here for a decade or two and then you step back and say, 'Wait, this is actually telling me something about the entire process of going from nothing, no biological organisms, to a forest that stood here before and will someday stand here again.' We're getting at really fundamental processes that determine how that happens."

Biologists divide the blast zone around the mountain into various zones of disturbance. The outer edges were layered in ash and pumice. Areas closer in had singed but standing dead trees. Even closer to the volcano, forests were flattened.

"One-hundred-foot matchsticks," says Bishop.

The Pumice Plain was Ground Zero for the blast's debris avalanche and 800-degree pyroclastic flow. That life has returned at all is somewhat miraculous, but it's also had a tough go of it.

Above: A new day dawns on Mount St. Helens. *Left:* Biologist John Bishop is seeing new patterns in how life returns to the mountain.



View pictures of lupines and herbivores thriving on Mount St. Helens at the WSU Vancouver research site: research.vancouver.wsu.edu (direct URL: goo.gl/t8px).



Brothers Marc and Richard Randecker are both at WSU thanks to the WAMU Alumni scholarship. Photo Shelly Hanks

Administrators, found that more than 60 percent of the schools reported a large increase in financial aid applications as well as aid appeals. The schools generally suggested the reasons for the increase as the economic downturn, the Obama administration's encouragement to unemployed workers to apply for and appeal aid awards, and rising enrollments.

A few scholarships, though, are more restrictive and specific. Flores points to one that's only for students earning between a 2.5 and 2.75 GPA. That student is out there, and he or she is probably working a job while going to school, she notes. "But you really should be pushing for a three-point or higher," she advises. "It just opens the doors to more scholarships."

Our Story

Memories of Rush, 1963. :: Growing up on College Hill in the 1930s and '40s.



A NEW LAND



The central player on the plain has been the lupine, a robust purple flower that in effect brings its own lunch by synthesizing nitrogen in the barren volcanic soil. Along with a few grasses, it's the most obvious vegetation as we start walking on to the plain after a hair-raising drive from Windy Ridge on the mountain's eastern flank.

"It's a very two-dimensional plant community," says Bishop, which is to say the plants are so low they offer little shade or protection for other plants and animals. "But you also see at the same time we have willows colonizing here. It's easy to overlook them, but actually there are a lot of them. They're everywhere, but at low density, and they're quite small. And you have conifers colonizing. You have the beginnings of your next coniferous forest."

In the two-dimensional world, the main animals are deer mice, killdeer, and horned lark. But the 3D world has voles, shrews, porcupine and weasels, yellow warbler and orange-crowned warbler, willow flycatchers, and sparrows. Elk come through pretty regularly.

"The willow," says Bishop, "changes everything."

Still, it's a largely unsettled place. It lacks the diversity that can give an ecosystem both resilience—the ability to spring back from a disturbance—and stability—the ability to resist change in the face of a disturbance. As a result, the community is easily devastated by two insects—the willow stem-boring weevil and the poplar clear-winged moth.

Bishop points to a small willow with dead branches and a tell-tale dusting of what looks like sawdust. It's frass—larvae dung—and evidence of the willow getting hammered. In an established ecosystem, the larvae might have predators to keep them in check. Not here. As Bishop and his students walk transects across the plain and document birds, mammals, and vegetation along the way, they've noticed that 85 percent of the willow stems over a certain size are being attacked.

"This plant is not that young," says Bishop pointing to a battered willow. "It's been here a while but its stems keep getting killed. It could easily be ten years old."



Above: Parts of Mount St. Helens were made virtually sterile by the 1980 eruption. **Below:** Stem-boring larvae are slowing the growth of willows whose tall, "3-D" structure would attract a broader suite of plants and animals.

N 46° 11' 28"

W 122° 11' 40"

Further down are willows that researchers sprayed to keep insects off. They sport tags—blue for male willows and pink for females—but they're instantly recognizable without them.

"They're the big ones," says Bishop. Without the outsized impact of the insects, these willows flourished.

In the past, ecologists haven't given much thought to the roles of insects in succession. Now Bishop is wondering if succession itself might be rethought to give greater weight to such high-impact species.

"What it's made us realize more generally is that, as the species here sort out into a more stable community, you probably have a very unusual distribution of interactions among those species, where you have a lot of fairly extreme impacts of one species on another, more extreme than we see in more developed systems."

He's noticed something else as well. There are a lot of lupine and a lot of insects, in fact, millions of lupine and tens of thousands of herbivores that only eat lupine. Some are being described by scientists for the first time. Elsewhere on the mountain and surrounding Mount St. Helens National Monument are species like the western toad, which has its largest populations here. There's the tailed frog, and large, diverse communities of huckleberry, mountain ash, salmonberry, often with animal-dispersed fruits. Bishop is seeing birds and mixed communities here that one doesn't see elsewhere.

"I think that leads to a need to rethink the value of a place like this," Bishop says, "that it may actually be extremely important for the long-term health of those species, that they can find a disturbed place and become very common."

His thoughts on this are still forming, but they echo recent observations by WSU ecologist Mark Swanson and others in the journal *Frontiers in Ecology and the Environment*. It's the kind of thinking that might alter how we, say, go into a burned forest and start replanting it, or how we take a clearcut and try to rush it back to an old-growth condition.

Indeed, if you want to make a case for natural disturbance, you might do well to start with this: Bishop, Swanson, and the platoon of researchers working here over the past few decades are coming to think that battered, burned, and blown-down Mount St. Helens now has the greatest biological diversity in the Cascades' vast, forested terrain. ☒



Above: Insects are having an outsized effect on the return of other life forms to the volcanically seared Pumice Plain. **Below:** Varying degrees of destruction like this blast-flattened forest let biologists see how life responds to different types of disturbance.





Living for a cure

by Jason Krump :: At his home on the banks of the Columbia River just north of Wenatchee is one of Mike Utley's achievements.

A Ford F-350 pickup.

Black with blue flames jutting from front to back, the truck gives off as imposing a presence as the 6-foot-6 Utley must have given opponents during his playing days as an offensive lineman with Washington State University and the Detroit Lions.

"Success comes not in time but in goals achieved," he says. "I earned this truck."

On November 17, 1991, Mike Utley was carried off a football field on a stretcher and taken by ambulance to a hospital.

In the ensuing 19 years, Utley has progressed from not having the ability to transfer himself, feed himself, or go to the bathroom by himself, to being able to drive this custom-built truck that he "can jump into."

"This is the whole story in one nutshell," he says. It is a story of fulfilling a promise made to

himself in his NFL rookie season.

In the fifth game of the 1989 season, Utley broke his leg so badly that, despite several attempts to walk off the field under his own power, he had to be carried off.

"When a man walks across the white line to the field of battle, he walks off," he says. "Right then and there, I promised myself this will never happen again, not to Mike Utley. I got carried off and I made a promise this will never happen again."

Utley kept his promise until that November day.

The Lions were playing the Los Angeles Rams at the Pontiac Silverdome. On the first play of the fourth quarter, Lions' quarterback Erik Kramer threw a pass over the outstretched arms of the Rams' David Rocker.

Utley moved forward to block Rocker at his mid-thighs to take his legs out.

"He has to defend himself," Utley recalls. "His hands have to come down...."

For more information on the Mike Utley Foundation visit www.mikeutley.org.

"He caught me, and he pulled me down. I hit my head on the turf and broke my neck at C-5, -6, -7, and became instantly paralyzed."

As he was attended to on the field, Utley's thoughts came back to his promise.

"The hardest thing was I broke a promise to myself of not crossing that white line again. I got carried off a second time."

While he was carried off, Utley used the little movement he had available in his right hand to give a thumbs up.

"I wanted the people to know that Mike Utley will be back."

Coming back and walking off Ford Field, the Lions' home stadium since 2002, has been one of Utley's focuses since the injury.

The other is to help those who have suffered spinal cord injuries like him. That is why, in 1992, Utley started the Mike Utley Foundation.

"Probably Mike's biggest message with the Foundation is it doesn't matter if you have an injury or not, nothing's changed unless you allow it to," says Dani Utley, Mike's wife. "You still need to eat the same, you still need to exercise. It doesn't matter if you're injured or not."

"A cure is going to come, and God willing, the Mike Utley Foundation is going to be involved with it by what we are doing: raising money for research, education, and rehabilitation," says Mike Utley.

Utley's rehabilitation program involves weight lifting, conditioning, physical therapy, nutrition, and a process called biofeedback.

"Through biofeedback you find healthy cells through your spinal cord," Mike explains, "like riding a bike. You teach your brain how to ride a bike."

Since 1993, Utley has made annual visits to the Brucker Biofeedback Center in Miami as part of his rehabilitation. Since 1999, Utley has worked with Diana Diaz, a clinical manager at the center.

"Biofeedback is a technique where we are trying to find different cells in the brain where they are alive but not awake," Diaz says. "We're trying to wake them up and show them another pathway to make a motor connection between the brain and the muscles."

The process involves placing electrodes over muscles with limited or no function. The electrodes are connected to a computer that is reading the brain signal transmission to the

muscle. This appears in front of the patient on a screen.

"The patient will be able to see how much brain signal is transmitted to that muscle," says Diaz. "The therapist has to find the best position for that muscle to make connection to the brain. If we keep the patient in one position and we see nothing is going on the screen then we want to be moving the patient in order to make the connection."

Utley is tested neurologically each year to gauge how much progress he is making.

"Mike gets more function back every single year," says Dani. "That's one of the main reasons why we get him tested neurologically down in Miami, to see how much more he has regained."

The progress is reflected in a manual-muscle test used to check the strength and range of motion in different parts of the body. Zero reflects no movement and five reflects a full range of motion.

For instance, with his hands, Diaz says that Utley measured at a two-plus/three-minus when he first arrived at the center in 1993. Today he scores a five.

Diaz, who describes Utley as "very determined," has seen that determination translate into progress.

"We were trying to gain function and strength in the upper extremities around his shoulders, biceps, triceps, and hands," Diaz recalls of Utley's condition in 1999.

Now, Diaz says, Utley has "completely functional muscles" in the upper extremities. And the progress is not limited to his upper body.

"I remember that 11 years ago he didn't have good trunk control," said Diaz, who emphasizes that biofeedback is one component of the rehabilitation process. "We used a special table to transfer from his bed to wheelchair. These days he doesn't use that anymore. He is very independent, which is telling me he has much more trunk control and stability."

"When I saw him 11 years ago, we used to stand him up with the use of braces," Diaz adds. "These days he doesn't use braces anymore. He's able to stand up and bear weight on his legs only with someone bracing his knees, which is a huge accomplishment."

For Utley's future, Diaz says that he needs to gain more strength and brain signal connection to his lower back.

"If we get those muscles stronger, we want to be able to provide him better control of his waist area. With that he will be able to spread down more information to the quadriceps and hamstrings and be able to control those muscles."

The ultimate goal, says Diaz, is to walk without the aid of support to his knees.

"You have to work. If it was easy, everybody would be here. It's not easy; it's hard," Utley says. "There are two kinds of people with a spinal cord injury: those who wait for a cure and those who live for a cure. Mike Utley lives for a cure."

And for the day when he can fulfill the promise he made.

"My goal is to walk off Ford Field," Utley says. "To get off that 25-yard line and walk off that white line. I have to close this chapter in Mike Utley's book and that is walking off Ford Field."

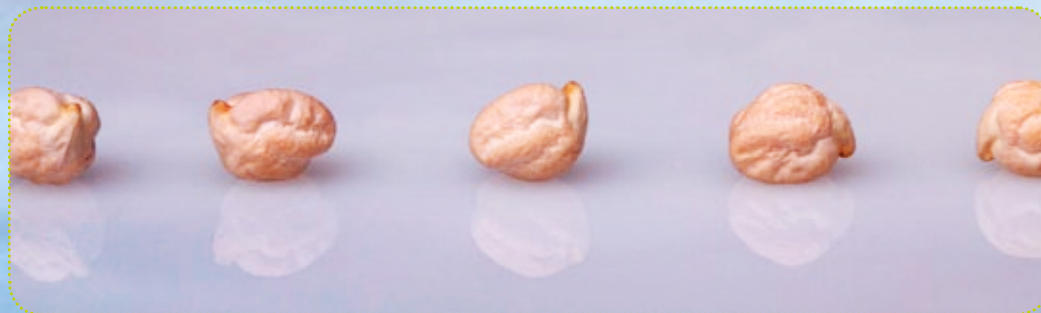
"Am I there yet to walk off Ford Field? No sir. But am I closer today than where I was 19 years ago? Yes, sir, I am."

"One day, somehow, some way." <<

They are waving their flags..... are you?

Call the WSU Athletic Foundation at **1-877-IMACOUG** for more information and show your support with a donation to Cougar Athletics today!

» in season



CHICKPEAS

:: by Tim Steury ::

ALTHOUGH MIDDLE EASTERN COOKS who found themselves in the United States undoubtedly found sources of such a vital ingredient, it wasn't until the last couple of decades that the chickpea made its way into the American diet and moved up from the bottom shelf at the supermarket. It can be said with some confidence that chickpeas did not find their way into church carry-ins (potlucks to you non-Midwesterners) until very recently.

The chickpea's introduction to American cuisine probably started with the salad bar, suggests Phil Hinrichs '80, president of Hinrichs Trading Company, which processes and distributes chickpeas primarily to a domestic market. Remember those odd light golden wrinkled round beans squeezed between the pepperoncini and chopped black olives? Odd as they were, though, a big dollop of blue cheese dressing could make the exotic bean acceptable to even the most staid middle-American palate.

New as it may be here, the chickpea is a long-established culinary icon in many cultures.

In the "Capitulare de Villis," a document issued circa 812, Charlemagne dedicated the last chapter to a list of plants he wanted in his garden. One of them was the chickpea.

In the *Iliad*, Homer compares the arrows of Helenus bouncing off the breastplate of his Greek opponent Menelaus to the bouncing of beans and *erebinthos*, chickpeas, on the winnowing's basket.

Although eaten mostly by the poor, the chickpea was a staple in ancient Egypt, Greece, and Rome. Priests and scholars cautioned they might inhibit higher spiritual principles and clear thinking. Though not stated outright, the reason might well be either the accompanying flatulence or the legume's alleged aphrodisiacal properties. The second meaning of *erebinthos* is "testis."

On the other hand, more enlightened commentators recommended the chickpea as a healthy food, and Pliny described the chickpea as a *venerium* in honor of goddesses.

In short, the chickpea has long been a staple in Middle Eastern and Mediterranean cuisines. Archaeologists have found chickpeas in Turkey dating back to around 5450 BC. They made their way to the New World via Columbus and quickly established themselves in Central and South American diets.

But here on the Palouse, they didn't really catch on until the early 1980s.

Although WSC agronomy professor Dawson Moodie published a paper on the feasibility of chickpeas on the Palouse in the 1940s, researchers found weed control to be the main obstacle to growing chickpeas in eastern Washington. They are slow to germinate and emerge and do not compete well with weeds.

The breakthrough, says Fred Muehlbauer, was the development of appropriate pre-emergent herbicides in the early 1980s. Muehlbauer, who retired just a few years ago, was the U.S. Department

of Agriculture legume breeder at WSU for years. His predecessor had some experimental seed plots of chickpeas from Mexico, and he finally convinced Dwelley Jones of Walla Walla to try a small planting. Muehlbauer hauled a 75-pound bag of seed to his farm, and Jones gave it a shot, even though planting the large seeds with equipment geared to smaller seed was a challenge.

Muehlbauer gave the other bag to Sanford Evans of Genesee, Idaho, who like Jones, got a good crop. They were hooked. And got the first two registered varieties, Dwelley and Sanford, named after them.

About the same time, Phil Hinrichs's father, Bob Hinrichs '54, decided to diversify his pea and lentil seed business. He hauled two truckloads of chickpea seed up from Mexico and established a small grower base.

Convincing growers to try this new crop took some fast talking. Chickpeas require 30 more days to mature than lentils, which takes harvest into early September.

And then there's the blight, *Ascochyta*, which was not part of the sales talk because no one knew about it.

The blight spread quickly, says Muehlbauer. Growers tried skipping a year of planting, hoping the blight spores would die. But no such luck. It came right back.

Besides work by agronomists and pathologists to develop techniques to control the blight, Muehlbauer focused on breeding resistance. The blight persists, but WSU researchers and growers, as well as fungicides, have prevailed. Production continues to grow by 15 percent a year, says Hinrichs.

Even though the chickpea originates from a more subtropical climate, it seems to be well-suited to the warmer, drier reaches of the Palouse.

That simple fact seems to give great satisfaction to George Vandemark, the current USDA legume breeder at WSU. He praises Muehlbauer for handing him lines of chickpeas with pretty solid *Ascochyta* resistance bred into them, so he can concentrate on yield and seed quality.

And on the role of chickpeas, and other legumes, in the world food supply.

Cool season legumes contribute about 8 percent of vegetable protein in the world's diet, but on far less than 8 percent of the arable land. And chickpeas, as with other legumes, add nitrogen to the soil, a huge plus as petroleum-based fertilizer climbs dramatically in cost.

But chickpeas also taste great, even as the main source of protein in a meal to a diehard carnivore such as myself.

As I write, I'm munching on sautéed chickpeas, which are delicious. Muehlbauer recalls a method of dry roasting he observed in Turkey. A large quantity of sand is heated on a griddle. Once it is very hot, the cook will throw boiled chickpeas in the sand. They're stirred until roasted by the hot sand, then dumped into a sieve, which sifts out the sand. This is one method of fixing *leblebi*, a popular snack.

"The reason chickpeas are so good," he continues, "is their high oil content." Three percent. It gives them a smooth and creamy texture and taste.

For his part, Hinrichs is jazzed on hummus. He waxes wistfully on appetizers at a recent party—hummus spread on a cracker, anchoring thin slivers of Cougar Gold and jalapeño.

Eighty percent of our pea production is exported, as is the case with 70-80 percent of lentils, says Vandemark. But only 40 percent of our chickpeas leave the country. "That's because of domestic demand, primarily for hummus."

And Hinrichs Trading Company is feeding a market that continues to grow impressively.

According to the *New York Times*, over the last 15 years hummus has grown from a \$5 million business to dominating its sales category, "refrigerated flavored spreads," which account for \$325 million in annual retail sales. ☒



See new lines of chickpea cultivars being developed at WSU, as well as photos of the Hinrichs Trading Company and tasty chickpea recipes at wsm.wsu.edu.

Nature twice: Poetry and natural history

by **Debbie Lee** :: I lean on a glass case that displays stuffed egrets, herons, and sparrows. Across the room, Larry Hufford—director of the Conner Museum of Natural History and professor in the School of Biological Sciences—taps data into his computer. Larry is tall with thick graying hair and sharp blue eyes. I'm a full foot shorter, and this, coupled with the fact

has encouraged me to bring to his world not just the materials of my discipline—poetry, novels, and cultural theory—but the methods and ideas, too. For both of us, no question or comment is off limits. So when I peer into the museum case and say, “Wow, that’s one *giant* seagull!” he doesn’t flinch. “It’s a *Diomedea nigripes*, an albatross.”

For that tidbit of science, I trade poetry, launching into a line from Samuel Taylor Coleridge’s “Rime of the Ancient Mariner,” a poem I teach about a seaman who kills an albatross in the Antarctic Ocean. Larry’s eyes sparkle, which means collaborative ideas are brewing. I’ve seen this gleam before when the two of us taught a graduate course on the history of scientific travel. We took students backpacking to teach them about the poetry and plant life of the Inland Northwest.

