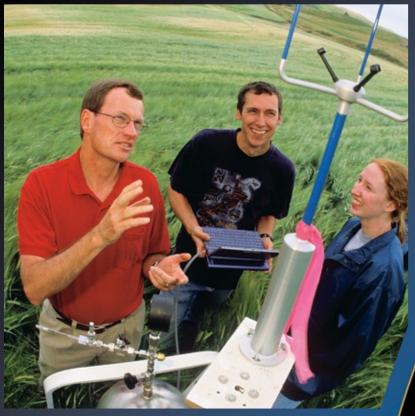


Also in this issue: Contagion! Emerging Diseases and Food Fights



breathing easier

Thanks to research conducted by Professor Brian Lamb and colleagues at the Laboratory for Atmospheric Research (LAR), millions of Pacific Northwest residents are breathing easier.

Dr. Lamb and his researchers created a regional air-quality forecast system that gathers data used to predict concentrations of ozone, particulate matter, and other pollutants in the air. Forecasters use the system to make air-quality alert decisions.

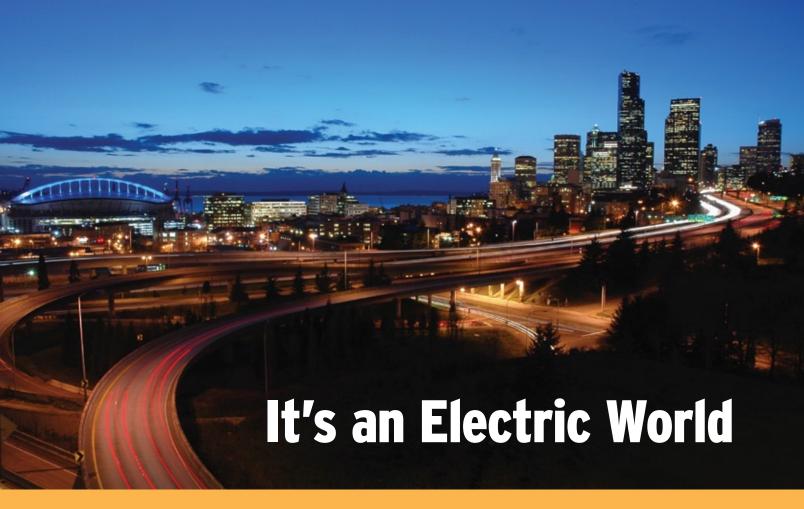
LAR researchers are also working with the Environmental Protection Agency to examine the impacts of global climate change on air quality.

Imagine a future in which:

- Health-care costs related to air pollution illnesses plummet
- Individuals live healthier and more productive lives
- A better-informed public is able to solve air pollution problems

Dr. Lamb is one of dozens of Washington State University researchers engaged in a daily quest to make the world a better place. Washington State University: because the world needs big ideas.





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Distribution

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features

24 It Happened at the World's Fair/ The Rockey Style

By Tim Steury

Shortly after Jay Rockey '49 arrived in Seattle to handle the public relations for the 1962 World's Fair, the Seattle Post-Intelligencer ran an editorial claiming it could not see how the fair could possibly make it. "Do you really know what you're doing?" Rockey's wife asked him. Turns out he did.

30 Contagion! **Emerging Diseases: Unraveling the Mystery**

By Cherie Winner

What makes some strains of pathogenic bugs nastier than others? Why do they emerge when and where they do? Are we more susceptible now than in the past, and if so, why? At least partial answers to these troubling questions may lie with snails and salamanders.

- WHAT ABOUT AVIAN FLU?
- WILDLIFE AT RISK

39 Food Fights

By Hannelore Sudermann

Four children died in the 1993 Jack in the Box E. coli outbreak. Attorney Bill Marler's client survived, but only after spending six months in the hospital. Marler sued and won a \$15.6 million settlement for Brianne Kiner. Even more significant, the work he produced for the case made him an expert not only on E. coli, but on the whole food production system.

• WHY WASHINGTON?



CONNECTING WASHINGTON STATE UNIVERSITY, THE STATE, AND THE WORLD



Today fears of an epidemic are on the rise, fueled by reports of exotic infections and antibiotic-resistant "super bugs." Figuring out where the next deadly disease will come from—and how to stop it—is not a simple task.

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Washington State

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Editor, Tim Steury
Assistant Editor/Senior Writer, Hannelore Sudermann
Managing Editor, George Bedirian
Art Director, John Paxson
Photographers, Shelly Hanks '88, Robert Hubner
Science Writer, Cherie Winner

Contributors

WRITERS: Eric Apalategui, Andrew Fenstermaker '06, Annette Ticknor '07

PHOTOGRAPHERS: Bruce Andre, David Goulding, Matt Hagen, Henry Moore Jr., Stephen Nowers

ILLUSTRATORS: DZGNBIO, Russell Kightley

President, Washington State University, Elson S. Floyd Associate Vice President, University Relations, Barbara B. Petura Executive Director, Alumni Relations and Washington State University Alumni Association, Tim Pavish '80

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

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FIRST WORDS

PULLMAN FRESHMEN THIS SUMMER are reading Gina Kolata's Flu: The Story of the Great Influenza Pandemic of 1918 and the Search for the Virus that Caused It, the first book in the newly instituted Common Reading project. The book is both absorbing and, well, unnerving. It is not a feel-good read. Regardless, it is intended to stimulate discussion, both of the informal bull-session type and in the classroom, of topics ranging from virology to ethics. It will be most interesting to observe how those who read it react to the first sneezes of this year's flu season.

Given that much has yet to be learned regarding infectious disease, one hopes that the book inspires many of its readers to become microbiologists or virologists. One hopes too that, at the very least, the book implants in every freshman's mind, regardless of eventual major, the promise of the scientific process and how our current medical and biological thinking is driven by Darwinian evolution, a fact to which Carol Anelli alludes in "Letters." One hopes, finally, that it may do its modest part in countering a disturbing trend in this country toward willing suspension of rational thought and a return to prescientific thinking.

Our knowledge of infectious disease has grown immensely since the 1918 pandemic. We now understand the nature of DNA and RNA, for example. But curiously, regarding the specific incident, interest in the outbreak was tepid at best for the longest time. Awareness of it was stimulated by the work of historian Alfred Crosby, who was once at WSU and has recently published his own account, *America's Forgotten Pandemic: The Influenza of 1918*.

The quest continues, as our article, "Contagion," illustrates. Author Cherie Winner shows how widely scientists have ranged to find answers to questions in the fields of epidemiology and the ecology of emerging disease.

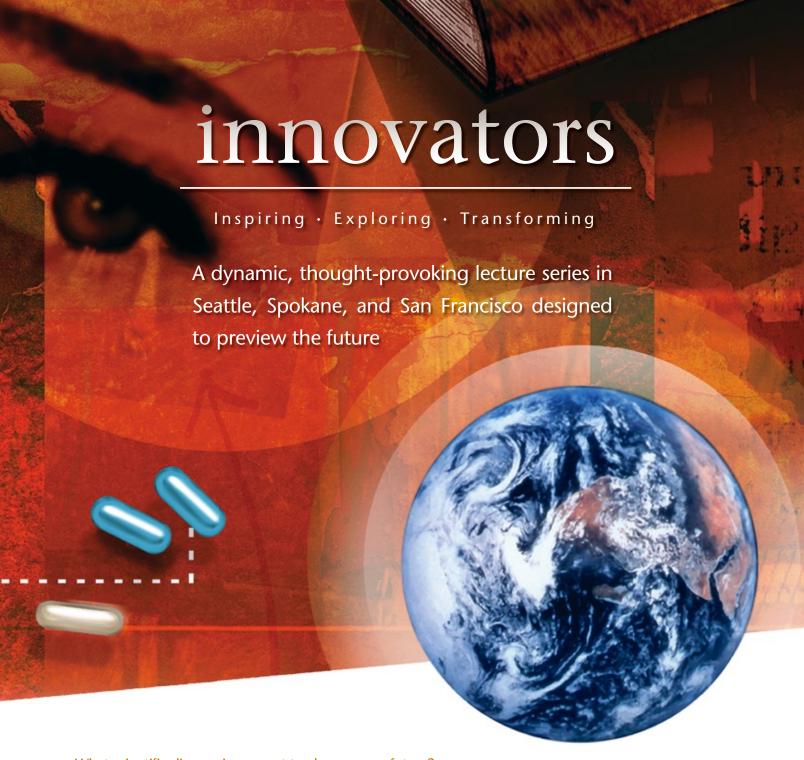
The notion of a group all reading and thinking about a particular book is appealing, which leads me to think maybe we, the *WSM* cognoscenti, might try. I'm not sure that 150,000 readers are about to agree easily on a common reading of anything, but what the heck. Send me (wsm@wsu.edu) your recommendation of what, besides this magazine, we should be reading, and why.

Perhaps it should be a book on manners, suggests T.O. Nash III '81 of Seattle. He writes to complain of another, social, illness—incivility—that has infected even normally civil Cougars. Nash was driving in heavy traffic near the S curves on 405 between Bellevue and Renton, when he was rudely engaged by a driver whose license plate cover revealed, as he sped off, that he was also a Coug. *Noblesse oblige*, as they say, or, loosely, those of great privilege should show equal politeness.

-Tim Steury, Editor

CORRECTIONS

SEVERAL OF YOU HAVE WRITTEN to point out that the photograph accompanying my article last issue on rhubarb was actually chard. Besides being deeply embarrassed, I hope none of you tried making pie using the photograph's suggestion. Also, Dick Fry points out that in the story about Bobo Brayton, it was Stanford rather than Cal that the Cougars beat in the 1965 championship. Finally, Bill Bayley of Winslow writes that Susan Pavel's work can be seen at the Suquamish Clearwater Casino Resort in Suquamish, not Poulsbo. Also, referring to the hops story, he notes that Thomas Kemper was actually on Bainbridge Island and later moved to Poulsbo when the company was denied a zoning variance to expand. Sadly, writes Bayley, they are no longer even there.



What scientific discoveries are apt to change your future?

Whether it's solving air-quality issues due to global warming, improving food, water, and medical conditions worldwide, or teasing out flavors and aromas in a glass of wine, Washington State University research advances our quality of life.

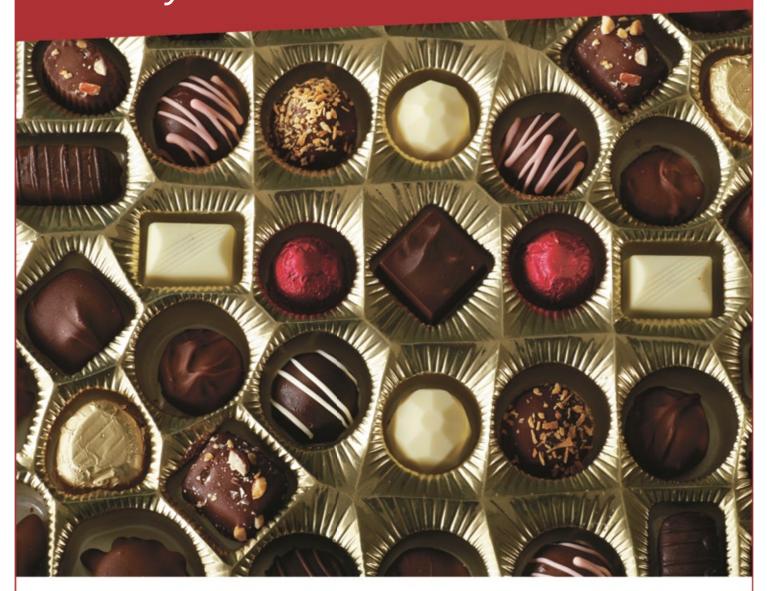
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Evolution marches on

PEDERSON ET AL. (Washington State Magazine, Summer 2007) are appalled at my quoted statement that scientists who design human drugs take advantage of the genetic history that we share with other animals. They further state that by this I am implying that biologists did not exist prior to Darwin. I implied no such thing. Indeed, the history of biology (which I teach) informs us that there were many biologists (i.e., people who study living organisms) before Darwin; Aristotle serves as a fine example.

Darwin emphasized descent with modification. If readers doubt the veracity of that phrase or its useful implications, I urge them to peruse the November 2006 cover article of the Howard Hughes Medical Institute's HHMF Bulletin, titled, "Plants Are Us," http://www.hhmi.org/bulletin/nov2006/ features/.

> Carol Anelli Associate Professor, Entomology

I'M SHOCKED that the majority of letters addressing evolution were critical of your spring issue! If the letters section represents the overall response, it's sad that the majority of WSU grads value faith and strict adherence to the Bible over reason!

> Ted Dyman, '85 Ph.D. Denver, Colorado

IF THE LETTERS dealing with the evolution article are indicative of the tone and tenor of most of the letters received on the subject, WSU needs to take a long hard look at the efficacy of its biology program. There is no serious argument to be made against the theory of evolution within the scientific community, and I would expect a Washington State grad to be aware of that.

Science is science ... its theories are based on evidence. Not religion. Not ideology. And certainly not on wishful thinking. The theories promoted at the Institute for Creation Research (link helpfully provided by a group of your correspondents) have been thoroughly debunked within the scientific community and soundly defeated in court in the Dover, Pennsylvania case.

> Deborah (Roe) Kachel '80 Mechanicsville, Virginia

I AGREE with Chuck Stewart that in the next issue "you will balance the evolution series with another on creation and creation science." In view of the massive evidence supporting evolution, I think the followers of creationism deserve a chance to publicize their coming to terms with evolution, and to declare that God created evolution.

Trilochan S. Bakshi '58 Ph.D.

I WAS VERY FRUSTRATED to see the letters published that put forth skepticism over the theory of evolution. A publication by an institute of higher learning (yes, WSU) does not need to be promoting this type of religious zeal ... I was honestly embarrassed to see those two letters in the magazine. This soapbox-type drivel should be left to the zealots on a city street corner or the privately funded religious institutions across the country. It certainly should not be promoted by a university of the caliber that WSU professes to be.

> Mike Mariano '93 Seattle

Bobo

I ENJOYED YOUR ARTICLE on Coach Brayton, but note one slight omission. Coach also was PE instructor at Yakima High School during the '52-'54 period. I know-I was there. I earned a C in Beginning Swimming. In'58-'59 at Yakima JC, I earned another C in BegSwim from Coach, and I earned yet another from Coach at WSU in '61. I have never been able to swim above a C grade!

At WSU, Coach always stood about 10 feet to the left of the diving board while watching students dive. One student nicked his head on the end of the board while doing some kind of flip. I swear Coach beat him into the water!

I would not expect Coach to remember me, but I will never forget him!

> Herbert N. Friesen '63 Yucca Valley, California

President Holland



CONCERNING THE SUMMER 2007 "Washingtonia" photo of Holland with his family: I believe the clue to the photo is in the feature to the far right, a lone rock that looks like a mushroom. My father, David McMonigle ('63 CVM), loves to photograph that rock. I believe it is on Sucia Island looking northwest at Fossil Island (from a campsite near Fossil Bay). It is one of the most beautiful places around, sure to put a smile on anyone's face, even Ernest Holland's.

> Rob McMonigle ('98 CVM) Kent

P.S. The Spring 2007 WSM feature on evolution was wonderful. A healthy

separation between belief/faith and science is essential for us to continue to explore our world.

THE PHOTOGRAPH appears to have been taken at Ewing Cove on Sucia Island in the San Juan Islands of Washington. The photographer is facing east toward Matia Island, the dim landform in the distance. There are two small islands left (Ewing Island) and right behind the boat, and a mushroom-shaped rock on the right edge of the picture. I've sailed to this spot with my family twice in the last four years. It is on the remote NE corner of Sucia Island, accessible only by boat.

Mike Varnum Associate Professor, VCAPP



A contemporary version of our "Washingtonia" photograph—boat and all—courtesy of Mike Varnum.

MY MOTHER, Loraine (Foster) McKenzie '47, lives with me in Chandler, Arizona. When Washington State Magazine arrives, she reads it from cover to cover, reminiscing about the good times she had during her time at WSU. In the latest edition, Summer 2007, there was a picture of Ernest Holland in a boat with his niece and nephew. The attachment is a story she told me about her first meeting with a new friend, President Holland. Enjoy!

It was the fall of her freshman year at WSU when she and roommate Betty (Berkheimer) Arnold were walking from town back up the hill to campus. On the way, they stopped at a donut shop for a treat. As they restarted their walk, a long, tan Cadillac stopped, and the driver asked the girls if they would like a ride up the hill. They weren't sure who this person was, but the man evidently knew WSU. They got into the back of the car with their packages and their donuts. "Would you like a donut?" They offered. "That would be nice. Where are you going?" he asked. "Steven's Hall" they replied. "I know where that is, it's near my home. I'd be happy to take vou there."

When they arrived, there were some upperclassmen sitting in front of the dorm.

After they jumped out of the car and waved a good-bye to their new friend, an upperclassman asked, "Do you know who that was in that big car you just got out of?" "No, but he was real nice, and we shared our donuts with him." "That was President Holland!" The girls looked at each other in surprise and exclaimed, "We should have cleaned up the crumbs that we left in the back of his car."

Kathleen McKenzie

Wazzu

AN ARTICLE in a Seattle-area paper about Lane Rawlins' stint as president credited Dr. Rawlins with taking a number of measures, including raising admission and academic standards, to clean up WSU's reputation as a party school.

One measure that proved unpopular with students and alumni alike was the banning of "Wazzu," WSU's traditional nickname, from all licensed apparel, decals, etc., on the grounds that it was a contributing factor to the alleged academic decline of the 1990s.

Now that our favorite institution of higher learning is back on track and the so-called downhill slide of the 20th century is behind us, can we reclaim "Wazzu"?

William E. Anderson '72 Edmonds

Looking back

IN THE FALL OF 1942, military recruiters came to the WSC campus to enlist men in the Enlisted Reserve Corps (ERC). I enlisted on October 10, 1942, and expressed a preference for the Air Corps. I can offer no explanation except for the fact that I was 19.

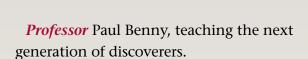
In early 1943, lists were posted ordering those in the ERC to report to Fort Lewis for active duty. List after list was posted, and my name never appeared. Soon I was one of a small number of males on a campus consisting largely of coeds. I panicked! A message was hastily dispatched to the Army saying, "You have to take me too." They did! On March 23, 1943, I reported to Fort Lewis.