Sadly, our collaboration is a rare one, even today, more than 50 years after physicist and novelist C.P. Snow gave his now famous Rede Lecture at Cambridge University, denouncing the gaping chasm between scientists and literary intellectuals in the twentieth century, which he called the “two cultures” problem. Snow implied that many scientists couldn’t make it through a Shakespeare play while humanists didn’t know the theory of relativity. This separation was more tragic in light of the fact that science and literature have similar intellectual roots and, at one time, shared not just methods but modes of expression. Some sixty years before Charles Darwin published his paradigm-changing *Origin of the Species* (1859), his grandfather Erasmus had already pointed out that organisms changed throughout successive generations. But he did it all in rhyming poetic verse in a massive book called *The Loves of Plants*. Over the next few months, Larry and I and a group of graduate students and colleagues from both disciplines collect animal poetry and match it to the specimens in the Conner Museum. The matched poems and specimens become the exhibit *Nature Twice*. It’s one of those magical moments when the combined efforts of science and literature illuminate the diversity and complexity of our world.

that I’m a professor in the English Department, makes for an unusual collaboration.

I used to feel alien in Larry’s scientific domain, even though my office is just a five-minute walk across campus. But over the last six years, Larry and I have become comfortable in one another’s professional spaces. He attends the poetry readings our department sponsors and I go to the natural history exhibits he puts on. He

The Conner Museum of Natural History this fall presented Nature Twice, an exhibit that brought together poems that use themes and imagery of animals with animal specimens on display in the museum. The exhibit encouraged visitors to consider how our impressions of the natural world are shaped by both science and the arts. The exhibit was curated by faculty and students in the Department of English and the School of Biological Sciences. A guidebook to Nature Twice can be downloaded from the Museum’s website.



See samples of the poetry and specimen displays at wsm.wsu.edu.

An arboretum for WSU

by **Rikki King '10** :: Over the coming years, 170 acres east of Airport Road in Pullman will be transformed into an arboretum, which will include a new bear center, a biodiversity center, a gathering circle, and a series of walking trails and gardens.

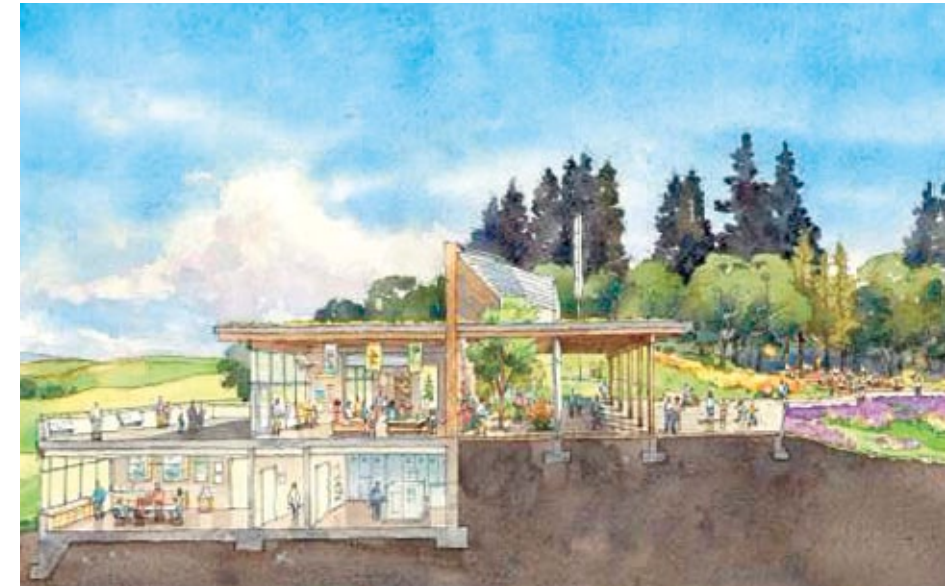
The land fits neatly amidst the WSU Organic Farm, USDA research plots, and College of Veterinary Medicine facilities. While the project is still in its infancy, many pieces are falling into place to make it happen.

By mid-July, the first trails were visible, tiny paths of hot pink flags climbing up and around the hills. A grand opening is loosely planned for fall 2011, but that depends on construction, says Rod Sayler, an associate professor in the Department of Natural Resource Sciences.

Sayler has been taking care of the land since August 2009. But plans for an arboretum at WSU date back to the 1980s, he says. “It comes from the innate desire of people to have an arboretum, a natural space, trees and wildlife,” he says.

The project started to take shape a year ago when President Elson S. Floyd designated the land for the project. One of the first candidates for a home there is the WSU bear program, which now sits at the busy corner of Grimes Way and Airport Road.

While many areas of campus have an interest in the project, the College of Agricultural, Human, and Natural Resource Sciences is the academic home for the arboretum. Dean Dan Bernardo is looking for ways to mitigate costs on the project by relying on student volunteers and relationships with alumni in fields like nursery operations and landscape architecture. “We’re



A proposed WSU Arboretum and Wildlife Conservation Center. Courtesy The Portico Group/Miller Hull

using every avenue we can to get free goods and services,” he says.

Erim Gomez, a master’s student in ecology, is learning the “art of weed management” during his hours at the site. The essence of his work, aside from the mowing and weed-whacking, is making sure the ecosystems on the land are working in the right way.

Gomez got involved with the arboretum through Sayler’s restoration ecology class. Every day, he is learning to identify which plants are invasive and need to go and which are native and need to be nurtured. With pride, he points to the scraggly infant ponderosa pines he helped plant last fall.

At times, the project seems like a series of competing but complementary visions. Robbins cares about animal diets and life in different ecosystems. Landscape architecture professor Philip Waite wants to satisfy a basic human longing for aesthetic outdoor spaces. And everyone wants interconnectedness, a place where different disciplines can flourish.

WSU’s tribal liaison Barbara Aston ’91 helps all the visions come together in a way that respects and honors the original people of the land. She is in charge of incorporating the Native American perspective. For example, she led the change in nomenclature from the “story circle” to a “gathering circle,” a more inclusive name that better fits native culture and customs.

Aston brings a “quiet voice of social consciousness” to the project, says Bobbie Ryder ’87, the senior campus planner and licensed landscape architect leading the master plan. Ryder sees the project as bridging art and science, a nexus of plants, animals, and people.

The project will fill a need for more outdoor space at WSU, says Bernardo. Along with a tourist attraction, the arboretum will be a living laboratory for WSU students and researchers, he adds, especially in disciplines like wildlife ecology and plant sciences. Aston hopes local tribes will be able to use it for traditional dinners and youth education programs.

The arboretum is a big vision. For now, Capital Planning and Development is cutting in the first series of trails and building the gathering circle, reusing materials excavated from the playfields renovations.

Much else hinges on funding. Until then, the ideas and inspirations percolate. <<



Watch a video and peruse plans of the proposed arboretum at wsm.wsu.edu.

Drew is an advertising/fine arts senior from Lake Tapps who is an advocate of the **Freshman Focus living-learning community*** and the **Common Reading program*** at Washington State University. As a **New Student Programs*** orientation counselor and assistant hall director this semester, he appreciates the programs even more.

“I’ve seen firsthand how new students who live and learn together adjust to college, study together, and take second-semester classes together.”

Drew

Learn more at
UniversityCollege.wsu.edu



*All part of the new University College at WSU, which supports the academic success of 16,000 undergraduates every day.

Coordinates

A new *In Season* map of Washington. :: Scott McMurtrey ’06 runs across Idaho—with his eye on Chile. :: Poultry farms of northwest Washington.

wsm.wsu.edu/coordinates



Civility in Politics and Campaigns

by Larry Clark ::

State Rep. Sam Hunt '67 (left) a Democrat from Olympia, talks with Republican Secretary of State Sam Reed '63, '68 (right).

ROBERT HUBNER



In 1994, Speaker of the House Tom Foley, U.S. representative from Spokane, was against the ropes.

In a tough campaign for Democrats, talk radio and anger over unpopular policies fueled malicious attacks on the Speaker. Foley, who had served eastern Washington for 30 years, fell to the Republican revolution that fall. He graciously conceded to George Nethercutt Jr. '67, but on his way out of office, Foley, long praised as a voice of bipartisanship and civility, bemoaned the rise of incivility and invective.

"I think it's very important to move the country forward and if you're engaging in constant political bickering and political ambush back and forth, then it just becomes an election campaign that goes on forever," Foley told his hometown newspaper *The Spokesman-Review*.

Ten years later, Washington's Secretary of State Sam Reed (BA '63, MA '68) experienced some of the same invective during multiple recounts of the contentious 2004 gubernatorial race between Chris Gregoire and Dino Rossi.

As the majority swung back and forth between Rossi and Gregoire and then on to multiple court cases, Reed became the target of two recall attempts and vicious attacks on his character and motivation—even from members of his own Republican party, who called him a "traitor"—as he ruled one way or the other on issues surrounding the election.

Recalling it now in his corner office of the capitol building, overlooking the state's Temple of Justice, Reed talks about the experience of overseeing the closest governor's race in U.S. history. (The race is recounted in *An Election for the Ages*, WSU Press 2010. Review in *"New Media."*)

"The accusations they hurled, it was unbelievable how uncivil the discourse was," says Reed. *"It was on talk radio, it was on the blogs. It's the kind of thing that was difficult to respond to because of the vile rhetoric."*

Reed sips water from a WSU alumni cup between meetings with legislators and describes the ultimate reaction after the election was settled. *"A number of people would regularly stop me and thank me for not sinking into being narrowly partisan or trying to abuse my power to put my fingers on the scales one way or the other."*

After growing up in Wenatchee and Spokane, Reed began his four decades of public service as assistant secretary of state for Washington Secretaries of State Lud Kramer and Bruce Chapman, and then five terms as Thurston County auditor before being elected himself as secretary of state in 2000.

Speaking about the 1960s and '70s, Reed says political leaders got along even when they were debating tough issues. "They would get out there on the floor and have some real rough and tumble debates. It'd be over, they'd go have a drink and talk about the wife and kids."

Civility—what we consider respectful discussions among elected officials, the public, and others—certainly seems to be on the decline. Fights break out at health care forums, a Congressman yells "You lie!" at the president in the middle of a speech, harsh campaign ads accuse candidates of treason, rants on TV or blogs... all seem to point to a breakdown in civil debate.

What's going on in our political conversation? Does this nastiness affect how people view their government and turn them away from getting involved, even when policies can have a profound effect on their lives? What about lawmakers?

That's what WSU political science professor Nicholas Lovrich and psychology information systems coordinator Francis Benjamin '06 wanted to find out with a comprehensive survey of civility, and perceptions of civility, in Washington's Legislature.

THE STATE OF THE STATE LEGISLATURE'S CIVILITY
Under the auspices of WSU's Foley Institute, which is named for the former speaker of the House, Lovrich and Benjamin last year surveyed interns, current and former legislators, registered voters, lobbyists, and legislative staff on the level of civility and bipartisan collaboration, with plans to survey the capital press corps this year.

Lovrich presented the results at a packed forum in Olympia last February. The survey included responses from 141 current and former legislators, from a broad range of party affiliations and ideologies, gender, and geography.



NICHOLAS LOVRICH BY ROBERT HUBNER



FRANCIS BENJAMIN BY ROBERT HUBNER

Nearly 95 percent of legislators feel that bipartisan collaboration improves the effectiveness of the legislative process. But when legislators compared themselves to their peers, most said they worked in a more bipartisan manner than others.

"We asked legislators about their likelihood of engaging others and being collaborative, and many say, 'I'm that way, but nobody else is'—kind of like the Lake Wobegon effect gone haywire," says Lovrich.

Legislators also felt there was less cooperation than when they first started in the Legislature, a phenomenon, according to the survey results, that could be partly aggravated by full TV coverage of the Legislature's business.

"With open access and TVW always there, there's a change in inclination for legislators to stir up the pot. They'll probably have an audience for it. It'll make the news," says Lovrich with a grim laugh.

Benjamin and Lovrich's work found many legislators, as well as lobbyists and staff, discouraged by what they perceived as higher levels of distrust and less amity among colleagues.

For state Senator Linda Evans Parlette '68, second-in-command in the Senate Republicans, the survey results confirm what she has learned in the Legislature. But she has a remedy: "It's the relationships that you build on both sides of the aisle that enable you to be successful."

Parlette, a pharmacist from Wenatchee who owns an orchard with her husband, has served in the Legislature since 1996. She started in politics as a concerned parent running for the school board in Chelan, then was asked to chair state Senator George Sellar's campaign. She didn't know him, but asking around, found out he was known as a man who worked with both sides of the aisle. That convinced her to eventually run herself.

To Parlette, civility applies not just to legislators, but to anyone who wants to change state law. "Sometimes groups bring in people from legislators' districts and they train them to be hostile. My own constituents have been trained to get in my face and be disrespectful," she says. "I have to step back and say, 'Time out. I work for you.'"

As sunlight streams through the tall windows of her capitol office onto sofa pillows embroidered with elephants, Parlette shakes her head. "I'm passionate about what I'm doing. But I have to do it without shouting, and allow the other side to explain their viewpoint."

Describing her recent work on a road to Cottonwood in the North Cascades, Parlette says she worked with environmental groups to make

the road project happen and find common ground. "You have to lower the rhetoric, zero in on the issue in a normal volume. Anytime two people are yelling at each other, nobody wins. The battle is lost."

State Representative Sam Hunt '67, a Democrat who represents Olympia and parts of Lacey, has been around politics from when he put up signs for Governor Albert Rossellini in 1956. Elected to the Legislature in 2000, Hunt seconds Parlette's thoughts on civility and effectiveness.

"Whenever I talk to a group that's not normally around the Legislature, I tell them it's not the Hatfields and McCoys. We get along, and there are Republicans I'd much rather have a beer with than Democrats. When the gavel sounds at the end of the day, we're able to talk to each other, although it's not as much as it used to be," he says.

Hunt arrived in Olympia after a circuitous route beginning in Yakima. After graduating from West Valley High School—which, he points out, produced three legislators from his class of 1961—Hunt ended up in Pullman, where he earned his degree in English and education.

He also headed up WSU's Young Democrats in the tumultuous late 1960s. Hunt describes the rise of disruptive radical elements among the Democrats, along with very conservative groups of Republicans attempting to take over the college Republican organization. "We had a mock political convention in 1964, and the chair of the Young Republicans was a young man named Sam Reed. Sam and I worked together and we ended up nominating Nelson Rockefeller."

After teaching in Pasco and getting elected to city council there, Hunt worked on education issues in Olympia and then in D.C. for Senator Warren Magnuson. He returned to state government and has worked in and around the Legislature since 1981. In the House, he was Democratic floor leader—organizing votes and debate—and currently is chair of the state government and tribal affairs committee.

Now, sitting on his patio and thinking about effectiveness, Hunt says, "Inside the halls of the Legislature, even among the lobbyists, your word is your honor. You may get to make a mistake once, but once your word is abused, you're done."

Like Parlette, Hunt does see a rise in incivility in the public. "My email has turned nastier in the past couple of years. People email things I would hope they'd never say to your face, like 'tax and spend Nazi,'" he says.

Hunt reflects on the longer mirror of history. "You read books like McCullough's *John Adams*, and we are very tame. In those days it was blood and guts mudslinging. It's nothing new." As we talk, the familiar sounds of the Cougar fight song break out, and Hunt picks up his crimson Blackberry with a grin. It's someone asking for campaign advice.

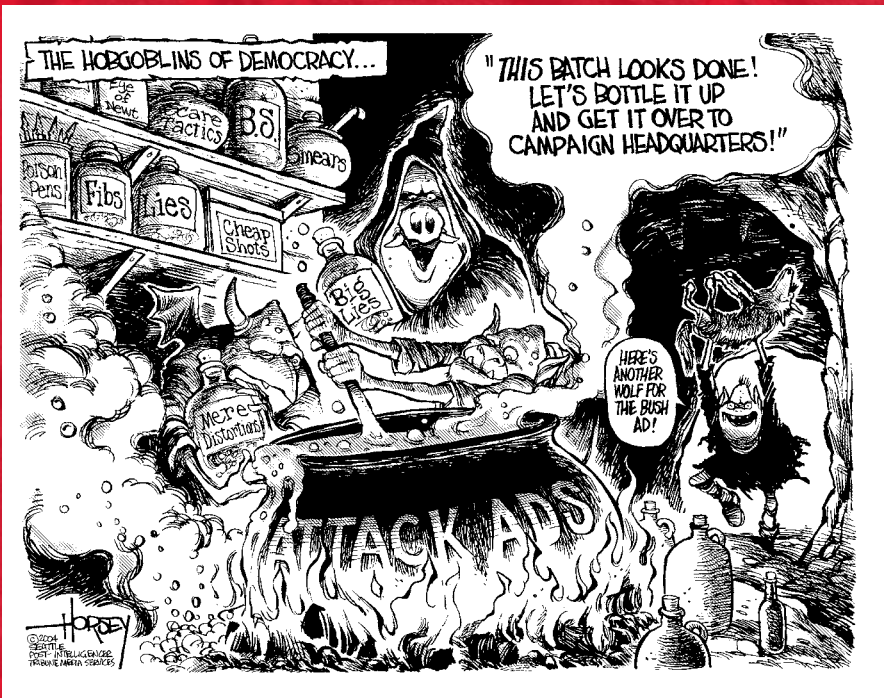
Before returning to WSU in 2008, I spent five years in Olympia working for the Legislature. Behind the scenes, staff, legislators, and others share a common jargon, such as "making sausage," referring to creating policy and laws, or "inside baseball," details of legislative processes that mean little to those outside the institution.



State Senator
Linda Evans
Parlette '68
(left) a Chelan
Republican,
confers about
health care
reform with
Seattle-area
Democratic
Senator Karen
Keiser (right).



ROBERT HUBNER



One of my favorites was “the bubble,” a sense that much of what happened in Olympia went unnoticed by the public. I discovered that a large portion of the public didn’t know much about the Legislature’s work and saw the institution as hopelessly mired in partisan conflict.

“I think the majority of voters don’t understand the process,” says Parlette. “They get little snippets of information from the radio and television, and it’s not totally in the context of the bigger picture.”

Of course, more vociferous legislators and others attract media attention with stunts and animosity. But from my experience, most issues taken up by the Legislature stopped short of violence or scurrilous attacks.

NOT-SO-HAPPY DAYS ARE HERE AGAIN

In the presidential campaign of 1828, enemies of Andrew Jackson accused him of committing multiple murders, “living in sin” with his wife Rachel, and being an uneducated backwoods hick. In turn, Jackson’s opponent John Quincy Adams faced outrageous reports that he procured American virgins for the Russian czar as part of his diplomatic duties.

On the floor of the Senate in 1856, South Carolina Senator Preston Brooks beat abolitionist Senator Charles Sumner with a cane until Sumner had to crawl out of the chamber blinded by his own blood. No one helped because Brooks’s companion held them at bay with a pistol. Sumner had earlier delivered an inflammatory speech that included such descriptions of pro-slavery senators as a “noisome, squat, and nameless animal ... not a proper model for an American senator.”

U.S. history is littered with incidents of severe incivility, often in times when political consensus breaks down over major issues such as slavery. We may be facing such a time now, says Lovrich.