Somehow, I found out that there was no preference for the "Air Corps"—only Army, Navy and Marines—and you were supposed to choose one of the three. I had volunteered for a branch of the military that didn't exist. If I had not written that fateful letter, I might have spent the war on campus amongst all those coeds!

I spent three years in the Army. My contribution to victory in WWII was *de minimus*, if not less, but the Army's contribution to my education was beyond calculation. I returned to the campus in 1946, and after two halcyon years, received a B.A. degree in economics in 1948. I went on to earn a Ph.D. at the University of Wisconsin in 1953. I am very thankful that there was no "Air Corps" alternative.

John M. Kuhlman '48 Weaverville, North Carolina

Scientist Paul Benny, discovering better ways to fight prostate and breast cancer.



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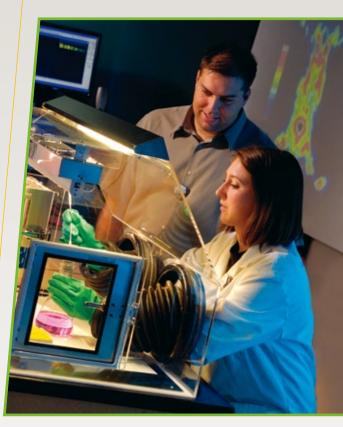
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by Cherie Winner

HEN YOU COME to a fork in the road," said Yogi Berra, "take it." Xavier Perez-Moreno has done just that.

Last spring the effusive, ponytailed Spaniard received a Ph.D. conferred by Washington State University and The Catholic University of Leuven in Belgium. WSU officials think he is the first Cougar to earn a doctoral degree jointly with a foreign institution.

Xavi (SHAH-vee), as his friends call him, clearly isn't big on either/ or choices. Besides bridging universities on two continents, his dual degree also combines different kinds of research and departments: theoretical physics here, experimental chemistry at Leuven.

But Xavi didn't set out to break institutional barriers. He simply went where his restless curiosity led him—and where his advisors encouraged him to go.

When he arrived at WSU in 2000, Xavi thought he was headed for a career in theoretical physics: he was long on ideas, short on lab work. That began to change when he took Mark Kuzyk's course in optics.

"It was learning how to use lasers," he recalls. "And I had NO idea. I'm very clumsy still. My friends are always like, 'Xavi, before you go to the laser, are you being very careful?'" He laughs. "We spent a lot of time playing with [optical] fibers, and that's when I realized, Oh yes, this is very, very exciting."

He became intrigued with nonlinear optics, and devoted his master's program to exploring Kuzyk's hypothesis that there's a fundamental limit to how strongly any molecule can interStudent of Light
RECENT GRAD TRANSCENDS
BOUNDARIES

act with light (see "Taking it to the limit," <wsm.wsu.edu/stories/ 2006/May/kuzyk.html>). Just as he was finishing that degree, Xavi's visa expired. New post-9/11 laws required him to return to Spain while he re-applied for admittance to the United States. Facing a three-month wait, he asked Kuzyk if there might be some place in Europe he could work until the visa came through. Kuzyk suggested the lab of Koen Clays, a physical chemist at Leuven who had provided the first experimental support for Kuzyk's revolutionary ideas.

Xavi and Clays hit it off, and Xavi decided to stay in Leuven for his Ph.D. in order to be closer to family. He continued collaborating with Kuzyk as time permitted. A few months after Xavi moved to Belgium, Clays pointed out that Kuzyk was mentoring Xavi at least as much as he was. Leuven had done joint degrees with a university in Sweden; why

not try the same sort of program with WSU?

"We weren't sure if we could do it, because it's never been done before," says Kuzyk. "It took us almost the whole time he was in Belgium to iron out all of the paperwork."

Each school had requirements Xavi had to fulfill, some of which were contradictory. In the end, says Kuzyk, WSU authorities "were pretty flexible about it. I think that if the University had been even a little bit rigid, it wouldn't have worked out."

The result was one of the most successful doctoral programs in Kuzyk's memory. News of Xavi's work has appeared on dozens of tech blogs, and chemists from all over the world are sending him samples to analyze. Not only that, instead of losing a student when Xavi went to Leuven, WSU gained a teacher in Clays, who last year became an adjunct professor in WSU's physics department. During

a recent visit to Pullman, the Belgian scientist bought a pile of Cougar paraphernalia, including a bumper sticker that he installed on his office door in Leuven.

"He thinks Pullman is great, and he thinks Washington State University is fantastic," says Kuzyk. "It's kind of ironic, coming from a person who's at one of the oldest universities in Europe, that's one of the most highly respected universities there."

Lance Leloup, who heads International Programs at WSU, says his office will be happy to facilitate more joint graduate programs, "but the leadership for them has to come at the departmental level. Joint and dual degrees I don't think can be imposed from the top down."

Kuzyk agrees.

"If it comes from the ground up, there's a lot more commitment from the people [involved]," Kuzyk says. He and Clays are already looking forward to coadvising another student, who is currently working in Clays's lab. With an agreement now in place between the two universities, the process should be easier this time.

As for what Xavi will do next, Kuzyk thinks he'll thrive best in a situation that gives free rein to his energy and imagination.

During his doctoral work, says Xavi, "Kuzyk and Clays leave me a lot of freedom. They say, 'This is what we allow you to do.' And then if I say, 'But I've been doing this and this and this,' it's, 'Really? You did that? That's good!'"



TO READ MORE

about Perez-Moreno's work go to wsunews. wsu.edu/detail. asp?StoryID=6216.



T STARTED A CENTURY AGO, on August 17, 1907, when a small group of farmers set up stalls at the corner of First and Pike in Seattle and sold their produce right on the street. They claimed their little city-sponsored market experiment was born out of need. The local brokers had been price fixing, so farmers were being underpaid for their eggs and vegetables. Furthermore, consumers were paying high prices for food that was often old, bruised, and wilted.

The little corner market changed all that. Offering some of the most affordable fresh food in Seattle, it grew quickly and flourished through the Great Depression. In time it was moved into a covered arcade, and a neighborhood rose up around it.

But things turned sour after

World War II. The rise of supermarkets and large-scale farming cut down the numbers of Pike Place farmers and of shoppers willing to patronize them. By the mid-1960s, city leaders decided the market's buildings, now run down, were a blight on the neighborhood and made plans to raze them. But thanks to a groundswell of community support and efforts to make it a historical district, the market was saved. In 1973 the nonprofit Pike Place Market Preservation and Development Authority was formed.

Pike Place Market has seen many changes over the past century, but its central mission, to be a place where farmers and customers meet, hasn't changed one bit, says Sue Gilbert Mooers '83, a communications specialist who has worked for the market preservation and development authority for 20 years. The rules of the market stalls still apply: no farmer can sell produce he didn't grow himself, and no artisan can sell items he didn't make.

Today the market sees more than nine million visitors a year. It covers nine acres, and includes seven buildings for low-income housing. It hosts a daycare and senior center and hundreds of businesses, including dozens of restaurants. On top of it all, it's the oldest continuously running public market in the United States.

Gilbert Mooers has relished her time working in a Seattle landmark. It's always a lively scene, she says. And it's so easy to stop at the market stalls, pick up some produce, and take a bit of where you work home with you.



BORROWING NATURE'S DESIGNS

by Cherie Winner

N MICHAEL KNOBLAUCH'S lab, the gap between fundamental research and practical applications is a narrow one.

Knoblauch studies the inner workings of phloem (FLOAM), the channels that transport water and nutrients throughout a plant. Research doesn't get much more basic than that—yet one of his recent discoveries is leading him straight to the patent office.

He's found that structures in the phloem of some plants have great potential as high-tech, microscopic valves, sensors, and motors.

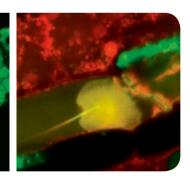
Knoblauch named the structures "forisomes," which means "gate-bodies." He found that they keep the phloem from leaking after it's been injured.

Phloem is comprised of parallel tubes, or sieve elements, each of which is made of long, narrow cells laid end-to-end. The end of each cell, the sieve plate, is pocked with holes that allow fluid to move into the neighboring cell.

In healthy sieve cells, forisomes resemble toothpicks. They were first observed through the light microscope more than 100 years

ago, but nobody knew what they did. Knoblauch and his colleagues in Germany noticed that the toothpicks only appeared in samples that were bathed in EDTA, a chemical that binds calcium. That was significant; structures inside plant cells usually don't encounter free calcium, since most plant cells actively pump calcium out of their cytoplasm. But these cells had been broken open during preparation for microscopy. Could it be that the toothpicks occurred in intact cells or in EDTA, but disappeared when exposed to calcium?

Knoblauch tested that proposition. When he replaced the EDTA with a calcium-containing solution, the toothpicks instantly disappeared—or seemed to. Closer examination revealed that they had converted to a shorter, plumper form that couldn't be seen with normal light microscopy. He added EDTA again, and presto! the toothpicks reappeared. He went on to show that pricking an intact sieve cell with a microneedle—mimicking an attack from a sap-sucking insect—instantly triggers the shift.



Botanist Michael Knoblauch says the long form of a forisome (*left*) resembles a crystal, and the plug form (*right*), a wad of chewing gum. So far, forisomes have been found only in members of the Fabaceae, or legume family.

Whenever a sieve element is damaged and calcium enters a cell, the slender forisome changes into a gloppy plug that stops flow through the sieve plate. When the cell heals the break in its membrane and pumps out the remaining calcium, the forisome returns to its toothpick form. The sieve plate is unblocked, and flow resumes.

Further tests showed they also change shape in response to barium, strontium, a change in pH, or an electrical impulse.

Knoblauch says their gap-plugging ability makes for isomes prime candidates for use as valves in microfluidic systems such as "labs on a chip," in which diagnostic tests are run on tiny glass or polymer chips. "It's minimization of the equipment, for example, to detect individual cancer cells in the blood," he says. "So you don't need a half liter of blood, you just need a drop. You put it on the lab chip, and in the chip [all the tests] are performed." The technology has already become a billion-dollar industry, but making secure valves is still a problem. The most effective in use today involve pressing rubber into the fluid channel, he says, "but all of these valves leak. And the forisome doesn't leak."

For isomes could also be used as micromotors. During their shape changes, they push as well as pull, and they generate the same amount of force in both movements.

"It's not as strong as muscle, but it's not too far away from it," says Knoblauch. "The force which is generated would be sufficient to lift [tiny] cargoes."

Perhaps most amazing of all, forisomes accomplish their shape changes without consuming ATP, the usual energy source in living systems. They also appear to last forever. They outlasted Knoblauch, at any rate. He and a colleague once tested their endurance by sitting down with a microscope, a forisome, and electrodes to spark the change. After 4,200 cycles of expansion and contraction, Knoblauch stopped the experiment. He had other things to do, but the forisome was still going.

Knoblauch's lab is now working to identify the proteins forisomes are made of, in hopes of developing a way to produce them for industrial use. Even if forisomes turn out to be unsuitable for hightech purposes, he says, once we understand how their structure enables them to do what they do, they could serve as a model for engineers to design devices that work in a similar way.

He already holds one patent, for a microinjection system, and is enjoying this new foray into bioengineering. Still, his primary interest remains figuring out how phloem works. Sieve elements contain many more proteins and structures that can be seen in electron micrographs.

"And nobody has an idea what they are for," he says. "They are some of the most abundant structures in sieve elements—and if it's there, it has a function—I think a very important function"—perhaps one we can harness or be inspired by.





by Hannelore Sudermann

APRIL 1970. Around 10 p.m. seven-yearold Joanna Law, asleep in her bed, is awakened by sounds in the living room. In her pajamas, she pads out of her bedroom to join her older brother and sister at a large picture window. Looking south over the Washington State University campus, they witness an appalling sight: a raging fire devouring the stands around Rogers Field.

For the next two hours the Law children and their mother watched one of WSU's biggest mysteries unfold, as flames fed on

the dry timbers of the old bleachers on the east side of the stadium, sending plumes of smoke over Pullman. Spitting giant embers into the sky, that fire destroyed nearly all the south stands at the football arena, the press box, and the end zone of what had been the home field to both the WSU Cougars and the University of Idaho Vandals.

Joanna's father, David Law, was assistant director of the general extension service and had left home that night to pick something up from his office near Cleveland Hall. It was spring break, so campus was empty. He remembers traveling up Stadium Way and glancing over at Rogers Field. "It was fine," he says. "But when I came out from behind Regents Hill a minute later, it was on fire. It happened that fast."

He ran to the fire department and beat on the door. In just a few seconds, the stands closest to him were engulfed. Before the firefighters could arrive, people had scrambled over the fence to rescue equipment inside. Law saw Cal Watson, a communication professor, risk his life to drive the new KWSU-TV bus away from the stadium.

Today, David Law ('59 Speech) a retiree living in Metaline Falls, and Joanna (Law) Steward ('82 Comm.), a magazine editor at Carnegie Mellon University in Pennsylvania, are still haunted by the event. "Did they ever find out what happened?" asked Joanna last spring, echoing what students asked at the time and what the Pullman community still wonders.

The answer is no. The mystery of what, or who, caused the fire that changed the face of WSU football has never been solved.

But there was no question it was arson. According to newspaper stories printed in the days following the fire, investigators believed someone intentionally set the stadium ablaze. Several students near the scene said they had heard three explosions before the fire broke out.

"There was too much fire in too short a time for it to be anything but arson," J.E. Sykes, the state fire marshal, told the newspapers. Fortunately, no one was hurt. But the incident caused \$700,000 in damage to the stands and equipment.

This wasn't the first time the stadium had been targeted. A year earlier, someone

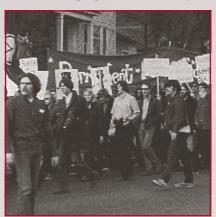
had called in a bomb threat at Rogers Field. According to Richard Fry's history of sports at WSU, *The Crimson and the Gray*, a groundskeeper and his boss who went to investigate found not a bomb, but an entire toilet that had been buried upright beneath the 50-yard line.

The late 1960s and early '70s were times of racial tension and political unrest on campus and around the country. Just a few weeks before the fire, a WSU student protest had turned into a march on Pullman to draw attention to a variety of issues, including the lack of an ethnic studies program on campus, the Vietnam War, and unionizing farm workers.

Given what was happening on campus and nationwide, "I was under the impres-

sion the whole country was coming unraveled," says David Law. "We even had watches stationed around campus, especially in the labs."

Some townspeople started blaming the



students for the fire. But others, like track coach Jack Mooberry, stood up for them, pointing out they were the first to fight the blaze. "A lot of students beat even the firemen to the scene," Mooberry wrote to a local newspaper. "They had to scale a high fence to help. They went as far up in the south stands as possible, saved two television cameras left by KWSU... They used garden hoses to keep water on our rubberized asphalt track and kept that and the lower stands hosed down for most of the night."

There were other rumors. A firebug in Lewiston was torching public buildings. A Seattle-based dissident group had threatened to come over to Pullman and wreak havoc. Maybe a student activist did it in protest against the Vietnam War.

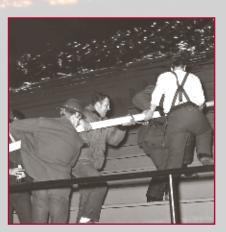


Facing page: Students march on Pullman. Below, left: Students, University employees, and firefighters worked together to save equipment on the field and around the stands. Below, right: The stadium fire quickly became an inferno that devastated the south stands.

The Rogers Field Fire

And some students suggested in a letter circulated on campus that WSU's own athletics department orchestrated the fire because it wanted a new, updated stadium.

Investigators focused on one person in particular, a student who was already known to the police because of his involvement in prior student protests and who was seen on campus by an officer before the fire. The previous year, during a march to local grocery stores on behalf of field workers, the student was arrested, charged, and convicted of inciting a riot. The University administration believed he was a leader and hero to some of his fellow students. But classmates who attended the protests said he wasn't a key organizer.



One underground student newspaper suggested he had been targeted by the police because he was African American.

The student, who graduated in 1973, couldn't be reached for this story. His attorney from that time, Wallis Friel '53, said he was charged but eventually released. "There was never any evidence that he started that fire," says Friel.

Meanwhile, there was football to be played. A new stadium, named for Governor Clarence D. Martin, whose family donated \$250,000 to the project, was completed in 1972, offering 30,000 seats, and an Astroturf field. It was further updated and expanded in 1979.

Three decades later, the Martin Stadium is changing again. Financed by a \$24.65 million bond issue and student support via a \$25-per-semester fee, WSU officials started the first phases of the Martin Stadium renovation in December 2006. The project is expected to provide better access, improved concessions and restrooms, and ultimately 7,700 more seats. The first two phases will include changes to the south, east, and north parts of the stadium, adding restrooms, widening the south concourse, and improving the overall look. The bond money will be repaid through athletic department revenues,



specifically a facility fee placed on football tickets, and the student fees.

Two more phases, which have yet to be funded, will include the building of luxury suites, loge and club seats atop the north stands, and more seating on the east. The final phases, scheduled to start in 2008, will be funded through donations, sponsorships, and revenue from the leasing of premium seating. Construction will proceed in such a way as not to interfere with the 2007 and 2008 football seasons.

It's a long way from the wooden structure build in 1936. But at the heart of this stadium project lies the mystery that brought Martin Stadium into being in the first place.



SECURITY < OR > INVASION OF PRIVACY?

by Annette Ticknor '07 and Hannelore Sudermann

ONE FRIDAY NIGHT last winter, a Washington State University police officer walked past the open door of a student's room in Stephenson East and looked in. She smiled and said "Hey," and received a cool "Hi" in reply. As soon as she walked past, the student shut the door and clicked the lock.

Officer Dawn Daniels has come to expect a range of reactions as she patrols the hallways of residence halls. Sometimes she gets a friendly "Hello." Other times, the doors slam.

In spring 2006, the right of Daniels and her fellow WSU officers to patrol the halls came into question, when an officer following his nose and his instincts discovered illegal drugs in student rooms in two separate cases.

After the students' attorneys filed motions challenging the legality of the searches, Whitman County Superior Court judge David Frazier '73 determined that the officers' presence in the dorms was a violation of the University's own policy—that no one other

than residents and their guests are allowed on the residential floors of the building. The judge ruled that students had a "reasonable expectation of privacy in the corridor/hallway" that was violated by the institution of the patrols. On that basis the cases were thrown out.