“Civility runs in cycles. We’ve been in a long cycle of tough issues with desegregation, unpopular wars, abortion—lots of issues that divide the parties in very deep ways, and factions within parties,” he says.

Officials in power have also defined “civility” in different ways, using it as a rhetorical tool to suppress legitimate debate. Groups such as suffragettes, early labor organizers, and civil rights protestors were sometimes accused of acting in “uncivil” ways.

New technology can be another aggravating factor. Jackson and Adams had to rely on broadsheets, posters, snuff tins, and match boxes to deliver their message. Today, blogs, YouTube, hundreds of TV channels, and social networks make it easy to spread a message without filters or accountability.

As those media proliferate, many people have their most frequent—and sometimes only—contact with politics through campaign advertising, the perennial cause of much fear and loathing.

NEGATIVE CAMPAIGNS: THE CAUSE OR THE CURE?

A major casualty of incivility is people turning away from the democratic process and forgoing participation even in such basic activities as voting. In the past, conventional wisdom blamed negative political advertising and campaigns.

“I’ve yet to see a poll where people say ‘We love political advertising! Give us more negative political ads,’” says Bruce Pinkleton, a professor in the Edward R. Murrow College of Communication, who has studied the effects of political advertising for more than a decade.

“Starting in the late ’90s, research here at Washington State and at Wisconsin really began to look at what negative political advertising is doing. A lot of people say negative political advertising is ruining democracy. It’s creating cynical citizens,” says Pinkleton. “If you’re cynical and distrusting of politicians and campaign attacks, does that mean you’re not necessarily going to vote?”

Using survey data over several election cycles, Pinkleton and WSU communication professor Erica Austin found that negative campaigns did not create apathy or cynicism in voters. Even those who grew disgusted with negative campaign ads did not stop voting or feel less effective in getting their voices heard.

Recent research by Pinkleton and Austin fine tunes analysis of people’s attitudes toward politics, specifically the difference between cynicism and skepticism. “If people are cynical, they tend to not use media. People who are cynical opt out of the political process. Skepticism we think of as less damaging,” says Pinkleton.

WSU political scientist Travis Ridout confirms Pinkleton and Austin’s results. In his office at the top of Johnson Tower, decorated with campaign bumper stickers stretching back decades and bobbleheads of past candidates, Ridout says, “A typical race’s negative ads are usually about issues that people deem legitimate. People probably won’t like them, but it’s probably not going to make them stay home on election day.”

He and fellow political scientists at Wisconsin and Vanderbilt used comprehensive information about campaign ads combined with surveys to determine people’s voting behavior and political participation.



BRUCE PINKLETON BY ROBERT HUBNER



ERICA AUSTIN BY ROBERT HUBNER



TED S. WARREN/ASSOCIATED PRESS



Take a virtual tour of the Secretary of State's office at wsm.wsu.edu.



TRAVIS RIDOUT BY ROBERT HUBNER

"We have massive databases with perhaps 600,000 to 800,000 observations for presidential campaigns, and that same number for House and Senate races. We compare your level of exposure to that advertising and see if more exposure leads to more participation. In most cases, we find that's the case," says Ridout.

Plus, say both Ridout and Pinkleton, research shows people learn significantly more about candidates' policies from negative ads.

"We know that negative ads contain more policy information. The positive ad is, 'Here's my beautiful family. I represent Eastern Washington values. Vote for me,'" says Ridout. "The negative ad is, 'My opponent supports BP and I voted to take away their tax breaks.' Now we know where the candidate stands on issues. That's more helpful in making a vote than knowing this person has Eastern Washington values."

Negative advertising, accurate or not, also raises the stakes with jarring music and stark images accompanying ominous narratives, which pushes more people to participate in the democratic process.

"Life as we know it will end if my opponent gets elected.' Wow. I better get out and vote, because the environmentalists or the oil companies will be running the country if I don't, whatever your point of view might be," says Ridout.

Both Ridout and Pinkleton say the media share some responsibility to better inform the public and compensate for the negative campaign ads.

"If you or I were looking for substantive information on foreign policy or health care related issues, we'd be very frustrated by the sensationalist, horse race coverage," says Pinkleton.

Ridout agrees. "I found some Senate races where a third of the newspaper articles about the campaign mentioned the political advertising of the candidates. Advertising really drives that media agenda," he says. "They're portraying the campaign as a game, as a race, as a war—who's going to win, who's going to lose."

As an example, Ridout describes the complicity of the media in spreading negative messages from the Swift Boat Veterans for Truth ads against John Kerry in 2004. "Most of us can't even remember the content of those ads, but it spawned an awful lot of media attention. It hijacked the media narrative for two or three weeks and was very effective in that regard," he says.



Civility in Politics and Campaigns ::

At the same time, pundits and media decry the demise of civility. "I don't think I've seen a campaign that wasn't 'the most negative on record.' Journalists repeat it like it's a mantra," says Pinkleton.

Not all negative ads are created equal, however. Austin and Pinkleton further broke down the effect of different types of negative ads into "mudslinging" personal attacks versus ads that compared candidates.

"If you look carefully," says Pinkleton, "You'll see a number of ads that, instead of just saying 'Bruce Pinkleton is a boozing womanizer,' they might say 'Let's compare the candidates.' The attacking candidate will come out as brilliant and trustworthy, and Bruce Pinkleton comes across as a boozing womanizer, soft on crime, against education, and all those things that people are for."

"That comparative strategy, according to our research, is less damaging to the sponsoring candidate than just a purely negative attack strategy."

Sam Hunt, who helps coordinate campaigns in addition to his work as a legislator, agrees with Pinkleton's assessment. "Some people say if you run a negative campaign, that's wrong. Well, if I'm running against an incumbent, I have to give reasons why this time they should vote for me and not mark that oval for the other candidate," says Hunt.

Both Hunt and Parlette point to negative ads produced by non-campaign groups, like the swift boat ads, as a principal cause of egregious mudslinging.

Hunt says the recent U.S. Supreme Court decision allowing more independently created political ads will increase the hostility. "Those ads are more vindictive and uncivil than what a candidate would run. We'll see buildings crumbling because someone didn't vote right, and people will be deluged by those ads on their TV screens."

The state Supreme Court's decision to allow falsehoods in campaign advertising leads to further negativity and distrust, says Parlette, but the candidate is ultimately responsible. "When you see third party groups doing ads, the question is, did the candidate know about it? If the candidates aren't happy, they can stop it."

Despite the reservations, another truism I often heard in Olympia was "negative advertising works," and it does seem to work in driving up interest and involvement.

"The bigger issue is what is the sum total of all these negative political campaigns doing to the American public as far as their desire to participate in the political process," says Pinkleton. "The answer so far is that negative political advertising is not driving down political participation."

MUD STICKS TO THE CAPITOL WALLS

More members of the public may vote when exposed to negative political advertising, but the detrimental effect on newly elected legislators can reverberate as they enter the legislative arena.

"The more hostile the campaign, the less civil they feel the legislative process was," says Benjamin. "We feel people are carrying over that hostility, so when they start the legislative process they're holding back rather than building relationships."

The Foley Institute's survey of legislators showed a range of campaign experiences from benign to hostile, which colored their perception of the other party when they arrived at the Legislature. Those legislators who faced tough attacks were not as interested in collaborating on policy issues with members of the other party.

"When we talked about elections and negative campaigning, the boomerang effect long after those elections are over was a dramatic finding to me," says Lovrich.

Specific training and awareness spurred by the Foley Institute's survey may help alleviate some of the tensions in transitioning from campaign to statehouse.

"Our recommendation is to take advantage of that new legislator training, so they let go of the election and treat the process as totally separate from the election," says Benjamin. "There are a number of techniques within psychology for building civility, collaboration, and group interaction. It's just whether you can get legislators to participate in those activities," he laughs.

A NEW HOPE FOR CIVILITY

Despite negative campaigns, heated rhetoric, and activism without respect, Pinkleton sees hope for American democracy.

"For over 200 years, we've been able to transfer power through peaceful means. If the worse we suffer is negative political advertising, that really isn't a terrible price to pay," he says. "I have a lot of optimism that the American people can see through the deceit and political advertising that is less true, and participate and make informed decisions."

Lovrich says it's more important than ever to encourage collaboration. "We probably have a very bumpy road ahead on financing state government. We also have tons of history as a forward-looking and collaborative state, and we have a lot riding on the belief that you should bring everyone together, however diverse."

He points out a model for encouraging this civility: "Tom Foley and Sam Reed view public service as a high obligation regardless of party. When you're there, the people's business requires you to be not only civil to each other but cooperate where the public requires cooperation."

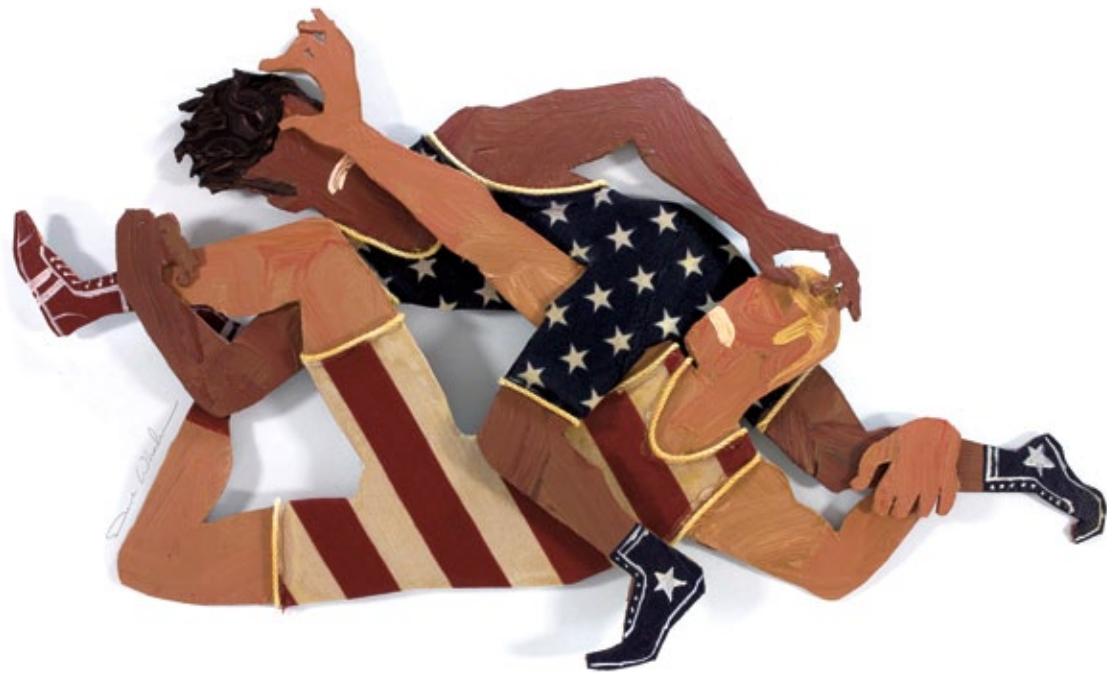
Reed, who received a Gonzaga University law medal and a public official of the year award from *Governing* magazine because of his role in the 2004 election, believes fairness and civility can lead to rewards down the road for elected officials.

"Just because someone may disagree with you, or even beat you on this issue and get more votes, don't let it hurt your feelings. Next time around this person may be right at your side," he says.

In Foley's biography, *Honor in the House* (WSU Press 1999), the former Congressman also pondered the best way to create public policy:

"I always thought ... that the best argument for the party, except for the most committed and knee-jerk Democrats, was to emphasize where we wanted to go with policy, and that we were willing to cooperate ... rather than to just embrace bombast and mindlessly blast away." ⊗

UNDERSTANDING *the* “CIVILITY CRISIS”



HOLLERING “YOU LIE!” in the middle of President Obama’s speech to Congress last September, Joe Wilson of South Carolina clearly broke the bounds of civil political behavior. Although Wilson quickly apologized, his outburst became a prime example of what many see as the “civility crisis” that confronts American democracy. A *New York Times* editorial lamented “So much for civility” while the *Chicago Tribune* asked “Whatever happened to that quaint relic called civility?” Indeed, calls for greater civility are now a regular feature in discussions about American politics. President Obama addressed the question directly during his commencement speech at Notre Dame in May. Outside the auditorium at which he spoke, the president passed a crowd of protestors who sported guns and placards of Obama in painted joker face. Inside Obama mused that we must find a way to make our political debate less angry and more civil. Public commentators from the political left, right, and center—from Steven Carter to Dinesh D’Souza to Gertrude Himmelfarb and Deborah Tannen—have recently written books that warn of the consequences for American democracy of declining civility. Civility is even on Facebook, where the *Civility Project*, started by Professor P.M. Forni at Johns Hopkins University, maintains a website.

Is there a civility crisis in the United States? A recent survey by Rasmussen Reports found that an overwhelming majority of Americans (75 percent) think so, and anecdotal evidence of the coarsening of our public debate abounds. From the public exploitation of lurid details in the Monica Lewinsky scandal, to the burning of effigies of George Bush

by protesters of the invasion of Iraq, to outbursts at town-hall meetings over healthcare reform, to the regular rants of radio and cable television talk show hosts, it appears that political debate in the United States has become angry, bitter, and... well... uncivil! Consider the fact that according to transcripts of Glenn Beck’s show on Fox News, over an 18-month period President Obama and Democrats were compared to Hitler or Nazis nearly 350 times. Wilson’s outburst, in response to the president’s assertion that health care reform legislation would not cover illegal immigrants, was not only rude but also wrong. The reform plan that passed Congress did nothing to change benefits for illegal immigrants. But facts matter little in the shouting matches that now pass for political debate.

Yet if political debate today is polarized and often lacks common courtesy, it is not clear whether this is part of a general decline in civility or how it will impact American democracy. Indeed this is not the first time that American politics has been marked by raucous and unruly behavior. During the election campaign of 1800 the political supporters of both John Adams and Thomas Jefferson printed ugly lies and half-truths about their opponents in party controlled newspapers. In the years before the Civil War it was not uncommon for political arguments to devolve into fist-fights or even deadly duels. In 1865 Senator Charles Sumner of Massachusetts was brutally attacked on the Senate floor by a cane-wielding Preston Brooks of South Carolina for giving a speech against the fugitive slave act. The women suffragettes in the early part of the twentieth century were accused of offending the manners of civilized society, as were African Americans who sought to change the political structures

of the South during the 1950s and 1960s. Indeed, the predecessor of today’s bombastic radio talk shows was Father Charles Coughlin, who used radio appearances in the 1930s to stoke anti-Semitism and inveigh against President Franklin Roosevelt as a socialist tyrant.

Uncivil political behavior is also popular and profitable. There is a reason why rude and loutish political talk shows dominate the airwaves—they attract huge audience ratings and advertising dollars. Rush Limbaugh’s show is the highest rated program on radio, attracting 15 million listeners a week. Joe Wilson, after publicly apologizing for his behavior, instantly became a hero to many Americans; within days of his misdeed more than a million dollars poured into his re-election campaign, “You lie!” T-shirts and bumper-stickers appeared, and Wilson became a sought-after speaker at conservative political rallies. Far from suffering for his display of incivility, Joe Wilson capitalized on it.

But is rude behavior good for democracy? The quality of democratic decision-making depends on the quality of public debate, and there may be good reasons to argue for a more civil tone in our public discourse today. Before jumping on the civility bandwagon, however, we might want to examine more carefully the ways in which civility and democracy are related. Research in the social sciences indicates that this relationship is more complicated, and frankly more interesting, than much of the current discussion suggests. Consider just three aspects of this relationship. First, in a fascinating book entitled *Rudeness and Civility*, cultural historian John Kasson points out that what passes for “civil” or “polite” behavior is neither fixed nor universal. The idea itself is merely a set of culturally and historically defined practices. Thus, what passes for polite conduct in one culture or time period may not be so in a different place or time. A common gesture, such as flipping one’s fingers under the chin for example, would be considered highly offensive in a conversation with an Italian but may go entirely unnoticed in conversations elsewhere. Political behavior is especially sensitive to specific institutionalized norms and practices. Interrupting the president’s speech by yelling an insult clearly violated the norms of decorum and behavior in the United States Congress, but a similar outburst would probably raise few eyebrows during question time in the British Parliament where booing and hissing of opposition speakers, including the prime minister, is common practice—Order! Order!

Questions about acceptable political behavior are also tied in important ways to deeper questions of political power and democratic equality. Those who hold power are able to press their claims and protect their interests within the accepted channels of political conduct, but those without power may often be excluded from making claims in a “civil” way. The political scientist Virginia Sapiro, for example, has noted that for most of American history women violated the norms of civility by simply engaging in public political debate. Women were not supposed to speak openly on such matters and they were literally banned from most spaces where politics took place. For instance, when the reformer Fanny Wright became the first woman to speak at Tammany Hall in 1836, she was shouted down by men who saw her very presence there as improper. Other groups seeking inclusion in American democracy—African Americans, labor organizers, Native Americans, and gay Americans, among others—have historically faced similar dilemmas; either they could wait patiently for others to press their rights within the existing frameworks of “civil behavior” or they could seek democratic reform themselves by confronting and challenging those frameworks. So while some forms of civil behavior may be essential to democratic deliberation, acts of

“incivility” and contestation may also be an important part of broadening democracy and empowering excluded groups.

Finally, styles of political discourse are never far removed from the actual cleavages and substantive issues that divide the public. During historical periods when there exists a general consensus about the scope and purposes of government (immediately following WWII in the United States, for example), political debate tends to focus on narrow questions of policy and government efficiency, on how best to achieve agreed upon ends. Political debate can be conducted in civil and courteous ways during such periods precisely because political opponents do not question each other’s fundamental values or motives. However, during periods of deeper political disagreement (such as prior to the Civil War in the 19th century, the New Deal in the 1930s, or the so-called counter-culture era of the late-1960s), political discourse will necessarily move beyond technical questions of policy and efficiency to focus on more fundamental values such as the meaning of freedom or equality, raising deep questions about political identity and citizenship or what it means to be an “American.” These are critical periods for democratic self-governance, but they will also understandably provoke a more emotional, even violent style of political discourse.

These and other factors are undoubtedly shaping today’s politics and the attendant concern that there is a civility deficit. A more respectful and reasoned public discourse undoubtedly would enhance democratic decision-making and make ordinary citizens less cynical about government and those who aspire to public service. The country, however, is undergoing important economic, social, and demographic changes that raise fundamental questions about American values and our national identity. Previously excluded groups, such as new immigrants and gay Americans, are pressing rights claims. New media—the Internet, YouTube, the blogosphere, 24-hour cable news networks, social media such as Facebook and Twitter—has also radically changed the way Americans communicate with each other, altering the norms of discourse. A better appreciation of these factors may help us to understand what lies behind the seeming anger and bitterness in some of today’s political discourse. Placing today’s raucous political behavior into a broader historical context may also help us realize that it is neither unique nor part of a general decline in manners and civility, but is part of a more cyclical process in democratic governance. ☒

Where are we headed?

A series of programs initiated by the Thomas S. Foley Institute for Public Policy and Public Service at WSU, are aiming to more critically explore the relationship between civility and democracy. One of Speaker Foley’s most lasting legacies was the dignity with which he conducted his public life and his ability to maintain deep friendships across the political aisle. As part of the institute’s programming last year, it partnered with Secretary of State Sam Reed’s office to host a forum in Olympia that examined changing attitudes about partisanship and civility in the state legislature. The institute has received a grant of \$212,735 from the National Endowment for the Humanities to, in the coming year, develop and host a national conference, “Civility in American Democracy: Where Have We Come and Where are We Headed?”