This wasn't the first time police presence in WSU residence halls had been tested. In 1978, a police search of a WSU dorm room resulted in the arrest of two students for drug possession. The case, *Washington v. Chrisman*, made it all the way to the U.S. Supreme Court, setting nationwide precedence for police searches in college dorms.

The incident involved an officer observing a student carrying a bottle of gin. The officer approached the student and asked for proof that he was of legal age to possess the alcohol. The student didn't have his identification, so the officer accompanied him back to his dorm room to get ID. There, from the doorway, the officer spotted what looked like

marijuana seeds and a pipe. That led to a search of the room and the discovery of more marijuana and some LSD. Both the student and his roommate were arrested, charged, and convicted. As with the more recent cases, the students' attorneys challenged the legality of the search, citing the students' Fourth-Amendment right to be protected from unreasonable searches and seizures.

The Washington State Supreme Court determined the officer had no right to enter the room without a warrant, a decision that the U.S. Supreme Court reversed in 1982. The majority opinion, written by Justice Warren E. Burger, argued that since the first student was under arrest, the officer had the right to accompany him to his room and did not need a warrant to seize the contraband in plain view.

Now the issue of police in WSU's residence halls has made news again. Frazier's ruling caused the criminal charges to be dropped and at the same time forced the University to suspend dorm patrols last fall. The following winter the WSU Board of Regents changed campus rules to allow University employees, including maintenance workers and police officers, access to the semi-private halls.

But by spring 2007, when police were increasing their presence in the hallways and community spaces, many students were no longer used to seeing officers in their halls. Some complained that the patrols were there to catch them partying. Joe Fortunato, a junior who was running for ASWSU president, campaigned on the issue. He said students are uncomfortable with the notion of the police patrolling where they live, though they hadn't been outspoken about it. "I don't have the police in my house patrolling between my bedroom and bathroom," he said. "I can see where they're coming from."

Carolyn Long, an associate professor in political science at WSU Vancouver who focuses on civil liberties issues, says she could see how the new rule allowing police in the halls could create the possibility of fishing expeditions, with officers trolling for illegal activity like underage drinking. Still, police can often go places the general public can't, and they can make an argument for doing so in the interest of public safety, she says.

It's a timely issue, says Long, especially since Fourth-Amendment protection nationwide has dropped precipitously over the last two decades. Interpretations of what is reasonable have changed, she says. In 2006, the U.S. Supreme Court ruled that evidence collected in a case in which police failed to knock and announce before searching a residence could be used in a criminal case. "There has been a complete shift in the court's perspective," says Long. Under the Warren court of the 1960s, very few searches took place without a warrant, and evidence collected during an illegal search could not be admitted.

In contrast to the national trend, Washington law offers individuals greater protection, she says. The state has a very narrow exception for warrantless searches.

To be clear, though, WSU officers are not in the hallways looking for problems, says Officer Daniels. "The patrols are pretty much there just to be seen," she says. Without the WSU regents' revision of campus rules to allow University employees in the residence halls, student resident advisers were the only ones watching out for the safety of students. "The students are good kids, for the most part," she says. "But there's all kinds of things that happen in the halls. If we weren't there, things could get out of control."



Behold the Blackberry

BLACKBERRY is a flavor of fall in the Pacific Northwest. Whether you sample blackberries straight from the bush, still warm from the sun, or bake them into a pie and top it with a cool scoop of ice cream, it's a deep, sweet taste that conjures up those last days of sunshine.

Blackberries live in the rose family and are close relatives of red raspberries. Their commonly cultivated versions include the black and shiny marionberry and red-black hybrid Boysenberry. Both varieties are available mid-July through early August here in Washington. They are grown mostly on farms in the Puyallup and Mt. Vernon areas and sold fresh or as a u-pick fruit. In Oregon, on the other hand, much of the fruit finds its way into jellies and jams.

The blackberry we see most, especially around Puget Sound, is the Himalayan—a noxious weed to most farmers and county road workers. The plant was likely introduced in California by Luther Burbank in 1885. He called it the Himalayan giant, because he believed it to be of Asian origin. But the plant has, in fact, been traced to Europe. Since its introduction in the early 1900s, it has crawled up the coast to Washington, where it crops up at the edge of forests, along roads, and in vacant lots. "These are the mounds that crawl over small houses and big cars," says Jim Kropf, director of the Northwest District of WSU Extension. "They will take over." Branching from one root ball, the Himalayan blackberry bush can grow up to 15 feet high and have trailing canes that reach 40 feet long. The thickets choke out other

foliage and prevent the establishment of trees.

People devise all kinds of ways to get rid of their Himalayan blackberries. Some use goats, some pesticides, and some—risking a severe scratching-will prune a tunnel to the middle of the bush to attack the crown. But even that can sometimes spur growth, says Kropf.

Most people just tolerate the plant and even take advantage of it. It has a long season, ripening into October. And there's nothing illegal about harvesting fruit from the bushes that grow along roads and in public parks. Just be sure they haven't been sprayed, says Kropf. The plants may look healthy, but he cautions people to do their homework, since many counties spray herbicides along their roads for weed control.

The vigorous bush's abundant fruit is in some ways a payment for the use of the land. We look forward to the days in autumn when all we have to do is walk down the road, or into a park, to pick a pail's worth.



Their Place in History

WSU Women Athletes Made Their Mark

by Hannelore Sudermann



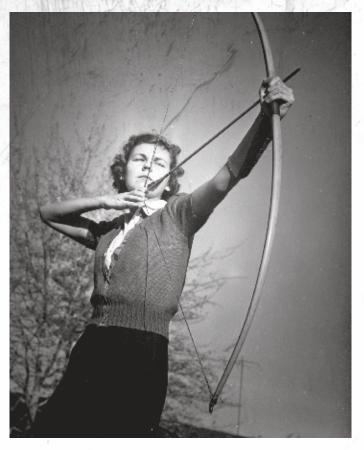
Above: Members of the Fish Fans swim club, 1948.

Facing page: Archery practice, 1941, and a 1937 soccer match.

ONE DAY IN 1948 four Washington State College students tugged on their white rubber swim caps, adjusted their nose plugs, and plunged into a cold swimming pool. Three of them locked together head to foot to form an underwater ring, and the fourth swam through it toward a photographer who captured the maneuver on film.

Last year Ryli Clark '06 found that picture—one of a series of photos of the Fish Fans, WSC's swimming club—and she was stunned. "At first I couldn't tell what or where it was," says the alumna who had just graduated from WSU with a degree in digital technology and culture. "But the more I looked at it, the more amazing it seemed."

Clark had discovered the image in WSU's Department of Manuscripts, Archives, and Special Col-





lections (MASC), where she held a one-year post combing through photographs from the University's collections hunting for visual records of women athletes at WSU from 1900 to 2000. Thanks to a state grant for preserving women's history, she was able to digitize and put on-line more than 300 of those photos.

At first, Clark wasn't sure how she'd connect with the project, especially since she's not particularly athletic. But once she started looking through the scrapbooks and collections, she was hooked. Clark found women laughing, smiling, running, jumping, and dancing. She uncovered thousands of images of a campus alive with activity. "I even came across a few sports I didn't even know existed," she says. Field ball, for example, seemed to be a big sport

in the 1920s. The ball was soccersize, but Clark knew the game wasn't soccer. The athletes were obviously using their hands to catch and throw the ball.

Her curiosity moved beyond what these students did for exercise to the logistics of doing it. "I can't imagine participating in sports wearing the clothes they did," she says. "In the early years they had big wool pants, big bows, and big shirts." On their feet, she saw old-fashioned, wellworn shoes and boots with no cushion and no arch support.

Clark had always thought of old photographs as being rather staid. But as she held the images of her classmates from earlier times, she thrilled to view a cluster of women from the 1920s clad in togas, linking hands, and throwing back their heads as they

pranced in a circle; a group of women from the 1930s armed with foils, wearing loose kneelength gauchos, and fiercely fencing one another; and from the 1940s, students in long tweed skirts, standing daintily on the grass to practice their golf putts.

As Clark sorted through the material, it struck her that the earliest photographs showed the widest range of activities: track, baseball, interpretive dance, basketball, archery, field hockey, and riflery. But later, in the '50s and '60s, the sports seemed to boil down to just a few, like gymnastics, bowling, and cheerleading. Clark wonders if the change had something to do with changing times and culture, or if photos of other sports just didn't make it into the collections.

For a better understanding, she studied up on Title IX, a national gender equity law enacted in the 1970s and tested at WSU in the 1980s. A Pullmanbased case, Blair v. WSU, resulted in a Washington State Supreme Court decision to provide student athletes in Washington equal support and facilities regardless of gender. That decision brought more funding for women's sports and provided women with a greater variety of sports in which to compete.

But it may have been hard to match the sheer variety of activities from the earliest years of WSC when there was a real diversity of clubs and activities, says Trevor Bond, the special collections librarian who worked with Clark on the project. "It's great to see that these things were on





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campus at one time, even if they aren't around anymore."

Many of the photos Clark included in the new digital collection came out of the University's own archives of pictures shot by faculty, employees, and local studios. But others came from personal scrapbooks donated to the library by alumni, says Laila Miletic-Vejzovic, head of MASC and administrator of the state grant from the Washington Women's History Consortium. The women's history initiative, led by the Washington State Historical Society, is designed to preserve and make public the

details of the history of women in Washington. The University is one of the technical partners in the initiative, and is eligible for state funding to delve into its archives, organize its documents relating to women's history, and make it more accessible to the public.

The archivists are hoping that more alumni will connect with this collection, either by contributing some of their own images, or by providing details of the photos already on-line. When Miletic-Vejzovic visited a library donor in Oregon last spring, she happened to mention

the Women's Athletics project. The alumna, Barbara Brooks '78, mentioned that she had been in gymnastics at WSU. In fact, it was one of the things that attracted her to the school, she said. So Miletic-Vejzovic opened up the on-line database, and sure enough, a photo of Brooks's team was there. "She was so happy to see it." And she was happy to provide details about her fellow team members and the coach.

That was good news to Clark, who would still like to know more about many of the photos she spent so much time with over

the past year. "It would be great if more people came forward with their stories," she says.

Clockwise, from upper left: Skiing in 1955; group exercise for the Women's Service Corps ca. 1945; field hockey in 1914; interpretive dance ca. 1925.



TO VIEW MORE

photos of women athletes at WSU and learn more about the

Washington Women's History Consortium, visit http://content. wsulibs.wsu.edu/cdm4/index_ wsuwa_whc.php.

ONCE UPON A TIME, Ireland was mostly forest. In prehistoric and early historic times, trees covered an estimated 90-95 percent of the landscape. But English invasions, rebellions, and industrial demands moved the landscape toward its modern austere treelessness.

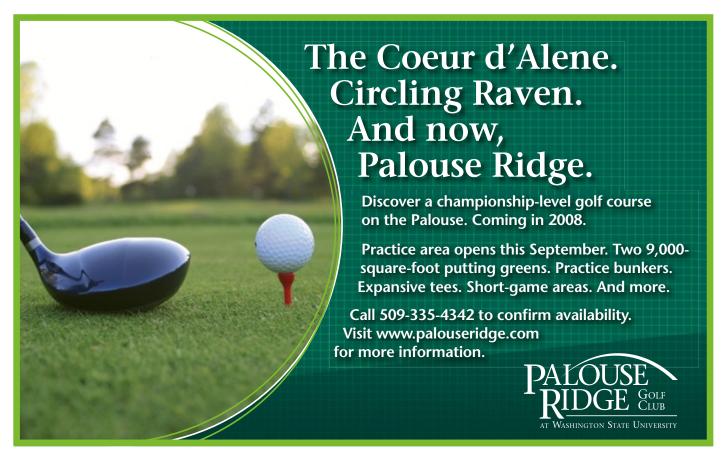
A hundred years ago, barely 1 percent of Ireland was forested. Now forest has reclaimed 10 percent of the landscape, and the Irish government would like to raise that coverage to 17 percent. Toward that goal, it has

mounted a reforestation campaign, backed by a program of grants to landowners to plant trees. Trouble is, the Irish haven't been used to seeing forest as part of their landscape for centuries. Particularly jarring is that the new forest is predominantly a monoculture of non-native Sitka spruce.

Matt Carroll, a community and natural resource sociologist in the Department of Natural Resource Sciences, became intrigued



HOTOS COURTESY MATT CARROLL



by the situation after meeting Aine Ni Dhubahain, a forester at University College Dublin, who had an ongoing project examining the social and economic impacts of forest planting over the last 20 years. Her expertise lay primarily with the economic implications, so Carroll decided to look more closely at the social side.

Backed by a Fulbright, Carroll focused on two study areas in County Kerry in southwestern Ireland. The first, around Causeway, is agriculturally productive and prosperous. Forest planting there is relatively scarce. The other area, around Brosna, is not as productive and, says Carroll, has a longer history of people realizing they need something other than farming to make a living. Far more of that area has been planted to forest.

Native forests in Ireland were primarily hardwood. However, hardwoods generally prefer better soils, which are largely considered reserved for food production. At some point, it was discovered that Sitka spruce does very well in Ireland, tolerating the country's poorer land. Government reforestation now emphasizes the planting of Sitka spruce in intensive, largely monoculture tracts, on a 20-25 year rotation.

Carroll interviewed residents regarding the new forests and found their attitudes mixed. "Culturally speaking, planting is acceptable only on bad 'rushy' land, cut-over bogs," says Carroll. No one wants to use good agricultural land for forest.

Other reasons residents gave for not liking the new forests were that they are isolating. People were used to seeing their neighbor's lights across the treeless landscape. Neither do they like the visual monotony of spruce forest.

Also, the new forests have created a curious twist on the spotted owl controversy here, which Carroll explored in his dissertation. Some worry that the increasing forest threatens the hen harrier—an endangered bird of prey-which requires open landscape as habitat.

"Where there is unhappiness with forestry, I think it's linked to broader trends," says Carroll. Ireland's current robust economy, the "Celtic tiger," is accompanying broad social changes, particularly in rural areas. Farming is moving to more of an industrial model, which results in consolidations and increasing reliance by smaller farmers on supplemental incomes.

"Until fairly recently, people were supporting families on 20 cows," says Carroll. That is no longer possible.

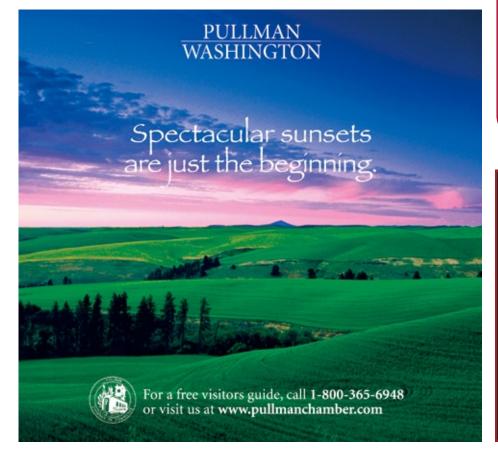
"So there's this huge economic expansion going on," he says. "At the same time, you have agriculture going through wrenching changes. And there's the sense of many people their culture is being lost, oral traditions, genealogies, poems. People are worried about losing all that in the context of changes in farmland."

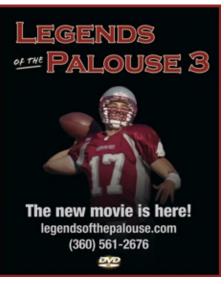
Frontline: Pullman



FOR SENIOR COMMUNICATION major Kate Yeager, playing host—and advisor-to Frontline executive producer David Fanning was the high point of her student career. Yeager and producer Mike Kirk were in Pullman to accept this year's Edward R. Murrow prize. For Yeager and other students, Frontline and its brand of journalism is particularly aligned with Murrow's principles.

See Annette Ticknor's account of Yeager's day at Washington State Magazine Online, wsm.wsu.edu.











Nearly ten million people visited Seattle during the 1962 Seattle World's Fair. Somebody had to tell them about it. As the fair's publicist, Jay Rockey was that somebody. Many credit Rockey with inventing public relations in the Pacific Northwest—and the World's Fair is where it all started.

Seattle, 1960. The latest census had pushed the city's population over half a million. Labor leader (and former UW regent) Dave Beck was on his way to prison on corruption charges. Otherwise, things were pretty good. Those who knew about Seattle recognized it as sitting in the middle of a glorious natural playground. People had jobs. But Boeing, lucrative as it was, was the only industry in town, and some worried that the city had become complacent. Governor Rosellini thought that Seattle suffered from negativism, "too much inclination to suppress the confidence that lies naturally in many of the people."

But then two things happened, perhaps not quite of equal import. But they were related.

First, the Seattle World's Fair, officially known as Century 21 Exposition, emerged as a shaky reality, not just a pipe dream.

Second, Jay Rockey returned home to take over as the fair's publicist.

As great an idea as the fair was in hindsight, convincing Seattle that it should, even could, be done was something of a miraculous feat.

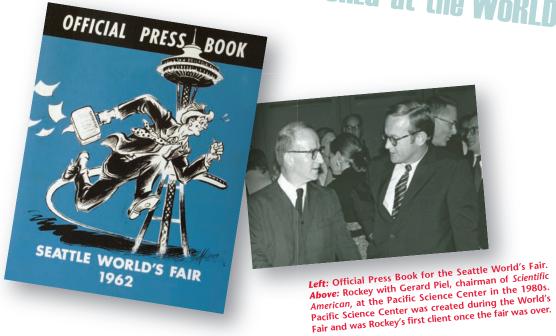
Originating at a legendary, and perhaps apocryphal, martini lunch at the Washington Athletic Club in 1955, the idea of a fair soon took the form of a resolution before the city council. Interestingly, as Murray Morgan points out in his lively and idiosyncratic history, Century 21, there was no mention of funding in the proposal, which suggested a 50th-anniversary celebration of the Alaska-Yukon-Pacific Exposition.

Fortunately, the idea had legs and made its way to the legislature. Then-governor Langlie signed, with little apparent enthusiasm, a bill calling for a feasibility study. But if he had wished the idea would go away, he made a historic mistake. He appointed longtime friend and UW frat brother Eddie Carlson to chair the committee that would explore the feasibility of a world's fair in Seattle.