Cornell Clayton is director of the *Thomas S. Foley Institute for Public Policy and Public Service* and *Claudius O. Johnson Distinguished Professor of Political Science*.



Bob and Sue Ritter have spent their careers probing the mind-stomach connection—why we eat and why we stop eating.



BOB AND SUE RITTER are looking cleaned and pressed, but deep in their bodies, from the base of the brain to the hormones of the gut, they're feeling the after-effects of five days in the wilderness. They walked 30 miles with packs, encountering thousands of feet of elevation, windfalls, and part of a day lost to figuring out where they were besides Somewhere on the Bitterroot Divide.

"The person we were with described it as walking on air," says Sue, "because up at the very, very top, at the divide, we were at the highest elevation around and you could see everywhere, in both directions."

"It's kind of like a knife's edge," says Bob.

The payoff came in spectacular views of Montana and Idaho and visits to catch-and-eat alpine lakes.

Still, Bob came back five pounds lighter. Craving something salty and rich, they ate pizza.

Now, as they pull up chairs in the din of Pullman's Black Cypress, a Mediterranean feast beckons in foreign, palate-tempting words: tsatsiki, briam, skordalia, ratatouille, ciabatta, plus the fundamental food groups: oil, garlic, vinegar, Merlot, and India Pale Ale.

Beth DeWeese, my charming and intelligent bride of 27 years, poses a question:

"Do appetizers really stimulate your appetite? They just get me full."

"I think they're something to do while you're waiting," says Bob. "Animals"—and by this he means other, non-human animals—"don't eat appetizers."

Sue counters with a friendly rebuttal.

"Sometimes something good or something you eat for your regular meal can stimulate insulin release," she says. "And if you haven't eaten for a while, that insulin release can actually potentiate your appetite."

This is what can safely be called an Expert Opinion. And so it is resolved: We will get appetizers.





EVERYONE EATS. We obsess over eating. We know we should have several servings of fruit and vegetables each day but can't avoid chips, be they potato, tortilla, or fish 'n'. In some form or other we repeat the mantra my Danish-New Jersey mother uttered for four decades of Sundays: Tomorrow we're all going on a diet.

But for all our obsession, we know little about the science of what's going on, neither why we eat—and it's not just because we're hungry—nor why we stop eating—and it's not just because our stomach is full.

Few people have plumbed these mysteries like the Ritters. Since the 1970s, they have carved out a tidy niche in which she specializes in appetite and he specializes in satiation. They've broken a lot of ground along the way, often with the adventurous attitude that has otherwise reasonable people tightrope across country that nearly defeated Lewis and Clark. When they arrived at WSU, eastern colleagues dismissed it as the "unwashed West" and their startup package was little more than a few cans of paint for an animal room.

"I think they also gave us some animal traps for the wildlife coming up the drain," says Sue. She was only the second female faculty member at the WSU vet school. By then, she had already encountered her fair share of students and faculty who felt she was in the wrong job for a woman.

Both of them flourished with a creativity, freedom, and eclecticism that is reflected in their two sons. Lincoln, 30, set out to be a jazz musician, studied physics and math, and became a computer engineer. Josh, 34, majored in biology, then turned his attention to singing and songwriting. After seven albums, headlining with Joan Baez, comparisons to Bob Dylan, Bruce Springsteen, and Leonard Cohen, and an appearance on Letterman, he calls his parents "the single greatest influence on my music."

In an email interview, he recalls a quote his mom has on her windowpane, that "we should see what everyone else has seen and think what no one else has thought."

"It always felt like a challenge that was worth taking up," he says. "They also find their inspiration, as all artists do, in places and things that might be very far removed from the laboratory. They know that

inspiration can come from anywhere and they work hard to continually satisfy their curiosities. This extends to miniature donkey upkeep, Habitat for Humanity, Biblical archaeology, muralling, mosaic work, backpacking, and traveling all over the world."

The Ritters's main métier is the inner workings of the brain, the most complicated and spectacular organ on the planet.

Josh, who in high school and college worked and published with his mom, calls it, "the terrifyingly vast universe that swirls away between our ears."

"To study the brain is to stand on the deck of a ship and look out at a new and unmapped continent," he says. "All you can see is thick jungle all the way down to the water's edge. It's like nothing you've ever seen before—overgrown, tendriled, populated by mysteries. Then your mom and dad jump over the edge of the ship and swim ashore with a pen and a microscope and set about dauntlessly to try and understand everything they can."

More specifically, they look at the rat brain, which weighs all of two grams and barely covers a man's thumbnail. Bob in particular has focused on a part of the brain largely overlooked by other neurologists, charting neurons and pathways between the hindbrain and parts of the gut. Their world is far removed from *Medium Raw* and *The Belly Fat Cure* but it's the kind of work that stands to uncover the real reason diets don't work, or why we lean towards obesity, why we crave certain foods, or why a diabetic can fail to recognize a fatal dose of insulin.

In some ways, their work is brain surgery, writ small but scalable to the human level and in a realm that is pretty much the most important thing in animal existence.

"If you look back on evolution," says Sue, "all your important sensory systems are right by your mouth."

Yes, love makes the world go 'round and for many of us the dollar is almighty, but our need for food holds sway over our daily activities, from when we wake up to how we move about in our world.

Consider the object lesson of so many marathoners and anorectics who stop ovulating because they are low on glucose, the essential energy source for the brain and a fundamental fuel for the rest of the body. Reproduction is important, the fundamental act of a species perpetuating itself. But first, we eat.

APPETITE FOR KNOWLEDGE

Sue and Bob Ritter are the embodiment of curiosity, constantly shooting the gap between what they know and what they want to know.

Sue Ritter was that way back on Roxy Ann, a small mountain just outside the southern Oregon town of Medford. The family had no television. She spent her childhood hiking and riding bareback, pretending to be an Indian, finding favorite trees. For hopscotch tokens she used shiny pieces of glass and ceramic that she'd pull from pack rat middens. She gave little thought to science at the time, but was loaded with questions and challenged by her father to wonder about the ages of rocks and origins of stars.

"He was a very imaginative kind of person and really encouraged me," she says one morning in her Wegner Hall office. "And he encouraged me in ways that I thought were very unusual for the time. He didn't want me to feel constrained by the fact that I was a girl and that there were certain things that girls should do and certain things they shouldn't."

At Valparaiso University in Indiana, where she studied psychology, she met a kindred spirit in Bob, a Pennsylvania native given to searching under rocks and collecting moths, butterflies, reptiles, and amphibians. Sue took part of her junior year off to work as a United Airlines flight attendant. They married the day after he graduated. When he went for a doctorate in veterinary medicine at the University of Pennsylvania, she followed, finishing her last undergraduate semester in absentia and taking a time-slip job in the lab of Penn neurologist Richard Harner.

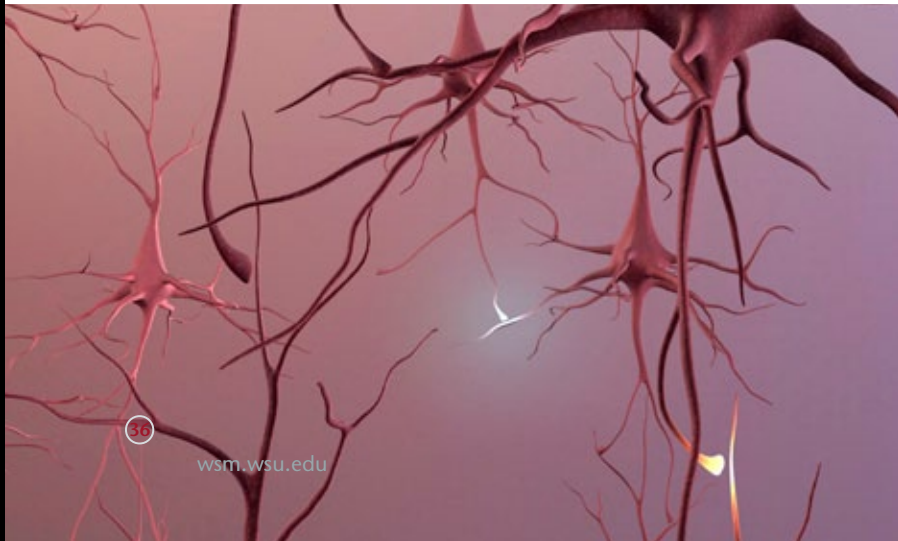
She helped Harner study sleep cycles in cats—cleaning cages, analyzing electroencephalograms, helping with surgeries. He gave her Marie Curie's biography and encouraged her to read scientific journals. Moreover, he showed her that she could design experiments to help answer questions about the brain.

"That opened an area of thought for me."

At Harner's suggestion, she applied to the Penn psychology department.

"The chairman of the department at that time said openly to my face, 'I don't even want to look at your application,'" she recalls. "And he says, 'We're not taking women because women don't stay in the field.'" There were more slights to come, including WSU vet students who complained that it was hard to take a pregnant professor seriously, but she was unbowed.

She went to Bryn Mawr, a women's school, doing more work on cats for her master's. For her doctorate, she focused on hindbrain catecholamine neurons—brain cells in the brain's reward and motivation circuitry—and today studies their role in controlling food intake and metabolism. She took some classes at Penn, and a neuroscience class she attended interested Bob in the field. The teacher, Alan Epstein, became his doctoral advisor and her adoptive mentor. Epstein paid their way to the first meeting of the Society for Neuroscience in 1971. They remember only a few hundred people. The society's 2009 meeting had more than 30,000 attendees.



first we eat



Two co-authored books, and more than 100 papers each later, they're still curious and probing.

"Your answer is never the final answer and the truth you find is only a temporary truth," says Sue. "You always need and want to move beyond that to the next step. And the next step not only points you ahead but it reinterprets often what you have already found. It's a very complex thing. You're in the midst of an enveloping cloud of curiosity that looks ahead and looks back at the same time. You find this common path between what you found before and what you're moving ahead to."

"A lot of the hypotheses that you generate and form, you quickly disprove and have to discard," says Bob. "So in a way it's a lot like turning over rocks. There's nothing under most of them. But when you do find something, it's exciting. And I often wonder why more scientists aren't compulsive gamblers."

ENTER FOOD: Delicate, charred lamb chops, scallops with sliced garden zucchini, a piece of salmon, a pork chop fit for Fred Flintstone. Hungry, we dig in.

In the case of Bob and the lamb chops, this is an act as simple as eating with one's hands. But it's complicated. As Sue told me on an earlier occasion, much of our behavior is organized around food, with a lot of factors determining when we eat: food's availability and tastiness, when we want to eat, social situations, habits. All these factors promote eating when food is available and storing the excess as fat or glycogen, the main way we hold on to glucose.

Sue herself has focused on the relatively fundamental act of how the brain reacts when it senses it might be low on glucose.

A brain needs to be small, if only to get a newborn's head through the birth canal. It can't be cluttered up with stored energy and water.

At the same time, the brain absolutely, positively has to have glucose. Two, three minutes without it, it's over. So glucose storage gets subcontracted to other parts of the body and the brain uses an elaborate supply-chain management system for guaranteed, always-on-time delivery. In times of need, it can tap storage sites, temporarily raising glucose in the blood bound for the brain. It can kick off a process that converts protein to glucose. Peripheral cells in the body can start using more fat instead of glucose, conserving it for the brain.

"All these things, in addition to your stimulation of appetite, keep you going until you can get food," Sue says. Should you go without food for a long time, use up all your fat and protein and become emaciated, she adds, you make ketone bodies, chemicals that can partially substitute for glucose.

It's a system of symphonic grandeur. Ritter has helped chart it, locating glucose receptors in the primitive part of the hindbrain, charting their neural connections and chemical messengers, and linking them to parts of the brain that control feeding behaviors, hormone and neural responses designed to restore glucose levels.

Her questions are not far removed from those she asked as a doctoral student. But as her career developed, so did the tools, including a massive Rand McNally-like atlas.

"It's how we find our way around in the brain," she says, pulling it off a shelf.

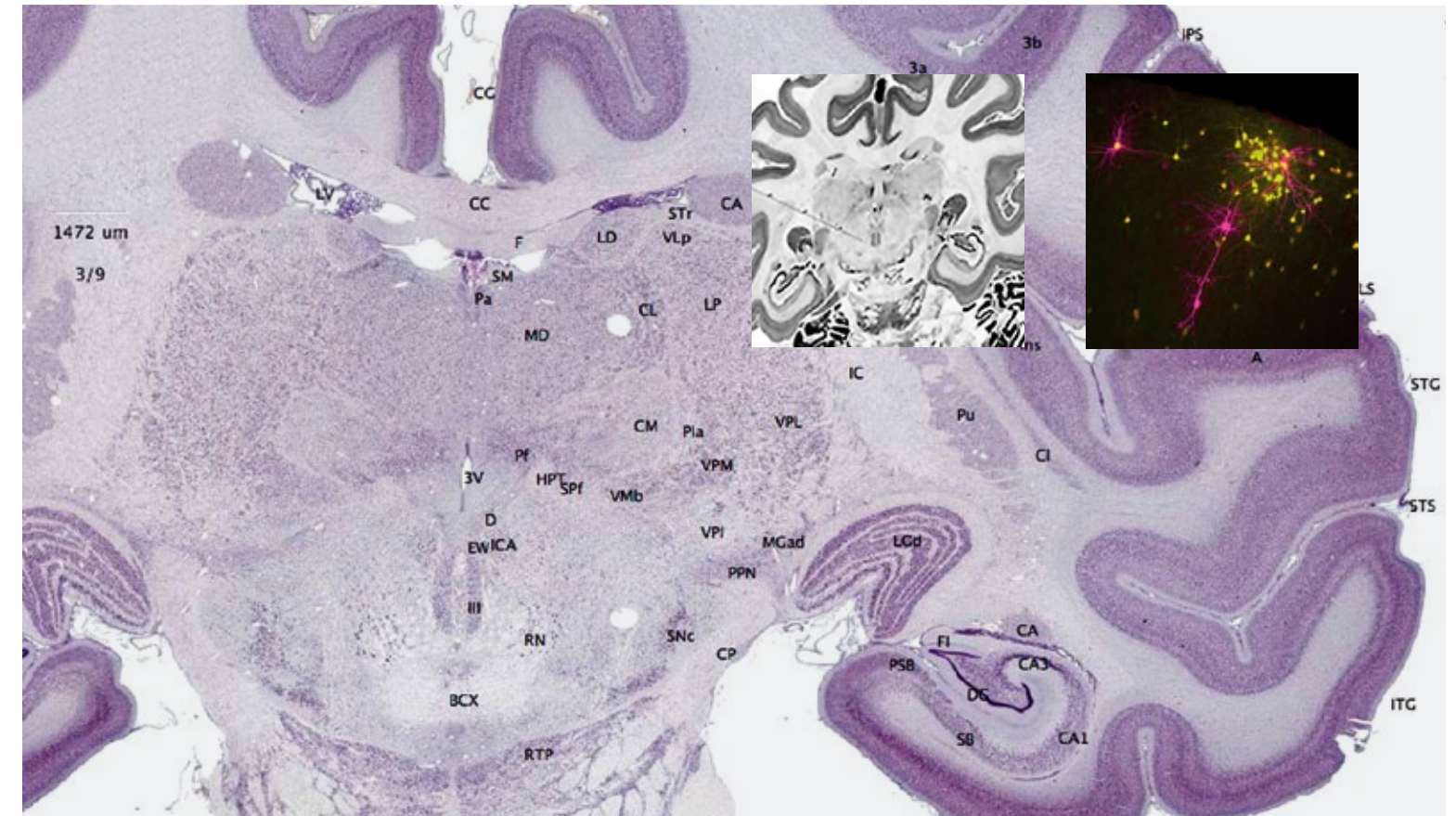
Now, researchers can have antibodies deliver neuron-destroying toxins. These disable an animal's feeding and help identify areas critical to the brain's response to glucose deprivation. Genes responsible for the synthesis of neurotransmitters and other signaling elements can be localized, examined, silenced, deleted, and inserted.

The new technology has fortified the old, including the laboratory version of a deli slicer that can make mounted slides of tissue so thin they look like dried raindrops on a windshield. Special dyes in the samples help trace glucose-specific neurons. Under a microscope, they look like foam—dots and lines of cell bodies with wormlike axons and dendrites that can be charted through a chain of neurons.

But work at the brain's cellular level quickly gets complicated. Branches from neurons influence many parts of the brain. Some neurons inhibit behavior; others excite it. Synapses can form and recede.

Such complexity extends into teasing out an animal's feeding behavior.

"In the old days they thought, 'Here's a feeding center, here's a satiety center, that's all we need to know,'" Sue says. "You lesion the feeding center and the animal will stop eating, you lesion the satiety center, it can get fat.' Now we know that there are systems in the brain that are totally interactive and important controls of food intake occur at different levels of the brain. So yeah, it's not simple."



Opposite: People eat for a lot of reasons—fats, sweets, social stimulation, even how food looks. **Above:** Brain research "atlases" are now multiresolution, interactive, and available in both 2D and 3D (*inset, left*) visualization. Courtesy brainmaps.org. *Inset, right:* Fluorescent labeling is now being done of individual neural circuits. From Neuron, permission by Edward M. Callaway/Salk Institute.





Our intestine may even, in effect, taste our food, he says. Cells embedded in the intestinal mucosa look a lot like those in the tongue. Some have the same taste-receptor molecules. When nutrients contact those cells, proteins similar to taste receptors release peptide hormones to the vagus nerve.

"There are some things that suggest that some of the proteins that allow us to taste food are involved in the detection of those same nutrients in the intestine," says Ritter, "but it's not something that we're aware of in the same way."

At last, we feel full. But as Ritter has seen, it is possible for people to say they're full with nutrients in their intestine but an empty stomach.

The charming and intelligent Beth DeWeese poses another question: "Is it true that it takes 20 minutes for your brain to know your stomach is full?"

Early and powerful signals come while you're eating, Bob reports, and the signals continue even after you've fully stopped. "But I don't think anybody's ever succeeded in experimentally showing that there's a 20-minute lapse," he says.

"The scientific basis for that is sound," says Sue. "It takes a while to absorb the nutrients and get them into your circulation and for your hormones and so forth to begin to respond."

Then there are those unfortunates who don't seem to get the signals. "One of the things that we're really interested in is how, after you've been deprived of food for a long time, your stomach doesn't get bigger," Bob says. "It actually shrinks. And yet when you go back to eat, those cues that would turn off food intake tend to be more suppressed and you eat larger meals."

It's Oprah's world: diet, then relapse.

"That's the problem with every diet drug that's been on the market," says Sue. "As soon as you get off of it, you rebound. And it works the other way too. When you overeat and become obese, your intestinal length increases." You accommodate more and get less full.

In a way, 100,000 years of feast and famine, not to mention millions of animal years, seem to have tailored the human body to follow two rules of eating now central to the Ritters's professional lives: Miss glucose and die. Accumulate and store nutrients like fat and glycogen, maintaining a metabolic piggy bank for the lean times, and live.

"It's an irony that in the 20th and 21st centuries we said obesity must be a disease," says Bob. "But we both think the tendency to obesity may be something that's adaptive in an evolutionary sense."