Carlson, who would soon become president of the Western Hotel chain, was dogged and bright. Maybe he couldn't walk across Puget Sound, but he had the determination, connections, and charisma to bring the fair to reality, against the odds and in spite of what some saw as a significant part of Seattle's population that was determined to stay small and out of the limelight.

Things proceeded. A commission was formed. Money was designated and eventually raised. A director, Ewen Dingwall, was appointed.

it Happened at the World's Fair



Century 21 Exposition became a nonprofit corporation. Seattle was on its way to being presented to the world with a fair that was not only fabulous, but made money for the city and investors.

But maybe that's moving a bit too quickly. What started as a bold vision hit a wall in 1957. A group of civic leaders, including all the members of the Century 21 Corporation, met for a preview of the fair. The preview was indeed impressive. But the estimate for what was proposed came in at \$32 million dollars more than had been promised the corporation by the city and state. Their dismay precipitated what Morgan depicted as "great waves of discontent, threatening disaster" during 1959 and 1960.

Let's now return to our second significant event.

Jay Rockey '50 had grown up in Olympia, enlisted in the navy during the last days of World War II, then went off to Washington State College to major in English and journalism, play second-string basketball, and sing in a quartet called the Spectacles.

After graduation, he returned to the navy for the Korean War, then worked for a while for the United Press, covering the state legislature. Next to him sat Jim Faber, with the Associated Press. Eight hours a day, for four months. They got to be good friends.

Through a college friend's father who was regional public relations director for Alcoa, Rockey landed a PR job with Alcoa in Vancouver. There he met Retha Ingraham, and they married. They headed East, where Jay manned Alcoa's New York office. He loved it—the job, the city, everything about it. But after five or six years and three children, he and Retha started thinking about moving back West, where their family was.

One day, Jack Ryan, formerly with the *Seattle Times*, now working the finance section of the *New York Times*, called and said there's a press conference you ought to be interested in. Washington governor Albert Rosellini was giving a press conference over the phone. The guy directing the conference from Washington was Jay's old friend,

Jim Faber. Rosellini announced that Seattle was going to host an exposition.

"I called [Faber]," says Rockey. "He was actually working for the fair."

A little later, Faber was in New York. Rockey took him to Sardi's, and they talked. Then Rockey flew to Seattle, just to check out the job scene. He had a meeting with Faber at the fair's planning headquarters.

He walked in and asked the receptionist for Faber, but was told Faber had quit the night before. But, she said, let me check with Mr. Dingwall, who invited Rockey into his office.

"Half an hour later they offered me a job," says Rockey. "And I said, 'Are you kidding?' I wanted to work for Boeing or Weyerhaeuser."

But as Rockey left for the airport, Dingwall said, let's keep talking. That was January 1960. In May, he drove into Seattle with his family, ready to spread the word about Century 21.

Shortly after they arrived, the *PI* ran an editorial claiming it could not see how the fair could possibly make it. "Do you really know what you're doing?" Retha asked Jay.

Now, from an actual 21st-century perspective, we realize that the fair left Seattle with much more than the Space Needle, the Monorail (at least, the elevated track), and one of Elvis's less-memorable movies. Nearly ten million people visited the fair the summer of 1962. Somehow, Rockey got the fair on the cover of *Life*. Twice. And on a postage stamp, to boot.

After a six-month run, Seattle found itself discovered. (As a fourth grader in Indiana, I'd have been hard pressed to locate Seattle, until my teacher, Mrs. Kuhn, sent me and my classmates postcards of the Space Needle from the World's Fair.)

In other words, the fair was a fabulous success, and Seattle had joined the ranks of the world's great cities. Jay Rockey, of course, did not do it by himself. But he got everybody to notice.





The whole Puget Sound chapter of the Public

Relations Society of America could have sat around this table, he says. It's not a big table.

So Rockey did the only thing he could do, short of heading back to New York. He started his own company. Things could have been worse. Even though it had to close, the fair wasn't going to go away. You don't just tear down the Space Needle. The Seattle World's Fair became Seattle Center, and the day after the fair closed Rockey announced the opening of the first client of Jay Rockey Public Relations, the Pacific Science Center.

So that was the happy beginning of a long, happy story. But what about the next 45 years?

Well, here's Randy Pepple: "I view Jay as the founder of the PR industry in the Northwest."

Pepple might be a little biased, seeing as he's CEO of what is now Rockey, Hill and Knowlton, which is the result of Hill and Knowlton's buying The Rockey Company a few years ago. But Pepple swears he never spins. And besides, everyone else says the same thing. Then there's the fact that the Puget Sound PRSA lifetime achievement award is called the Jay Rockey Award.

But "the founder" of Seattle PR?

"PR is still a relatively young industry," says Pepple, who started as a journalist with the *Seattle Times* and moved through public affairs and politics before settling in at The Rockey Company just before it joined Hill and Knowlton. "John Hill, the founder of Hill and Knowlton, is seen as one of the founders of the industry in the United States. Hill and Knowlton celebrated its 50th anniversary five years ago."

The industry does have deeper roots, but not much. And public relations in its early days took a slightly different approach than many are comfortable with today.

Edward Bernays, the profession's first theorist, drew heavily on his uncle, Sigmund Freud's, ideas about the unconscious motives that drive human behavior. Brilliant though he was, Bernays got the profession off to a less than savory start. He had little respect for the average person's capacity for dignity, leaning blatantly toward propaganda to drive people's "herd-like" behavior.

You might say that Jay Rockey made a career of being Bernays's antithesis.

"I would describe his style as, he's the ultimate gentleman," says Jennifer West, director of the Spokane office of Rockey, Hill and Knowlton. Rockey bought Jennifer West Public Relations in the late '90s. "And he's extremely honorable, in every facet of his work with people. He's very gracious and humble, but at the same time he's a brilliant practitioner."

"I think the agency approaches PR in a little more old-school

fashion," says Simmi Singh '00, until recently an account executive with Rockey, Hill and Knowlton. Old-school, I might point out, as in the genteel 1960s, not the roaring '20s of Bernays. "We don't think we need giant media stunts," says Singh.

Rockey comes from a day when methodology was defined by the fax machine and the press release, says West. The PR toolbox is a lot bigger today.

Singh's methods, for example, lean toward online communication—blogs and so forth.

Discussing a recent client, "Christiaan [Brown] '98 and I were brainstorming about what to do about a situation without bringing further negative publicity," says Singh. "We're talking about a client working in blogspace, generating content online." They decided to ask Jay's advice.

"He'll tell you straight out, 'I don't understand anything you do,'" she says.

However, "He brought a perspective to our thinking that was so dead on. That's what PR is, you have to have a relationship—with your client and the media."

Erika Schmidt, who is with the Frause Group and is president of the Puget Sound PRSA, bemoans another current PR trend in defining what Rockey is not. "A lot of firms out there now, the principal is the spokesperson for the company," she says. "That just blows my mind. I'm here to advise, to get my client out there, not myself."

Schmidt describes the Rockey style as "more calculating and cautious, less promotional, more behind the scene."

In spite of nearly universal name recognition and a client list that runs through the Pacific Northwest alphabet, from Airborne Express through Weyerhaeuser, Rockey himself rarely shows up in the press. In this age of Google, it's unnerving to go looking for someone who you know permeates a civic and business culture, and he just isn't there.

I mentioned this to Rockey. "That's my job," he said, smiling.

Rockey et al. helped lead Alaska through three governors in promoting tourism and economic development. They've advised the City of Bellevue on growth initiatives and Daishowa America on community relations. They led the effort to rebrand Egghead from a brick and mortar operation to e-commerce and helped Evergreen Healthcare win a voter levy for emergency facilities. They've advised Hancock Timber, King Broadcasting, Microsoft, Riverpark Square in Spokane, Sealaska Corporation, the Mariners, Boeing, and United Airlines. The list goes on.

But one of the jobs that makes Rockey proudest is the Trans-Alaska Oil Pipeline. Rockey's firm was the public relations agency of record for Alyeska for seven years, through permitting, design, and construction on the pipeline.

Rockey has a persistent tendency to change the subject to Washington State University. Naturally he is pleased with the way the University has drawn more attention to itself.

He was president of the WSU Foundation in 1991-2, early in the University's first full-blown campaign.

"He put his professional acumen to work for the Foundation, how to develop a higher profile," says Sharon Morgan, a senior member of the Foundation who has worked with Rockey for years. "He's a philanthropist in the best sense of the word."

He has also long had a close relationship with the Murrow School, serving on its advisory board.

"His support of the program runs the spectrum," says Bruce Pinkleton, a professor of communication, "from words of encouragement to interns and hiring grads, to supporting scholarships. The more you learn about Jay, the more you learn about public relations."

The student chapter of the Public Relations Society of America is named the Jay Rockey chapter.

The Rockey Company was the #1 public relations company on the Puget Sound Business Journal's Book of Lists. But by the late 1990s, the Seattle PR scene had changed dramatically. The dotcom bust was yet to come. The perception on the Rockey Company management team, says Pepple, was that it could no longer compete with the small one- and two-person shops, which lacked Rockey's overhead.

They faced a decision: either get smaller, to compete with the smaller shops, or get larger, to compete for the larger accounts. Or join a larger firm.

Rockey had a history of interaction with Hill and Knowlton, including work on the public relations for the New Carissa, a ship that ran aground off Coos Bay, Oregon, and broke up over time. When The Rockey Company decided on the third option, Hill and Knowlton was a natural.