A FEW YEARS AGO, Rick Rogers and his wife flew in their own airplane from Columbus, Ohio, to Pullman. Bob Ritter met them at the airport and they took him up for a ride. Twenty minutes or so later they were in Hell's Canyon, the deepest river gorge on the continent, and Bob could see the Snake River meandering a mile below the rim and the Seven Devils Mountains thousands of feet above.

"I could see the tumblers going in his head," Rogers says from Baton Rouge, where he's a professor of neuroscience in the Louisiana State University system.

Soon after, the Ritters had their own plane and were flying to family and vacation spots throughout the Northwest and California.

"You'd never know it," says Rogers, "but I think he's adventurous as hell. She is too."

That's reflected in their work, adds Rogers, who has followed the Ritters for most of their careers.

"You have to be willing to take technical risks to advance your craft, and it's risky, because if you're wrong, you're out of funding," says Rogers. "You have to be willing to work the corners of the envelope, not unlike when you fly."

In the 1940s and '50s, neuroscientists grew to believe that both feeding and satiation were regulated by regions of the hypothalamus, just above the hindbrain, site of the medulla and pons. Working out of Pullman, away from better known neuroscience centers and looking at a less appreciated part of the brain, the Ritters were among the first to reveal important functions of the hindbrain in the control of food intake.

Sue, Rogers says, developed a greater understanding of how an animal's physiological responses to low glucose are organized. By way of explaining how important this is, Rogers notes that "great handfuls" of your brain's cortex can be removed, but you will survive. But damage your dorsal medulla, one of Sue Ritter's main areas of focus, and you die. Immediately.

One possible implication of her work is a better understanding of a worst-case scenario of low glucose that is a complication of insulin therapy. If a diabetic takes too much insulin, it can lead to convulsions, coma, and death. The first times this happens, warning signs like shaking, sweating, and an urge to eat pop up. The fundamental problem is hypoglycemia, and eating makes the problem go away. But over time, repeated episodes of low blood sugar desensitize the body to the warning signs, hence the condition's name: hypoglycemia unawareness.

Which brings us to another airplane story.

On a flight between Moscow and Boise, Idaho, the Ritters see a young man acting disoriented and irrational. He is starting to go into convulsions. Flight attendants ask him if he is on any special medications.

Sue Ritter, former flight attendant and working neuroscientist, is thinking, "hypoglycemia unawareness." As it happens, the man is a diabetic whose schedule of eating and injections has been disrupted by travel. But at that particular moment, in the midst of his confusion, he manages to say just one word: "insulin."

The flight attendants start making plans to give him insulin from his carry-on.

"It would have killed him," says Sue. "We said, 'Give him juice, give him sugar.' He snapped right out of it. As soon as you give glucose, it's like the parable of the Bible—take up your bed and walk. It's just immediate."

She's referring to the story of Jesus healing a disabled man at the pool of Bethesda. Science is usually not so instant or miraculous. You follow your curiosity, slowly putting one foot in front of the other. And once in a while, thousands of feet up, you're walking on air. ☒

Sue and Bob Ritter have spent their entire careers thinking about the brain's role in eating. Sue has focused on appetite, Bob on satiation.

Sue's work has shown glucose-sensitive cells in the **hindbrain (1)** signal the body's neural networks to control appetite and metabolism. She studies how a shortage of glucose activates these networks and how their signaling mechanisms are altered in diabetics.

The **hypothalamus (2)** integrates the many internal and external signals influencing food intake and metabolism. One of Sue's goals is to find the neural pathways between the hindbrain's glucose-sensitive cells and how the hypothalamus processes their signals.

The **pituitary gland (3)** joins the hypothalamus in the timely secretion of hormones that affect growth and metabolism and help counteract a shortage of glucose.

The outer shell of the **adrenal gland (4)** secretes glucocorticoids, which promote the metabolism of fat, conserving glucose. The gland's core secretes adrenalin, which mobilizes glucose and fat from storage sites, boosting the availability of glucose for the brain.

The **vagus nerve (••••)** is a superhighway of information between the brain and the digestive tract. Work in Bob Ritter's lab has shown that rats with damaged vagus nerves are not as satiated by fats and sugars.

In the brain, the vagus nerve uses glutamic acid as a neurotransmitter. Bob Ritter's group finds that blocking certain glutamic acid receptors in the hindbrain reduces satiety.

The **gastrointestinal, or GI, tract** has as many nerve cells as the spinal cord and secretes more hormones than any other organ system in the body.

STAFF ILLUSTRATION/SHUTTERSTOCK

We may think we stop eating because our **stomach** is full, but that feeling is only part of the process. More important, sensors along the GI tract tell the brain not only how much we've eaten but what—and when to stop eating.

Cells in the **duodenum (5)** secrete **cholecystokinin** to signal satiety. High amounts of dietary fat cause nerves along the intestine to become less sensitive to the hormone, possibly causing people who eat a lot of fat to not feel full as quickly.

The **pancreas's (6) islets of Langerhans** secrete insulin, which helps cells use glucose.

When blood sugar levels fall, the liver converts glycogen to glucose, which is needed to fuel the brain. **Fat cells** secrete **leptin**, which lowers appetite in people with low or average body weights. Some of Bob Ritter's research focuses on how reduced sensitivity to gut signals may contribute to obesity by reducing sensitivity to leptin.

Browse brain maps and read more about the Ritters' research at wsm.wsu.edu.

WE'RE REALLY LAYING into our plates now and things are getting wild, physiologically speaking.

We're in a high-speed biological ritual of detecting, discriminating, and accepting. Our noses give our food stellar grades. A cranial nerve with a direct line from the tongue to the brainstem picks up texture and heat. Two other cranial nerves relay the sweetness that can cue us to food rich in calories, the savory meat taste known as umami, the saltiness of sodium needed to maintain blood volume and make nerves function. As the food passes the back of the mouth, the tongue checks for bitterness—a last-second security check for alkaloids and other poisonous stuff.

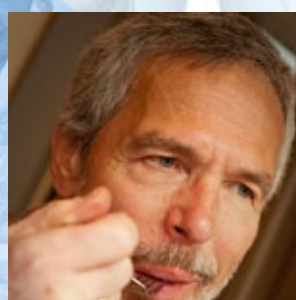
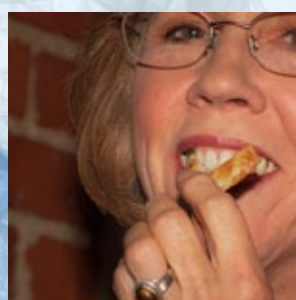
All systems are go. The menu is long, so we have no reason to stop. But as Bob Ritter knows, at some point we will. And it won't necessarily be because we're physically stuffed.

Even before food is absorbed, our gastrointestinal tract, from the mouth and stomach to the intestines, is gauging our food's chemical and mechanical properties. The vagus nerve, wandering from the brainstem and throughout the gut, is a hotline of all-points bulletins.

With each swallow, the stomach relaxes a little bit in what's called "receptive relaxation." It keeps pressure from building up, lest it limit intake. Cut the vagus nerve, as when someone gets a vagotomy for a gastric ulcer, and the process goes away.

Empty a stomach as quickly as an animal eats and the animal will eat continuously. But just down the line, the intestine appears to have a say in satiation as well.

"If we put nutrients into the intestine"—mimicking the satiation of normal eating—"we can stop the animal eating almost normally," says Bob.



N 48° 25' 9" | W 122° 34' 2"

where land and water meet

A step
in the
race to
save
Puget
Sound

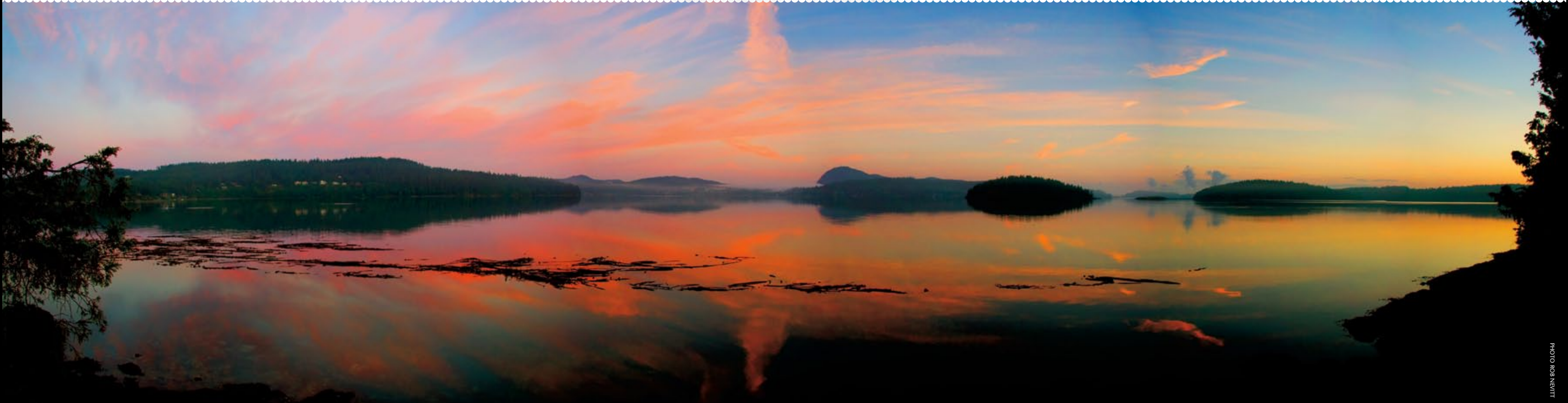


PHOTO ROB NISITT

by Hannelore Sudermann :: Kiket Island has two miles of shoreline, an upland forest with old-growth characteristics, and an untrammelled wildflower prairie.

The 84-acre treasure surfaces in the northern part of Puget Sound. Here, two hours north of Seattle, tidal currents pour through Deception Pass into Skagit Bay on the west side of the Swinomish Indian Reservation.

This quiet parcel, which has hardly been touched since the region was settled in the 1850s, is a vital piece of a statewide endeavor to restore Puget Sound to health by 2020.

For such a quiet place, it has seen a lot of action. It was once slated to hold a nuclear plant for the City of Seattle, and for a few months this year it took the limelight as a band of interested parties, including the state, the Trust for Public Land, and the Swinomish Tribe, hammered out a \$14 million deal to keep the island from being sold to a developer and to join it to the Deception Pass State Park, with the tribe listed as co-owner.

The careful and sometimes controversial deal was made to protect the island and 12 adjacent acres on the mainland, which includes a pocket estuary where juvenile salmon migrating out of the Skagit River might feed and prepare for their long trip into the ocean.

The deal almost didn't happen.

We manage to get a rare view of the place just a few weeks after its sale in June. Driving beneath a green canopy of trees on Snee Oosh Road we arrive at a locked chain-link gate at the top of a single lane drive. From here it is impossible to tell if this is the way to the island, or just another long drive to one of the beach houses along the shore.

Steve Hinton '84, a restoration ecologist with the Skagit River System Cooperative for the Sauk-Suiattle and Swinomish Indian Tribes, is the next to arrive. A few minutes later Todd Mitchell, '97 MS, the Swinomish Tribe's water resources manager, pulls up with the key so we can wander in and see for ourselves the old-growth trees, the untouched beaches, and the vacant home that was built on the southwest end in the 1950s.

Mitchell's dad and others in the Swinomish community remember visiting the island years ago. One of its previous owners, Gene Dunlap, welcomed people to use the open beaches on its south side. "The gate was always open," says Mitchell. But that hospitality ended in the summer of 1969 when Seattle City Light bought the island and started plans to build a \$250 million nuclear power complex there and 10 miles to the north on Samish Island. Engineers believed they could cool the reactor with the tidal currents. But after

numerous studies and many heated community protests, the city scrapped the idea. Since 1982, the property has belonged to a Bellevue-area family.

To Mitchell, the recent change in ownership of Kiket means the return of a cultural and historical resource to the Swinomish. The Indians harvested shellfish from the tidelands and salmon from the shores. The deal also reinforces treaty rights to the tidelands and ensures the tribe has a hand in maintaining a precious and wild place within the boundaries of the reservation.

Hinton, who is working on a doctoral degree in natural resource management at WSU, says he also sees promise in the deal. He's interested in the beach landscape on the south side, which faces the Skagit River Delta, and around the island to the lagoon just north of where a gravel tombolo links Kiket to the mainland. We stop to look at the lagoon as a heron glides over. Here chinook salmon fry that have made their way down the Skagit River can find a safe haven where fresh seep springs blend with the salty Sound. The juvenile salmon can feed and mature before heading west through Deception Pass and out to sea. "The more they can hang in here, the better off they are in the long run," says Hinton.

Our group crosses the gravel drive and we hike up the single road that runs the length of Kiket. As we reach the western point, the two men

are much less interested in the home site—a tennis court, which had been overgrown with weeds, or the small salt water swimming pool—than they are in the wilderness.

We continue on to the "bald," a second tiny island off the end of Kiket called Flagstaff Island. We stop at the edge of the prairie, which looks much as it did when the first explorers sailed into the bay. We look across the water to Deception Pass and the 180-foot-high bridge that spans it. And then turn our gazes south along Whidbey Island and across Skagit Bay to another stunning view: Lone Tree Point, a landmark on the reservation.

Kiket Island is a place to preserve and restore chinook habitat, says Hinton. It's a continuation of his work along the Skagit River Basin, the Sound's largest tributary. The Skagit has many things going for it as far as providing habitat for salmon, he says. A lot of land upriver in the mountains was long ago placed under federal protection. Then the spotted owl wars took more ground out of development in the 1980s. And the best news is that the upper Skagit wasn't really humanized until the 1970s when the Cascade Highway was punched through, says Hinton. "Before then, those roads were practically wagon trails."

But things get dicier for the salmon as the river nears the salt water. Over the past century the lower Skagit has been diked and

where land and water meet



developed. As the river spills to the Sound, much of the shoreline has been altered. Kiket, by contrast, is a rare stronghold for the fish. It has healthy eelgrass beds in a sound where eelgrass is disappearing. It has a spawning beach for forage fish like smelt and herring. And it is an important link in a chain of pocket estuaries that provide rearing areas for young salmon, says Hinton.

Overall, Puget Sound is losing more habitat than is being restored, says Hinton. Protecting places like Kiket prevents the hemorrhaging of undeveloped lands. Hinton himself is coordinating several projects to restore habitat around the Skagit River, along Skagit Bay, and up into the Swinomish Reservation.

To date, one-third of the Sound's shoreline has been altered by hard structures like bulkheads and retaining walls, nearly three-quarters of the state's intertidal salt marshes have been covered over with development and industry, and as the region's population increases, so will the pressures on the Sound.

The biggest threats are toxic sites, stormwater, and loss of shoreline and habitat. The big push to restore the Sound to health by 2020 involves state, tribal, and local governments working with communities and conservation groups. And in the middle of that enormous project sit

pristine places like Kiket. "You want to work in places where you have the largest core intact," says Hinton, adding a mantra in ecology: "Protect the best, restore the rest."

THERE'S SOMETHING IN THE WATER

Puget Sound as we know it didn't exist 13,000 years ago. During the last great continental glaciation a giant ice sheet covered and killed the living landscape. But as the ice melted, the Sound came to life. It has become a universe in motion—birds, algae, fish, seals, whales, rivers, forests, undersea gardens, all part of a system that has been studied, mapped, and recorded. It is encased in mountains, washed out by tides, and constantly fed by a flow of rivers bringing rain and snowmelt down from the mountains. It's a rich, complicated, stunning system.

Only recently has a new force begun to alter the water body. "A human invasion now rolls over the land," notes Arthur Kruckeberg in his *The Natural History of Puget Sound Country*. Even in 1991, when botanist Kruckeberg first published his book, water quality was a major concern. The primeval forest was all but gone. "The crowning insult has been the progressive deterioration of water purity in that inland maritime jewel of our region," he wrote.

In some ways the worst is over. Thanks to work started by the Environmental Protection Agency and local efforts, we are no longer burning garbage or dumping our sewage straight into the Sound. And we've closed down the worst polluting plants and foundries.

But when one problem goes, a variety of fresh ones can surface. One week before our trip to Kiket, scientists with the National Oceanic and Atmospheric Administration and the University of Washington warned of a rising acidity in the Sound, noting that in some places it was at levels lethal to shellfish and damaging fish eggs and oyster larvae.

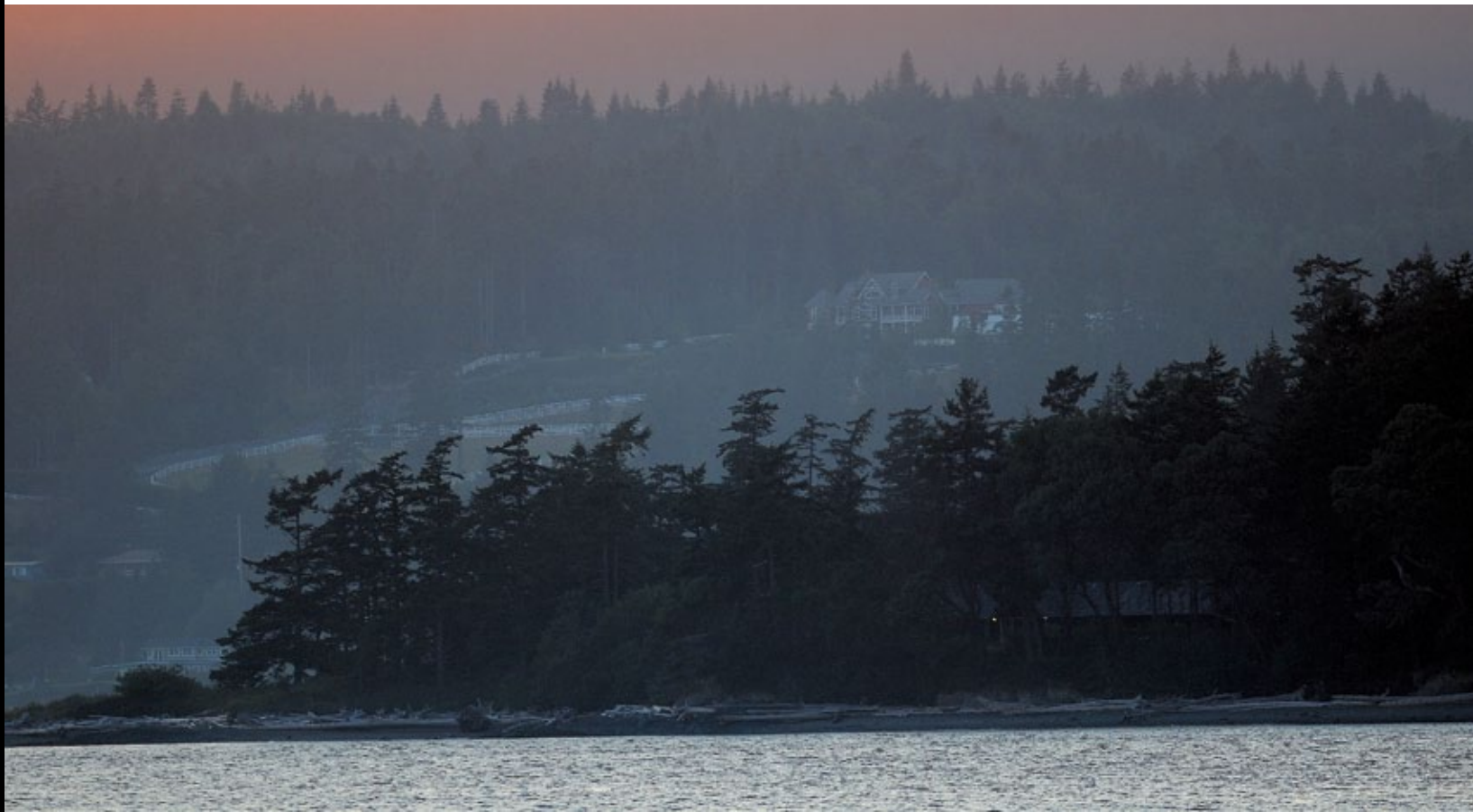
The acidity has to do with increased acidification in the ocean, a probable result of global climate change, but that's just one issue within the Sound, says John Stark, an ecotoxicologist and director of the WSU research station in Puyallup. Stark also runs WSU's salmon toxicology research laboratory and is on the science panel of the Puget Sound Partnership, a state agency focused on the legislative mandate to clean up Puget Sound by 2020. His focus is on the effects of certain chemicals on freshwater and marine organisms.

Above: Todd Mitchell, '97 MS, and WSU graduate student Steve Hinton walk across Kiket Island. **Opposite, clockwise from upper left:** Skagit County salmon habitat clogged by logs. WSU scientist John Stark studies the effects of urban and farm run-off on salmon. Lone Tree Point, with Kiket behind it to the right, is a traditional fishing and foraging site for Swinomish members.



PHOTOS THIS PAGE AND OPPOSITE INGRID BARENTINE





In some parts of the Sound leaky septic tanks and runoff from residential areas are compounding the problem, he says. Detergents, adjuvants (drugs used to enhance the effects of other drugs), and surfactants (compounds that lower the surface tension of a liquid and are found in paints, detergents, and cosmetics) can harm aquatic organisms. These things are coating gills and trachea of organisms so there's less oxygen exchange, he says, adding that some of the surfactants act as estrogen and there's some evidence of feminization in male fish and sterilization in females.

Fourteen million pounds of toxic pollution washes into Puget Sound each year, according to the state Department of Ecology. That includes oil and grease from parking lots, fertilizers and pesticides from yards and farms, and heavy metals from vehicles.

Some chemicals, such as some pesticides, can break down and dilute rapidly. But others, like PCBs (found in old appliances and fluorescent fixtures) and heavy metals, hang around for a very long time. And some we don't even realize we're putting into the Sound, says Stark. Citing recent research, he points to birth control pills (which cause higher levels of estrogen through urine), caffeine, household products, and a pharmacy-full of items, including Prozac, ibuprofen, and sunscreen.

Stark isn't simply interested in what one chemical can do. He's focused on how they mix, how they change. "Animals in the environment are not exposed to one chemical at a time," he says. "They're often exposed to mixtures of a lot of different chemicals, but usually at very low concentrations."

When certain things mix, though, you have synergisms. The result is more potent than expected. The compounds cause serious damage. Among the classic compounds Stark has been studying are organophos-

phates like diazinon and malathion, and carbamates like Sevin or other carbaryl insecticides. "If you expose fish to really low concentrations of these singly, you don't see much of an effect on anything," he says. "But if you have some of these mixtures together, especially with malathion, the fish start to die."

"Mixture toxicity is very complicated," says Stark. It's hard for regulatory agencies like the Environmental Protection Agency to assess and predict what might happen. But it is something they're working on, he adds.

While pesticide issues do come out of farmland, Stark is quick to point out that pollution from urban and suburban areas cause as many if not more problems. He cites a 2006 U.S. Geological Survey study, *Pesticides in the Nation's Streams and Groundwater*, which looked at nearly 180 rivers and streams nationwide. The study found that many of the pesticides Stark studies were found in greater concentration in urban streams than agricultural streams. People need to apply their pesticides and fertilizers correctly, says Stark. What's happening is they're using them more frequently than allowed and in places where they're not supposed to. "They need to be sure it's not overshooting the lawn and landing on the sidewalk," he says. From there it can wash right into a nearby stream or storm drain.

TURNING THE TIDE

Puget Sound, at 42,791 square kilometers, is the nation's second largest estuary. When it comes to major waterways, it should be up there in the national consciousness with Chesapeake Bay, the Great Lakes, and the Everglades, says David Dicks, executive director of the Puget Sound Partnership. But right now the Sound is at the "kids' table" with 27 others

in the Environmental Protection Agency's national estuary program. There, its peers include the Tillamook estuaries in Oregon (1,400 square kilometers) and California's Moro Bay (240 square kilometers).

"Puget Sound has never really fit in that group," says Dicks. And where federal funding has in the past come through for endangered species salmon projects, now many in Washington, D.C., are "salmon-weary," he says. Yes, endangered species are at the heart of it, but there's much more to it, he says.

In 2008, Washington Senator Maria Cantwell introduced the Puget Sound Recovery Act, which would amend the federal Clean Water Act to include Puget Sound and establish a federal Puget Sound program office. This would make the Sound eligible for as much federal money as the Great Lakes and Chesapeake Bay get in a year. If it succeeds, it will "create a sort of Yin to the Chesapeake's Yang," says Dicks. The Chesapeake, because it has so many states and borders involved, has to be a federally led program. "Here it's the opposite," he says. "We're one state (and Canada)." The constituents are a diverse group (with advisors that include tribes, city and county leaders, businesses, and environmental organizations) that can provide a unified effort, says Dicks.

William Ruckelshaus served as the first chief of the EPA when President Nixon established the agency in 1970. He was also President Clinton's envoy to the Pacific Salmon Treaty and President George W. Bush's appointee to the U.S. Commission on Ocean Policy. Until this summer,

he was chair of the leadership council for the Puget Sound Partnership. And he's head of the advisory committee for the William D. Ruckelshaus Center, a joint effort between Washington State University and the University of Washington to serve as a neutral resource for collaborative problem solving within the region.

He has a long-range view of how Americans have been treating their waters. "We have as a society over a period of forty years brought point-source pollution under control," he says, "Where we have not been successful is talking about non-point source pollution. We didn't even discuss urban and farming and suburban runoff."

Ruckelshaus recently attended a meeting of the Puget Sound Partnership's Ecosystem Coordination Board at WSU's Mount Vernon research station. The topic turned to retrofitting the region's urban roads and rooftops to hold back contaminated stormwater from the Sound. "There is truth to the adage we're paving Puget Sound," says Dan Wrye, water quality manager for Pierce County. "We need to get a handle on how to at least pause it." There are so many parties—tribes, cities, businesses, and citizens—involved, and not all of them want to spend the time and money to clean up the Sound, or see the need for the expense.

Ruckelshaus sees a solution: a collaborative push. "The only thing that I've seen that works is to get the people affected at the table. We've got to figure a way to get people to believe it is in their interest to change their behaviors."



Opposite: Kikiet Island (foreground) is one of the largest undeveloped areas in Skagit Bay.

where land and water meet

A SEA CHANGE

We get a second view of Kiket with Jack Hartt, a ranger with Deception Pass State Park, as he motors photographer Ingrid Barrentine and me across Skagit Bay in a boat. The deal to buy the island had been years in the making, says Hartt, adding that he feared many times it would run aground. There were issues about what rights and duties the tribe would share, concerns about raising the money, and some public frustration about using state money to add to the park when the state is laying off workers.

Hartt is quick to point out that the \$2.5 million in state park funds for the purchase came from accounts dedicated for land acquisition. Millions more came from other sources, including the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and the state Salmon Recovery Funding Board.

The deal started simply. The owners approached Washington State Parks with an offer to sell the island. “We looked at it and thought, well, what a beautiful place,” says Hartt.

Hartt, who already had a taste for Washington’s spectacular landscapes from his seven years at Deception Pass State Park and before that at Riverside State Park in Spokane, was nonetheless amazed when he

stepped foot on Kiket. “It’s one of those feelings,” he says. “Every new vista you saw was exhilarating.”

The tidelands are pretty much intact. And the upland forest reaches right down to the water’s edge, which is rare, says Hartt. Usually that area is developed with houses, cabins, and grassy yards. “Here we have two miles of shoreline where the trees are still hanging over the beaches,” he says. There’s forest, beach, owls, and eagles. It was enchanting, he says of that first tour. “I haven’t lost that feeling.”

The island fits in beautifully with the other protected areas of the park, he says, as we cruise by Strawberry and Ben Ure islands. The state parks system includes hundreds of miles of beaches and tidelands. These parks not only preserve nature and habitat, they offer a place for Washingtonians to connect to the Sound, be charmed by its beauty, and maybe learn to be better stewards of this resource, says Hartt.

Kiket was first owned by the Swinomish Tribe under the 1855 Treaty of Point Elliott. Like a number of other waterfront parcels in the area, the land was sold. In the 1950s, Gene Dunlap, owner of a tugboat business in La Conner, decided to move there with his family. Margie (Dunlap) Zimmerman x’53, lived there for a few years. “It was a beautiful place,” she says, recalling the beaches, the forest, and the serenity of the site.

INGRID BARRENTINE

Her father Gene filled the home with souvenirs from overseas and loved to entertain.

Perhaps he would be pleased that the property now belongs to the park and will be open to the people of Washington, says Hartt upon hearing this.

When Seattle City Light bought the island for a nuclear power plant, the project triggered dozens of biology and ecology studies both on land and in the water, making Kiket one of the most studied areas of the Sound. It also triggered a tide of public protest over the safety of those who lived nearby and the damage it might do to wildlife. The utility scrapped the project in 1972.

In 1982, Seattle-area financier Wallace E. Opdycke bought the property for \$1.4 million. As Hartt’s boat glides into the glassy bay on the northwest end of the island, he talks about how Deception Pass is perhaps the best all-around park in the state. Kiket, which will be available for day use only and only accessible by non-motorized boat, fits in well. “The park has the greatest variety of natural resources and recreational resources,” he says. There’s a large lake, the 1938 bridge behind us, and now ten islands all around us, bays and wetlands, hiking trails and history.

Opposite: Ranger Jack Hartt of Deception Pass State Park. **Ko-Kwal-alwoot** of Samish Indian legend. **Above:** A fog rolls in from the ocean, cloaking Deception Pass Bridge.

It even has its own legend—one that’s all about the health of the fish and the water. Back on dry land, we stop at the north end of the park to visit a woodcarving titled “The Maiden of Deception Pass.” The work is in honor of Samish Indian culture and a historic village nearby. The story is of a woman of the village named Ko-Kwal-alwoot who was lured into the Sound by a young chief of the sea. He came out of the water and asked her father if they could marry. But her family refused him.

Then the fish became scarce, the shellfish disappeared, and the fresh water dried up. Ko-Kwal-alwoot went to the water’s edge and begged the chief to bring back the food. He said he would, but only if her people would give her up.

The story resonates with us. As author/biologist Kruckeberg urges, we will have to change our behaviors and expectations for the sake of the Sound, to restore the fish and the shellfish.

Ko-Kwal-alwoot’s people worked out an agreement. She could marry the chief, but would return to the land each year to visit. Every year for four years the woman walked out of the sea. Each time she was colder and more a creature of the water than of the land. Barnacles grew on her face, kelp tangled in her hair, and by the fourth year she was obviously unhappy to be away from her watery home. Finally, her family decided to release her. While they never saw her again, they knew she would always be watching over the village, and they continued to enjoy the bounty of the beach and the fish of the Sound. ☒

Follow the history of Kiket Island through an interactive timeline at wsm.wsu.edu.

Sarah Lewis Scholes '99, '03

Bachelor's of Science in Biological Systems Engineering and Master of Science in Engineering.

Civil engineer for the U.S. Forest Service Rocky Mountain Research Station; conducts post-wildfire erosion and vegetation response research to help forests recover to pre-fire conditions.

Honored by WSU's College of Agricultural, Human, and Natural Resource Sciences with the *Rising Star Award* during the 2008 Women's History Month.

Loves to ski, vacation on the beach, and attend Cougar athletic events with her son Connor and husband Bob '00.

Life Member of the WSU Alumni Association.

"Bob and I joined because membership in the WSUAA is one way alumni and friends can enjoy tremendous money-saving discounts and support the university we love at the same time. Plus, it's a great way to show our Cougar pride."

**Membership Matters.
Join Today.**

WASHINGTON STATE UNIVERSITY
ALUMNI ASSOCIATION

1-800-258-6978 • www.alumni.wsu.edu



*Class notes are
now online!*



wsm.wsu.edu/mystory

myStory

CLASS NOTES

1930s

Emery Bator ('38 Bus. Admin.) turned 100 in August, and retired from the Stanford Research Institute in 1975. There are five brothers in the Bator family who went to WSU, and at least 10 nieces and nephews who are also Cougars. Bator and his wife attended the game between California and WSU in 1940.

1960s

David Ensor ('63 Chem. Engr.) specializes in aerosol and air pollution research and is now the Research Triangle Institute International Distinguished Fellow. Ensor has worked with RTI since 1980, and played a part in the founding of the American Association for Aerosol Research as well as the journal *Aerosol Science and Technology*. He was presented with the Gene and Linda Voiland School of Chemical Engineering and Bioengineering Distinguished Alumnus Award at WSU this past May.

Robert M. Clark ('68 Police Sci.) retired from Safeco & Liberty Mutual Insurance after 38 years there. He was an Armor Officer for four years in the U.S. Army, touring in both Korea and Germany. Clark and his wife, Tae, have a second home in Mesa, Arizona, where they intend to spend their winters.

1970s

Ruth Oniang'o ('71 Home Ec., '73 MS Hum. and Nat. Res. Sci.) joined the Board of Advisors of the Virtual Fertilizer Research Center. Oniang'o is founder and leader of the Rural Outreach Programme, an NGO based in Kenya that supports resource-poor farmer groups. She was a member of Kenya's parliament 2003–2007, a member of the Sasakawa Africa Association Board of Trustees, advisor to the University of Leeds Africa College Initiative, and chair of Kenya's Food Security Programmes.

Russell J. Anarde ('73 Bus. Admin.) is corporate lead executive for company business at Northrup Grumman Corporation in Colorado. He was in the U.S. Air Force for more than 28 years and retired as brigadier general. He has an MBA from the University of Utah and a master's in logistics management from the Air Force Institute of Technology.

Bruce L. Johnson ('74 Comm.) married Amy-Beth (Davis) Johnson on August 8, 2010.

Kevin Gould ('77 Bus.) joined the board of directors for the Trans-Pacific Aerospace Company. Gould has worked at Boeing and Adam Aircraft Industries Piper Aircraft, and served as president and CEO of Piper Aircraft from 2009. He has an MBA from Harvard, an MS in management from Stanford University's Sloan program, and a JD from University of Southern California.

David Myers ('77 MA Soc., '80 PhD Soc.) is the American Institutes for Research's president and CEO. The not-for-profit organization conducts behavioral and social science research and delivers technical assistance in health, education, and workforce productivity.

» tracking



Mieko Nakabayashi '92

Making policy public

by Rich Roesler :: Growing up in late 1960s Japan, Mieko Nakabayashi had an unlikely goal. The eldest daughter of a farmer-turned-land-developer, she dreamed of living overseas.

"I was so curious about the world," she recalls.

Four decades later, that Saitama Prefecture schoolgirl has grown into a power player with a resume spanning the Pacific Rim and two nation's capitals. Nakabayashi, 50, has worked as a television reporter, think tank researcher, and professor. For a decade, she worked as a U.S. Senate budget staffer.

Her biggest move came last year, when she was elected to Japan's House of Representatives. Long acquainted with the cherry blossoms of Washington, D.C., she now heads to work amid the droning cicadas and ginkgo trees that surround Japan's parliament, known as the Diet.

Nakabayashi meets with a constituent. Courtesy Mieko Nakabayashi

There, her trademark light blue jackets stand out amid a sea of dark-suited male lawmakers. She's known as a budget hawk and an advocate for openness.

"During this kind of era, you have to really involve people," she says. "You cannot hide. People have to be involved and convinced."

She attributes those convictions to her time living and working in the United States, including two and a half years earning her master's degree in political science at WSU. To many Japanese, politics is a thing best kept at arm's length, with public spending decisions left largely to lawmakers and bureaucrats.

"People just take it for granted and feel it's natural," says Nakabayashi. "It's kind of sad, I think."

In a diverse career, one key consistency has been her love of public policy. That's what she was covering in the late 1980s as a TV reporter fresh out of college in Japan. She interviewed company leaders for an economic policy program.

"I started to realize that I didn't know much," says Nakabayashi. "And I thought I should learn language seriously and see the world seriously."

» tracking

She was accepted into a WSU master's degree program. After a three-day drive from the home of friends in Los Angeles, she nervously motored into Pullman late at night. Her first impression, after Tokyo and L.A.: She couldn't believe how dark it was.

The next morning, she was stunned at the size of the WSU campus and the beauty of the wind rippling through Palouse wheat fields.

Nakabayashi was also surprised at the accessibility of the professors, who'd sometimes host discussion groups in their homes.

"I never felt so close to professors in Japan," she says.

An internship at a Washington, D.C., law firm led to a Senate job as a Republican budget committee staffer. Wading into the nitty-gritty of policy-making, Nakabayashi felt a familiar feeling.

"After I'd worked one year, I really started to realize that I knew nothing. Again," she says. So she stayed for a decade, finally returning to Japan to marry her husband, a Japanese surgeon she'd met at a friend's party. Leaving the United States, she cried.

She was teaching at her undergraduate alma mater when a Japanese lawmaker recruited her to run for the House of Representatives.

around in sound trucks, repeating their names over and over through blaring loudspeakers. Wearing a white sash, Nakabayashi also worked the suburban subway platforms, building name recognition with harried commuters.



Meiko Nakabayashi's campaign poster

She won. In a stunning upset, her party also wrested control of parliament from the Liberal Democratic Party, which had long dominated Japanese postwar politics.

Nakabayashi took office last year. She is believed to be the first WSU alumnus ever elected to Japan's parliament.

"Mieko has been able to exercise subtle but substantial influence," says Peter Ennis, a columnist for *Weekly Toyo Keizai*, a Japanese business magazine. "She has practical policy experience and practical legislative experience, something that many of her DPJ colleagues lack."

She was quickly appointed to the budget committee, where lawmakers have their work cut out for them. Burdened with massive national debt, Japan is struggling to prop up its social security and public health care systems amid sharply declining birth rates and general insecurity about the nation's future. Long the world's second-largest economy, Japan is being eclipsed by a fast-growing China.

More than ever, Nakabayashi argues, Japanese taxpayers must get involved in their nation's spending decisions. After all, they're the ones paying the bill.

That's particularly true of women, she believes. Japan's parliament has a low percentage—about 11 percent—of female members. Nakabayashi says that women—many of whom

Michael McCaskey ('78 Ag. Mech.) is vice president/dean of academic affairs at Herkimer County Community College in New York. McCaskey has 23 years as an educator and administrator, recently serving as dean for the School of Agriculture and Natural Resources at SUNY College of Agriculture and Technology at Cobleskill.

1980s

Paul Ishii ('81 Bus. Admin.) has been appointed to the Washington Higher Education Coordinating Board. He is also on the board of directors of InvestED, a chair of the Washington Lodging Association, and a member of the board of the Downtown Seattle Association.

Dori Familant ('82 Hotel and Rest. Admin.) is general manager for Hilton in Crystal City, Virginia. He began his career at Hyatt Hotels and Resorts and has nearly 30 years in the hospitality industry in locations around the United States.

Ruth Monahan ('82 For. and Nat. Res.) is Alaska Region Deputy Regional Forester. She has been involved with Forest Service for 30 years and has held various positions including district ranger for Idaho's Payette National Forest.

Ruth Medsker ('84 Ed.) is interim principal at West Seattle High School. For five years she was education director for Seattle Public Schools and supervised middle and K-8 schools. She has received several awards including the Alliance for Education's Thomas B. Foster Award for Excellence for outstanding leadership.

Michael Fleetwood ('87 Lib. Arts), United States Army Colonel, graduated from the U.S. Army War College at Carlisle Barracks, Carlisle, Pennsylvania and earned a master's degree in strategic studies. Fleetwood works as a repairman of aircraft power plants and has 23 years of military service. He also completed a master's degree in 1995 from Troy State University.

Kristin Bail ('88 Geol.) is deputy forest supervisor for the Coconino National Forest near Flagstaff, Arizona. She has worked with federal land management agencies for 25 years. In 2006, Bail went to Washington, D.C., to serve in the BLM's Business and Fiscal Resources section.

Rich Cho ('89 Mech. Engr.) is general manager for the Portland Trail Blazers. In 1995, Cho began interning with the SuperSonics while earning a law degree from Pepperdine University. He became the part-time consultant for the Sonics in 1997 and was promoted to assistant general manager in 2000. Prior to working for the NBA, Cho also worked as an engineer at Boeing.

1990s

Robert A. Purvis ('92 MS Hort.) has been testing and evaluating apricot varieties to see how they perform under Idaho conditions and developing a private germplasm repository of various types of apricots and plums. He has also been working to create later-blooming Canadian and U.S. apricots and plums that taste good and are able to endure cold weather.

Yong Wang ('92 MS Chem. Engr., '93 PhD Chem. Engr.) is a fellow of the American Chemical Society. He is an associate director of the Institute for Interfacial Catalysis at Pacific Northwest National Laboratory and a Voiland Distinguished Professor at WSU. He is also a Fellow of the American Association for the Advancement of Science. He co-authored more than 130 peer reviewed publications, edited six books and topic journal issues, and is an inventor/co-inventor on more than 100 patents.

control the family finances—are a largely untapped political asset at a time when the nation's books are increasingly hard to balance.

"I think Japan is now at a phase where they cannot avoid asking the people how much of a burden they want to shoulder, or what services to cut," she says.

The resulting decisions, she says, will shape the country's future for years to come.

"National defense, international relations, education, they're all prioritized by the budget," she says. "Budget-making is nation-building."

Joe Fugere '84

Feeding his interests

by Hannelore Sudermann :: Joe Fugere opened Tutta Bella pizzeria in Columbia City in 2004. A veteran of several Northwest-based companies, including Starbucks and Taco Time, he decided it was

time to go into business for himself and produce true traditional Naples-style pizza.

Today the south Seattle restaurant is filled with blond wood tables and bears sweet touches like parchment paper pendant lights and brick walls. Though it's not yet 10 a.m., an applewood fire is burning in the oven and trays of sliced mushrooms are waiting to be roasted.

Fugere comes in and orders a cappuccino over the heads of two regulars at the coffee bar. As he walks toward the kitchen, he explains that his is both slow food and fast food. In keeping with the slow food movement, the pizzeria protects a food tradition by using fresh and simple ingredients, including flour and tomatoes from Italy. It's fast because "All of our toppings are usually pre-cooked or cured to perfection," he says. "Then it only takes 90 seconds to cook a pizza."

It's pizza done the original way. So original, that judges from Naples, the birthplace of pizza, have examined the business from ingredients to oven and awarded an *Associazione Verace Pizza Napoletana* (VPN) certification. "We're very proud of that. We were number 198 in the world, but number 10 in the U.S.," he says. "And we were the first in the Northwest."



Joe Fugere. Photo Matt Hagen

The road to being a restaurateur took Fugere through some landmark Northwest companies. After graduating from WSU, he moved to Southern California and worked for Westin Hotels. A few years later, he came back to Washington to journey into the executive ranks at Taco Time. Fugere was one of the few non-family members there. Then he went to Starbucks. "It was like getting a Harvard MBA," he says. The executives were from some of the country's biggest, most successful companies including Clorox, Pepsi, Nike, and McDonalds.

'Tis the Season

We have something for everyone on your list.

WASHINGTON STATE CONNECTIONS

Alumni Association Members SAVE 10%
(excluding wine, cheese, and sale items)

Westlake Center, Street Level, 400 Pine Street, Downtown Seattle
(206) 957-9090 Monday-Saturday 10 a.m.-8 p.m., Sunday 11 a.m.-6 p.m.

washingtonstateconnections.com

Nakabayashi in Japan's House of Representatives.

"My mother really hates politicians," she says, laughing. "She didn't like it."

But when a lawmaker from the Yokohama suburbs decided to retire, Nakabayashi agreed to run.

Campaigning in Japan is sharply different from what American voters are used to. Rather than relying heavily on broadcast ads, campaigns plaster posters of Japanese candidates' faces throughout neighborhoods. The candidates ride



Joe Fugere meets President Obama in Seattle

But after decades in the food industry, he was ready for change. He thought he would venture into another of his loves, maybe architecture or nonprofit work. A life coach helped him refocus. “She said, ‘You can still enjoy architecture and doing nonprofit work, but your background is in restaurants and you’re really good at it,’” he says. “So I decided: pizza. Most Americans eat it and it ties with my Italian heritage.”

Fugere found a Naples-based association that certified pizza-makers. He traveled to Italy and spent several weeks working in century-old

pizzerias, learning to be a traditional *pizzaiolo*. Then he returned to Seattle to open his first restaurant near the Beacon Hill neighborhood where he grew up. Instead of advertising, he simply posted his business plan in his front window. “People were stopping and reading it,” he says incredulously.

On January 2, 2004, he opened his doors at 5 p.m. and “There was a line all the way down to the corner.” He made nearly every pizza himself. The dough had to be mixed in advance and allowed to rise over days. He had prepared enough to supply pizzas for 200. “But by 7 o’clock I had run out,” he says. When he stood on a table to apologize to the crowd, to his surprise they cheered.

In the following months, he reached out to the neighborhood. “I feel it’s important to tell people that from the day they start their business to start giving back,” he says. “And giving doesn’t always mean checks.” One of the first things he did was offer space to a local Alcoholics Anonymous meeting. He also donated coffee, pizza, and pastries to local volunteer groups.

Fugere also joined the Washington Restaurant Association and joined the government affairs committee. “I thought it would push me a bit,”

Terry Goldman (’94 Hotel Rest. Admin.) is president and CEO of the Washington County Visitors Association in Oregon. He is also commissioner on the Metro Exposition and Recreation Commission. He received the Spring Hill Suites’ “General Manager of the Year award in 2006, the Oregon Lodging Association’s “Innkeeper of the Year” award in 2008, and the J. Willard Marriott Award of Excellence in 2010.

Jennifer Forsberg (’97 Bus. Admin.) is finance director for the city of Washougal. She worked at the Washington State Auditor’s Office for nine years, first as an auditor and supervisor at the state department’s office in Vancouver, and then as fraud manager for the state department.

Jamie Kern Lima (’99 Bus.) is founder and CEO of IT Cosmetics. The former TV news anchor worked with Brazilian plastic surgeons to develop the business. She and her line of cosmetics have been a part of more than 200 media publications and television features, including the TODAY Show and Rachael Ray. IT Cosmetics is the recipient of the Redbook Magazine MVP Award, the 2009 ICMAD Cosmetic Innovator of the Year Award, and the 2010 Total Beauty award.

Jennifer Mensik (’99 Nursing) was elected director-at-large on The American Nurses Association’s board of directors. Mensik currently lives in Chandler, Arizona, and is a member and president of the Arizona Nurses Association, as well as the system director of clinical practice and research with Banner Health in Phoenix.

2000s

Jason Koontz (’00 PhD Biol.) is associate professor at Augustana College. Koontz is currently researching the hill prairie larkspur, which is known to be located in only three western Illinois counties.

Robert Tick (’00 MBA) is CFO at Nutrastar International Inc., which produces and distributes Chinese Golden Grass. Previously, Tick was CFO and Corporate Secretary for ANDA Networks Inc., a telecom networking equipment supplier in North America and China. He has also worked as corporate controller for Zambeel Inc., is a CPA, and is fluent in Chinese.

Holly (Wysaske) Jones (’02 Engl.) welcomed her son, Ricker William, on May 15, 2010. He joins his older brother Victor and a family of Cougs.

Gail Schaar (’02 Comm./Ad.) is email marketing coordinator at Microsoft/Pentad Solutions in Bellevue. Her career has focused on marketing and event planning. Before accepting her new job, Schaar was a part of the Global Database Marketing team at Expedia.

Jeana Simpson (’02 Ed.) teaches in the Nine Mile Falls School District. She is the fourth recipient of the 2010 Vitt and Mary Ferrucci Distinguished Educator Award in Math, Science, and Technology Education. The WSU Department of Education award includes a paid summer sabbatical to develop a science teaching workshop for K-8 teachers in her district.

Anna Welsh (’03 Bus. Admin.) is married to **Jon** (’02 Polit. Sci.) and they have three children, Alex, Jack, and Ellie. The couple owns Manzanita Fresh Foods in Manzanita, Oregon.

Amanda Van Lanen (’04 MA and ’09 PhD U.S. and Pub. Hist.) is assistant professor of history at Misericordia University in Dallas, Pennsylvania, for the 2010-2011 academic year. Before accepting this position, Van Lanen worked as an instructor and teaching assistant at WSU.

Ashley Kmiecik (’05 Lib. Arts) was chosen by the USA Women’s National Rugby Team to start in the 2010 Women’s Rugby World Cup in England last August. She is a fullback with the USA Women

Eagles. Kmiecik played and coached rugby at WSU and then moved to Redmond where she played for the Emerald City Mudhens.

Rachel Hamar (’06 Lib. Arts, Hist.) received her law degree from the University of Washington School of Law.

Joshua P. Berning (’08 PhD Econ.) is assistant professor at the University of Connecticut in the Food Marketing Policy Center.

Derrick Low (’08 Gen. Studies) has signed a one-year contract with the Israeli Basketball Super League. Low was a four-year starter at WSU from 2004 to 2008. He has played professionally in France and Australia, and last season played for BC Siauliai in Lithuania where he was named All-Lithuanian LKL Import Player of the Year by Eurobasket.com.

Neil Wilson (’08 Phil.) received the Sam Wilkins Criminal Law Award from Mississippi College School of Law. He was part of the MC Law Team that defeated the University of Mississippi Law School in the Seventh Annual Ogletree Deakins Mississippi Moot Court Championship last April.

Emily Easley (’09 Pub. Rel.) is an account coordinator at Desautel Hege Communications in Spokane. She is also a member of the Spokane Society of Young Professionals.

Sierra Eckman (’09 Bus. Admin.) is a CPA with Opsahl, Dawson & Company in Vancouver, Washington.

Trudy Freese (’09 Engl.) is store manager at The Bookie of WSU Tri-Cities. While a student, she was involved with the Associated Students of WSU Tri-Cities, was a tutor in the Writing Center, and a secretary of the Multicultural Club. After graduating, Freese worked with the American Scholar Theological Society as a public relations advisor.

Brady Prim (’09 Bus.) works for the U.S. Embassy in China and volunteers for the Washington State University Alumni Association. Previously, he was chair of the Students Book Corporation and a winner of the 2009 Big Ten Senior Award in Community Service and the 2009 President’s Award.

IN MEMORIAM

1930s

Opal Cora Wetherell (’31 Home Ec.), 102, August 1, 2010, Spokane.

Dorothy Littlemore Davis (’32 Spanish), 99, March 14, 2010, Fullerton, California.

Edward W. Abrams (’33 Zool.), 100, September 11, 2010, Spokane.

Carolyn Backstrom (’34 Pharm.), 98, August 25, 2010, Shelton.

Helen Louise Jensen Brondt (’37 Home Ec.), 95, December 7, 2009, Des Moines.

Mackenzie Goold (’38 Ed.), 95, July 1, 2010, Camas, Oregon.

Robert E. Daily (’39 Ag. Eng.), 93, Palouse.

Kenneth Everett Rydbom (’39 Voc. Ag. and Sci.), 94, August 4, 2010, Spokane.

Donald E. Whalen (’39 Bus. Admin.), 92, August 16, 2010, Petersburg, Virginia.

1940s

Donald Jasper (’40 Vet. Sci., ’42 DVM), 91, July 25, 2010, Davis, California.

Bernice Voget (’40 Home Ec.), 91, July 20, 2010, Puyallup.

Jacob Bigeleisen (’41 Sci.), 91, August 7, 2010, Arlington, Virginia.

Floyd M. Sandell (’41 Ag.), 91, January 29, 2010, Bellingham.

» tracking

Mary Kaufman-Cranney ’78

Call of the wild

by *Hannelore Sudermann* :: Last summer Mary Kaufman-Cranney culled a batch of black dresses from her closet and replaced them with hiking boots and trail shoes. Having left her job with the Seattle Opera, where she was director of development, she has less use for the dresses. But now she requires the shoes for her new role at The Nature Conservancy leading fundraising for the nonprofit’s Washington State chapter.

Instead of organizing galas, she’s trekking across mudflats and into rainforests to learn the details of preserving our state’s natural resources.

“I’m really enjoying this work,” she says. “Northwesterners are so passionate about their natural resources.”

Kaufman-Cranney’s office is in the Conservancy’s Seattle headquarters in the historic Alaska Trade Building. Her room is a bit of a terrarium with glass windows on three sides. One looks out to her staff of eight, one looks to the

he says. An issue popped up about sidewalk cafés. “It took months. It cost thousands of dollars. And you had to work with four different agencies,” says Fugere, noting that the complications countered the mayor’s own vision of making the city’s core areas more like Europe’s. “I met with all the city council members. I met with the mayor,” he says. “I even spoke at a city council meeting.” In 2008, the city council simplified the permitting process.

Fugere’s work on behalf of restaurants and his role in the community have brought him national attention. Tutta Bella has won local, regional, and national awards, and last August was named pizzeria of the year by *Pizza Today*. That same month, Fugere met with President Obama when he was in Seattle and in September went to Washington, D.C., for the signing of the Small Business Jobs Act.

The awards, even getting to represent Seattle’s small businesses to the president, are byproducts of tying in with your community, says Fugere. “It’s about being generous with your time, your money, and your people,” he says. “It’s participating from the very beginning. From the day you hang your sign on the building, opportunities will come to you.”

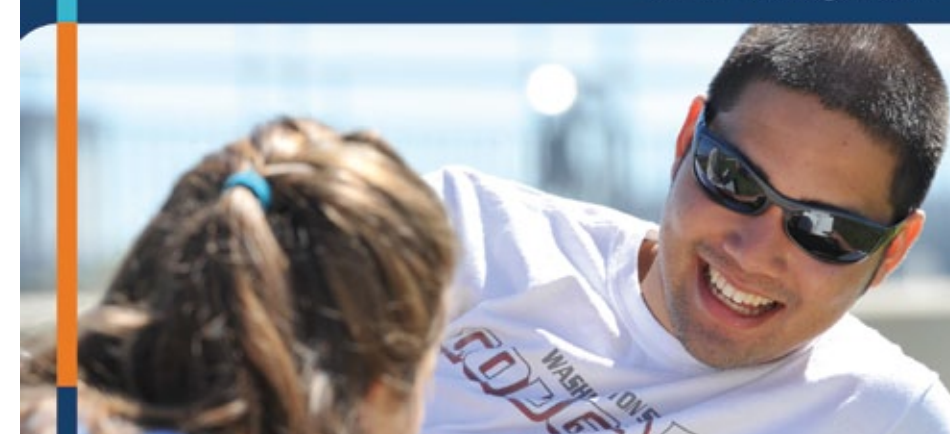
Get an Early Start

summer.wsu.edu/advantage

Just for Incoming Freshmen
June 27–July 29

Summer Advantage prepared me for fall semester. My Summer Advantage classes were small and personable, and the instructors were clear in their directions and very helpful. After four weeks, I now have seven credit hours of A’s to start my college career.”

—Summer Advantage Student



reception area, and one looks over the Pike Place Market toward Elliott Bay. On the rare wall space she has hung a poster from the Seattle Opera's production of *The Ring*, a souvenir from her two years fundraising in the city's arts and culture scene.

This job, she finds, is altogether different. She's not helping realize one vision, like a home for the opera, she's working toward many: restoring Port Susan Bay near Everett, removing invasive plants from the McCartney Creek Preserve near Wenatchee, and cleaning up Puget Sound.

Kaufman-Cranney formed early connections with nature and with her community. Her childhood memories include exploring around her family's cabin on a lake near Colville. And growing up in western Washington, she often tagged along with her mother who taught parks department classes in Auburn.

She came to her career, though, as a college freshman. Late one afternoon in calculus class, while her classmates talked about staying up all night thinking of theorems, she looked out the window to see people playing Frisbee in the sun. She enjoyed the math, she says, but she really wanted to be outside where the action was.

Her PE teacher Jane Ericson pushed her to the choice. "She said, 'This is a wonderful life in the recreation field,'" says Kaufman-Cranney.



Mary Kaufman-Cranney in one of her few remaining black dresses. Photo Matt Hagen

And she offered "a brilliant piece of advice." Ericson told her to major in recreation and park administration but take all the necessary classes to have a business minor. That recreation degree got Kaufman-Cranney in the door at the YMCA, but it was the business background that helped her move quickly into management.

After graduating from WSU in 1978, she started as a YMCA childcare director in Shoreline

and before long became a full-time manager. That job led later to assistant vice president of community work. From there, "it's a short leap," to philanthropy, she says. She next served as YMCA of Seattle's senior vice president of financial development. "What I had really learned in my community experience is that you can't reach young people if you don't have the resources to do it." So her job involved sharing the needs and the stories of the families the YMCA was helping.

Along the way she acquired a husband, Tom, and two sons. Two years ago, she moved on to the Seattle Opera, interested in finding a new Northwest-based challenge.

While the opera and its \$32 million fundraising campaign was good preparation for her new role, the three decades at the YMCA offered the grounding for what she's doing now, she says. One of her favorite parts of that job was supporting outdoor learning experiences for children like Camp Colman in south Puget Sound and Camp Orkila in the San Juan Islands. "There are special things that happen at camps," she says. "I'm drawn to creating and preserving those places."

And, she says, that's not much different from the work she sees for herself at The Nature Conservancy. This year, the Conservancy celebrates 50 years in Washington. The chapter was founded by biologist Arthur Kruckeberg, ecologist Victor Scheffer, and others concerned with protecting endangered habitat around the state. Over the years the organization has evolved to work with scientists, communities, and landowners to identify, protect, and restore lands in every corner of Washington.

In the Skagit Delta, for example, the Conservancy is working with farmers to flood their fields and create temporary wetlands for the benefit of waterfowl. Students and faculty from WSU's Mount Vernon research station have been examining the effects of the flooding on potato pathogens once the land is returned to farming. "There's this perception that we are about just protecting land," says Kaufman-Cranney. "But we're really about working with people." In Skagit Valley, it's working with farmers to explore new methods for supporting wildlife. In Willapa Bay, it means coordinating efforts with local government and landowners to combat the invasive *Spartina*.

While the agency and its volunteers have helped protect more than a half million acres in Washington, they have also helped with conservation in Chile, Australia, and British Columbia, notes Kaufman-Cranney. "It's good to get back to an organization that has a strong Northwest presence and a world-wide vision." »

Margaret Barbee ('42 Gen. Stud.), 89, July 15, 2010, Spokane.
Ellen Jane (Warwick) Jones x'42, 89, September 10, 2010.
John H. Ortnier ('42 Hort.), 91, September 2, 2010, Spokane.
Richard C. Greiner ('43 Elect. Engr.), 91, August 31, 2009, Electric City.
John D. Rockie ('43 Sci., '44 Geol.), 87, June 2009, Gig Harbor.
Barbara E. Huff x'44, 89, August 22, 2010, Spokane.
C. Robert Lagergren ('44 Phys., MS '49), 87, May 11, 2010, Richland.
Maryrose Casseday Nelson ('44 Engl.), 88, August 2, 2010, Boise, Idaho.
Lorna Jayne Sears ('46 Pharm.), 86, September 2, 2010, Spokane.
Anita Busek ('49 Speech and Comm.), 82, August 10, 2010, SeaTac.
Wilfred E. Fiene ('49 Soc.), 87, June 13, 2010, Lynwood.
Leslie Bernard Fitzpatrick ('49 Speech Comm.), 86, August 22, 2010, Edmonds.
Millard A. Lord ('49 Ind. Tech., Ed.), 94, July 10, 2010, Kenmore.
Robert "Pete" Prenguber ('49 Mech. Engr.), 87, August 21, 2010, Spokane.
Wade W. Schroeder ('49 Ag., '50 Ed.), 86, April 30, 2010, Los Altos Hills, California.
1950s
John William Elliot ('50 Ag. Ed., '69 MA Ag. Econ.), 85, June 4, 2010, Spokane.
Maynard Jones ('50 Ag.), 87, January 11, 2010, Yakima.
Patricia Ruth Blaney Lawson ('50 Vet Med.), 81, July 30, 2010, Redmond.
Harley H. Tuck ('50 Ag., '54 Ag. Ed.), 85, June 29, 2010, Spokane.
M. Skip Breshears ('51 Ag. Engr.), 77, June 5, 2010, Newberg, Oregon.
Earl Moore ('51 DVM), 88, July 18, 2010, Seattle.
Donald Horace Wride ('51 Fine Arts), 83, September 2, 2010, Garfield.
Victor W. (Bill) Korf ('53 Civ. Engr.), 77, June 9, 2009.
Madison Eldon Oliver ('53 Mech. Engr.), 85, August 17, 2010, Woodburn, Oregon.
Philip T. Gardner ('54 Bus.), 78, July 17, 2010, Mercer Island.
Richard E. Carstensen ('55 Ag.), 77, September 2, 2010, Spokane.
Daniel E. McGreevy ('55 Ag.), 76, June 24, 2010, Pullman.
Kenneth M. Hall ('56 Phys.), November 6, 2009.
Duane Roy Bade ('57 Mech. Engr.), 75, June 19, 2010.
Burl W. Davies ('57, Ag.), 75, September 9, 2010, Port Townsend.
Druery E. Clark ('58, Arch. Engr.), 75, March 23, 2010, Sun Lakes, Arizona.
1960s
Bill Brownson ('60 Math), 72, June 18, 2010, Santa Monica, California.
David P. Dickson ('61 An. Sci.), 71, July 9, 2010, Madison, Wisconsin.
Gene C. Frank ('61 Med), 81, February 15, 2010.
Dale E. Bowman ('62 MA Agron.), 76, June 27, 2010, Indian Valley, Virginia.
Scott G. Perry ('62 Speech and Hearing Sci.), 70, July 17, 2010, Renton.

Angelo L. "Angie" Bomben ('65 Engr. '67 MA Civ. Engr.), 84, July 29, 2010, Spokane.
John C. Brattain ('67 Ed., '75 MA Ed. Admin.), 66, Jan 2, 2010, Olympia.
1970s
Elizabeth K. Mercer ('71 Bus.), 61, July 27, 2010, Kennewick.
Phyllis Kay Suksdorf ('71 Ed.), 65, June 18, 2010, Pasco.
Lynn R. Votaw ('71 Fine Arts), 68, July 28, 2010.
Margaret May "Peggy" Elder ('72 PhD Ed.), 71, July 19, 2010, Seattle.
Ralph Stewart ('73 For. and Resource Sci.), 73, July 26, 2010, Enterprise, Oregon.
Elizabeth "Betsy" Diane Cain ('74 Rec.), 57, August 8, 2010, Spokane.
Robert Dale Haug ('75 Hist., TC), 61, March 20, 2010, Kennewick.
James Alton Pardue ('76 Engr. and Arch., BAR), January 27, 2010, Wallula.
Kevin John Anderson ('77 Bio., '81 MS Zoo.), 64, June 15, 2010, Gainesville, Florida.
1980s
Diane Bailey x'80, 49, August 8, 2010, Spokane.
James Russell "Russ" Duckworth ('80 Agron.), 55, July 19, 2010, Sedro Wooley.
Robert "Bob" D. Zimmerman ('80 Hort.), 55, June 23, 2010, Burlington.
Richard Scott Taylor ('84 Gen. Studies, Soc. Sci.), 50, July 29, 2010, Seattle.
Maria Brown Carter ('87 Bus.), 46, June 9, 2010, Kirkland.
1990s
Michael Paul Hickman ('94 Ed.), 39, July 6, 2010, Baranof Hot Springs, Alaska.
Alexandra Curcio ('95 Pharm.), 42, June 13, 2010, Florida.
Patrice Lynn Anderson ('97 Nurs.), 50, June 15, 2010, Grandview.
Faculty & Staff
Kathleen Gemberling Adkison, 93, retired WSU Spokane staff, August 3, 2010, Spokane.
Arthur Cridland, 74, retired staff, June 30, 2010, Pullman.
George Allen Faler, 86, retired Farm Service Department employee, August 12, 2010, Pullman.
Lillian Faler, 86, retired staff, July 7, 2010, Pullman.
Oscar Garcia, 59, plant technician in Prosser, September 3, 2010.
Dallas Groseclose, 70, retired staff, July 16, 2010.
Al Harrington, 92, retired ag. economics professor, July 25, 2010, Pullman.
Marilyn L. Hirschfeld, 74, former publications staff, secretary to Glenn Terrell, October 17, 2009, Bremerton.
Stanley Mildren, 74, retired University Publishing employee, September 1, 2010, Pullman.
Juanita Nelson, 77, former staff, August 10, 2010, Lewiston, Idaho.
Magdalena Perez, 69, retired staff, July 4, 2010, Yakima.
Denise Pressnall, 51, University Publishing production manager, August 27, 2010, Moscow, Idaho.
Kathleen Russell, 59, staff, July 16, 2010, Pullman.
William Russell, 55, staff, July 16, 2010, Pullman.
Mildred B. Stout, 94, retired staff, September 5, 2010, Spokane.
Norma West, 81, retired staff, July 2, 2010.

WSU Alumni Association News

Honoring alumni and volunteers

This year, the WSU Alumni Association had tremendous support from its volunteers, especially those serving as president, members of the board of directors, chapter leaders, and Alliance representatives. In keeping with a tradition established in 1999, the WSUAA at its spring 2010 board meeting recognized eight outstanding alumni with Alumni Ambassador Awards.

As WSUAA president this past year, **GINA MEYERS '85** led the effort to approve new association bylaws. But her work as president is just one piece of the time and attention she's offered WSU over the years. The Bellevue resident has also found time in her busy schedule as a director of finance to serve on the WSUAA Board of Directors and to be King County Chapter president. Her efforts for WSU reach beyond the association; she also serves on the College of Business National Advisory Board, the WSU Foundation Board of Governors, and the Celebration of Washington Wine event planning committee.

Though he lives 800 miles from Pullman near Walnut Creek, California, **WAYNE STEFFEN '76** has found all kinds of ways to stay connected to WSU. During his three years as the Northern California Chapter President, he tripled the number of alumni events held around the Bay Area. He planned pre-game rallies for most Cougars sports team events, the Nor-Cal alumni golf tournament, wine tastings, and CAST student recruitment luncheons. A few of his more memorable activities included welcome receptions for incoming freshmen, and annual outings to performances of *Wicked* in San Francisco.

For the past two years **EVA NAVARIJO '04** has served as La Alianza Chapter President and helped recruit alumni of color who could mentor and engage with students—with the overriding goal of improving retention rates and ensuring a positive WSU education experience. Prior to her work with La Alianza, Eva served on the WSUAA Board of Directors for three years.

The other ambassadors included:

Benine McDonnell '74 who served three years as the South Central Washington Chapter president.

Joe Pitzer '90 who has had various one-year appointments as interim Palouse Chapter president.

Leslie Archer '98 who served three years as King County Chapter president and as a Board of Directors member.

Matt Eastman '03 who served three years as North Central Washington Chapter president.

Janeen Heath '07 who served three years as Washington, D.C., Chapter president.

In 1970, the WSUAA created the **Alumni Achievement Award** for those who have made significant contributions to their professions, their communities, the world, and WSU. Fewer than 500 alumni have received this honor. This year, the Alumni Association recognized the following people for the prestige they bring to their alma mater:

Rhoda L. Altom, '80, Construction Management

Steve W. Epperson, '76 & '77, Business Administration and Physical Education

H. Eugene Forrester, '51, Agriculture and Education

Robert D. Fukai, '72, Accounting and Business Administration

Thomas Graedel, '60, Chemical Engineering

Keith Lincoln, '61, Physical Education

Larry Nielson, '76, Psychology

Robert J. Palmquist, '80 & '82, Criminal Justice

John N. Terrey, '65, Education

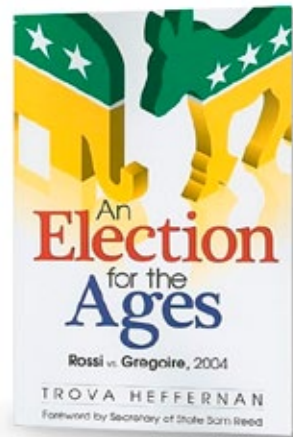
Edwin M. Tingstad, '88, History

Leslie V. Rowe, '70, Foreign Languages and Literature

Steven L. VanAusdle, '66 & '68, Agriculture

Joe P. Zeeben, '58 & '60, Mechanical Engineering

For a complete list of honorees and for more information about all WSUAA awards visit www.alumni.wsu.edu/awards or call 1-800-258-6978.



An Election for the Ages: Rossi vs. Gregoire, 2004 by **Trova Heffernan** WSU PRESS, 2010 :: *Review by Larry Clark '94* :: Every couple of years, we engage in the most basic of democratic activities: voting. Elections typically run smoothly and uneventfully. Sometimes they whip up a tornado of controversy, such as Washington's whisker-thin gubernatorial election in 2004, following on the heels of Bush vs. Gore in 2000, with Florida's hanging chads and legal wrangling.

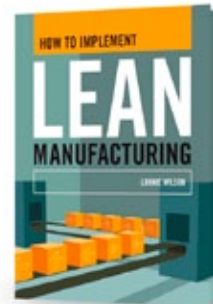
Dino Rossi and Chris Gregoire faced off to be Washington's next governor in 2004. After the ballot-counting deadline arrived in late November, merely 261 out of 2.8 million votes separated the candidates. *An Election for the Ages* takes up the story of the historic election and its aftermath in the courts, the media, the legislature, and the public forum.

Author Trova Heffernan details the back and forth of election results that swung from Gregoire to Rossi and back while political parties engaged in legal and PR battles and the state's citizens watched intently. Heffernan also delves into the role of Washington Secretary of State Sam Reed ('63 BA, '68 MA) as he was thrust into the limelight as the state's chief elections officer.

As criticism and praise came at him, Reed oversaw the application of election laws (and eventually reforms in the election system). Finally, after two recounts, courtroom drama, and a nail-biting seven months of controversy, the new governor, Gregoire, won by only 133 votes.

An Election for the Ages does an excellent job of capturing the closest governor's race in American history. Sidebars clearly explain the intricacies of election law, profile many characters in this historical drama, and tell the stories surrounding the election.

More than just a treat for political junkies, the book chronicles a defining moment in election history with compelling narrative and insight into voting and political battles. »



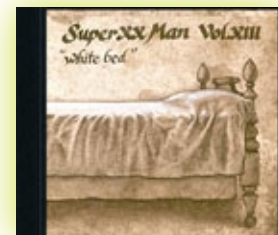
How to Implement Lean Manufacturing by **Lonnie Wilson** '69 MCGRAW-HILL, NEW YORK, 2010 :: *Review by Larry Clark '94* :: The rise of Toyota in the 1980s showed manufacturers a fundamental change in methods, called "Lean Manufacturing." After 20 years in management, Lonnie Wilson ('69, Chemical Engineering) now consults with companies on Lean Manufacturing methods.

Wilson's *How to Implement Lean Manufacturing* offers manufacturers an engineer's perspective on reducing waste and inefficiency through quantity control. He outlines the tools of Lean Manufacturing—particularly 100 percent efficiency and "Just In Time" delivery—bolstered by case studies.

Wilson readily acknowledges the difficulties in changing management culture to get the most out of Lean ideas, but his book gives manufacturing companies a well-defined map toward maximizing their operations' success.

To read about Lonnie Wilson, visit wsm.wsu.edu/mystory »

Vol. XIII: "White Bed" by **Super XX Man** 2010 :: *Review by Larry Clark '94* :: Mining Neil Young's "Harvest," Eels' "Electroshock Blues," and a wealth of indie rockers, Super XX Man creates an alloy of fine instrumentation and catchy pop melodies to memorialize lead singer Scott Garred's father on "White Bed."



Garred '95 sings lead vocals and plays several instruments, with drummer Adam Mack and bassist Daren Claymon, on deeply personal songs recounting Garred's dad's life and eventual battle with cancer. Reflecting on the pain of loss and the weight of memories from the elder Garred's life as a father and longtime Clarkston grocer, the tunes draw a compelling tribute with deceptively simple pop phrasing.

Garred's no stranger to independent rock. After singing and playing guitar in Austin-based pop trio Silver Scooter,

Garred moved to Portland, Oregon, in 2001, where he works as a music therapist and performs with his band Super XX Man.

Super XX Man, Garred's 15-year project beginning during his time at WSU, represents do-it-yourself, independent rock with 13 albums. Anyone interested in the band's catalog can now purchase the albums through digital online retailers. »



Mrs. Annathena Gilly Gully From Puddle Rumble Tilly Willy by **Chellis Swenson Jensen** '53. FAIRWOOD PRESS, INC. 2010 :: *Review by Earl Otis '51* :: Chellis Swenson Jensen has created a quirky lady backed by her pet parrot, Maurice. Tired of the neighborhood children's teasing, the lead character decides the solution is to change her name. Only when she recognizes that she, too, can laugh at her name and accept it does she decide to talk with the children.

The story is a collaboration amongst Chellis, her son, Paul Swenson (illustrator), and step-son Patrick Swenson (publisher).

Chellis first created the story for a granddaughter in 2007, and it grew. She started reading her manuscript to elementary school children 7-9 years old. "If they weren't going to like it," she says, "I wasn't going to waste time and money having it printed." The story immediately delighted hundreds of children, their teachers, and other adults.

Chellis and John Toth also recorded the story on a CD, bringing the characters to life. Both the book and the CD include a song, with words and music by Chellis. The song, "We Might Even Get To Be Friends," speaks directly to the children:

You may be really smart but what you're doing isn't fun

To call people names and then laugh is awf'ly dumb

Let's work out a truce between you and me

And then we might get to be friends.

For further fun and information, check out her website at chellisjensen.com.

Chellis Swenson '53 was president of the Alumni Association in 1980. Earl Otis '51 was a long-time information specialist with Cooperative Extension until his retirement in 1993. »



Mommy, are we French yet? by **Shawn Underwood** '79 FIVE-STAR MISADVENTURES, 2010 :: *Review by Angela Sams '11* :: Don't have enough money to travel to Europe? Sit down with this humorous memoir by Shawn Underwood and it's easy to take an imaginary journey to France with Shawn and her family.

Shawn and her husband Craig made the decision to live abroad in France for a year with their three children. Shawn's sister, Shannon, her husband Rick, and their three children joined the Underwoods in their experience abroad, and appear often in Shawn's accounts of day-to-day life in southern France.

Who knew that trying to accomplish simple tasks such as riding a bike, going to the grocery store, or baking a cake in a foreign country could be so challenging? With Craig's hand signals and Shawn's less-than-fluent language skills, the two families learn that life in France is very different than life in the United States. »

new & noteworthy

Hazards of the Game by **Norma Tadlock Johnson** '49 GALE-CENGAGE LEARNING, 2010 :: A cozy murder mystery set in the fictional Puget Sound town of Cedar Harbor. »

In Tune with America: Our History in Song by **George R. Nethercutt Jr.** '67 with **Tom M. McArthur** MARQUETTE BOOKS, SPOKANE, 2010 :: A history of our country, using songs from different eras and events as markers. »

Shaper of Seattle: Reginald Heber Thomson's Pacific Northwest by **William H. Wilson** WSU PRESS, 2009 :: The biography of Seattle's first visionary city engineer who arrived in a city with plank sidewalks and muddy streets and transformed it into a metropolis with potable water, a sewer system, and a municipal power plant. »



by Hannelore Sudermann :: One day in 1936 Betty Lee and her twin sister Peggy, about four years old, posed for their mother in the Washington State College shirts given to them by Carl Morrow, then Dean of Men at WSU.

Their parents, Don and Julia Lee, moved to Pullman in the 1930s and opened a restaurant, and later ran a small grocery on Maiden Lane. Morrow was a regular customer at their restaurant, which served “American” food, says Betty Lee. On occasion, he brought the family gifts, conferring on the girls the shirts, dolls, and balls.

Betty Lee graduated from WSU in 1954 with a degree in general studies. Her sister Peggy also graduated from WSU. They went on to have careers at the University, Betty working in the Agronomy department and Peggy with Extension. Peggy died in 2008. Betty still lives in town.

Betty says her mother was always taking pictures of her twins—when she could find them. Life was a great adventure growing up in the shadow of a large university. “My sister and I used to go exploring on campus and sometimes we would get lost,” says Lee. Their roaming was to the consternation of their parents. “My mother would say, ‘If you see two Chinese girls wandering around town, please tell them to come home.’”



See photos and read more about Washington State College in 1936 at wsu.wsu.edu/ourstory.

With the flip of a switch...

From your lights to your coffeemaker to your television—for all the ways you use electricity—you know when you flip that switch, you will have reliable power.

Schweitzer Engineering Laboratories offers a complete range of solutions that improve how electric power is delivered. Our mission is simple—make electric power safer, more reliable, and more economical.

To experience SEL's world-class manufacturing, visit www.selinc.com/wsut1.



Learn more at www.selinc.com
info@selinc.com | +1.509.332.1890





{ Navigation tools }



COVER / BACK PAGE



ENLARGE QUADRANT



RETURN TO SPREAD VIEW



PREVIOUS / NEXT PAGE



TABLE OF CONTENTS
CLICK ON TITLES TO GO TO STORY



SCROLL PAGE
(IN ENLARGED VIEW)



WEB LINKS
URLS IN TEXT & ADS ALSO CLICKABLE



CLICK HERE TO EXIT
OR USE **ctrl/cmd-Q**