Today, at 79, Rockey still comes into the office every day. His title within the firm is "Founder." He gives advice when asked. He never intrudes. He continues to practice, it seems, public relations, all the time. Public relations is his life and philosophy. Jay Rockey is proof that nice guys do not finish last. He has built a career and an industry on graciousness and ...

"Charm," he says, when I ask him to specify the traits that had brought him success.

So is charm everything?

"Yes." Then he laughs.

"I worked hard," he says. "And I tried to work with people I respected."

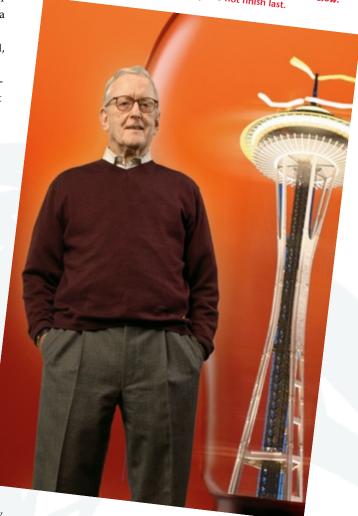
"He has this low-key quality about himself that tends to be very effective," says West. "His way of engaging people is very inclusive, and therefore he gets a lot of people on the same page and gains a tremendous amount of respect, as a result of that style."

The key to understanding his success, she insists, is understanding his character.

So is this guy for real? I had to ask.

"He is," she says. "Isn't that amazing? Wouldn't it be great if there were a lot more like him out there?"

Facing page: Over the years, Jay Rockey (right) has welcomed many WSU interns and hired many graduates. Simmi Singh '00 (center) interned with the Rockey Company and until recently was an account executive with Rockey Hill and Knowlton. Christiaan Brown '98 is vice president and director of the technology practice at RH&K. Below: Jay Rockey '50 is proof that nice guys do not finish last.





Emerging diseases: Unraveling the mystery.

Human beings have faced new diseases, and more deadly forms of old diseases, all through history. Today fears of an epidemic are on the rise, fueled by reports of exotic infections and antibiotic-resistant "super bugs." Despite sophisticated modern techniques for tracking killer pathogens, figuring out where the next deadly disease will come from—and how to stop it—is not a simple task.

n June 2006, 46 fifth-graders and a dozen younger students in Franklin, Massachusetts, came down with diarrhea, stomach cramps, and fever. Doctors soon confirmed the kids had been infected with *Salmonella*, a bacterial pathogen usually transmitted through food. Food wasn't the culprit this time, though. This outbreak stemmed from a class project in which the kids had handled owl pellets, the wads of hair, bone, and other indigestible stuff owls regurgitate after a meal. And when public health officials compared the DNA fingerprint of *Salmonella* isolated from the students and pellets with a nationwide database, they found a match.

"It was a strain which is really localized in Washington State," says Margaret Davis, a veterinary epidemiologist at Washington State University. She studies the type of *Salmonella* known as Typhimurium and had seen the fingerprint from the Massachusetts case before. "As it turned out, they got the owl pellets from Washington."

Salmonella is a hardy bug that gets around on food, owl pellets, and unwashed hands, among other things. It has been making people sick for centuries and still erupts distressingly often, despite our sophisticated techniques for tracking it. In 1985, Salmonella-tainted milk sickened up to 200,000 people in the Midwest and killed at least two; in 1994, ice cream carrying the bug sickened more than 3,000 people in 41 states.

Like other zoonotic diseases, which pass from animals to humans, Salmonella poses special challenges with respect to detection and control. With zoonotics we don't just have to monitor human cases. Since the pathogens are harbored in animal "reservoirs," we need to be aware of what's going on in animals as well. It's a huge issue; infectious disease is the number-one cause of death for humans worldwide, and many of the most frightening new diseases we face are zoonotics. HIV came from apes; SARS started in civet cats and perhaps bats; Ebola probably originated in bats.

While it often seems as if we see a new epidemic disease every few years, Tom Besser, who heads WSU's zoonotic disease research team, says the perception that outbreaks of scary diseases have become more frequent or more deadly in recent decades is largely due to better detection and reporting.

Still, outbreaks do happen. Besser, Davis, and other WSU researchers are working to figure out how and why. What makes some strains of a bug nastier than others? Why do they emerge when

and where they do? Are we more susceptible now than in the past, and if so, why?

ntil the 1980s, the numbers of Salmonella Typhimurium cases identified in animals in the Pacific Northwest rose and fell slightly from year to year, but on average stayed pretty much the same. WSU researchers saw about 50 cases a year in cattle in the state. Then came DNA fingerprinting and other strain-typing techniques, and the discovery that not all Typhimurium are the same.

"Instead of being a steady state, we learned that we were having waves of infection due to different strains that are coming and going," says Besser. He and the WSU zoonotics group track outbreaks of Salmonella and Escherichia coli in the Pacific Northwest by analyzing the DNA fingerprint pattern of each sample they're sent from doctors, veterinarians, and public health officials. They and their counterparts around the world have found that an individual strain of Typhimurium will become dominant for a few years and then decline, as a different strain becomes more abundant.

The strain called Typhimurium DT104, for instance, was first detected in wild birds in England in the early 1980s. It stayed mostly confined to birds until 1989-90, when many cases appeared in British cattle—and people. Within a few years it was found in cattle and humans worldwide; by 1994 every case of Salmonella Typhimurium tested by the WSU lab was DT104.

"It made the cover of *U.S. News & World Report*," says Besser. "That strain got attention because it was the first widespread Typhimurium strain that was resistant to the antibiotic chloramphenicol." That was frightening, because at the time, chloramphenicol was needed for treating severe cases of *Salmonella* infection in humans. We appeared to be facing a worldwide epidemic of untreatable *Salmonella*.

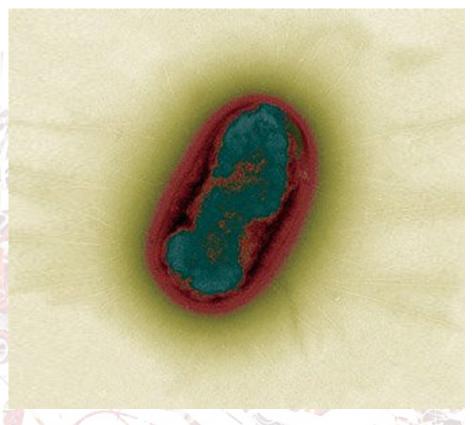
And then, DT104 went away. In Washington, within a few years it dropped to about 10 percent of all Typhimurium cases. Subsequent waves of other strains have come and gone since then—and nobody knows why.

According to conventional wisdom, our over-use of antibiotics could drive the process by selecting for antibiotic-resistant pathogens. Sounds reasonable; decades of records show that within a few years of introducing a new antibiotic, strains of bacteria arise that are resistant to it. However, the role of antibiotic resistance in emergence of new

Salmonella strains isn't clear-cut. It certainly is very bad news to come down with an infection that resists all the drugs available to fight it; but whether the bug's resistance has anything to do with your catching it in the first place isn't known. Emerging strains of Salmonella don't always have more antibiotic resistance than the strains they're replacing. Often they have less. In Belgium, for instance, DT104 had less antibiotic resistance than the strain it replaced. When another strain of Salmonella called DT10 swept across Canada and the U.S. in the 1970s, it was pansusceptible: all of our standard antibiotics killed it.

ongoing "arms race" between a species of snail and the trematode worms that infect it. Native to New Zealand, the tiny snails—each about the size of a grain of rice—and parasitic worms engage in a seesaw relationship that looks a lot like the predator-prey cycles between lynx and snowshoe hares we learned about in high-school biology class. (See wsm.wsu.edu/stories/2005/ february/mudsnails.html.)

The snails come in two reproductive varieties, sexual and clonal. Every now and then, for reasons we don't yet understand, sexually reproducing snails spawn female offspring that will



Strains of Salmonella emerge, become common, and then decline as another strain emerges. The reason for the population cycles isn't clear; they can't be explained by the bugs' resistance to antibiotics.

Left: Electron photomicrograph of Salmonella enterica serotype Typhimurium, a bacterium that infects a wide range of hosts. Usually spreading via fecal-oral transmission, Salmonella has been found on dust particles and can survive for years on dried cow pats or pelleted feeds. Courtesy David Goulding, Wellcome Trust Sanger Institute. Below: **Margaret Davis and Tom Besser** of the Department of Veterinary Microbiology and Pathology. Photos by Henry Moore Jr.

"There were actually papers written showing decreased ampicillin resistance in Salmonella," recalls Besser. "Some attributed it to improved drug-use policies in hospitals, but really it was the displacement of the ampicillin-resistant strains by DT10." In all likelihood, he says, the rise of DT10 was due to whatever causes the normal cycling of different strains of Salmonella.

"Antibiotic resistance undoubtedly can play a role in the success of a strain," he concludes. "It's just that there's enough examples to the contrary to show that that's not always the driving force. It may only occasionally be the driving force."

So what causes the cycling? Evolutionary ecologist Mark Dybdahl has found a similar pattern in a very different system. He studies the reproduce on their own, with no input from a male. Each of these females becomes the founder of a new strain of snails that are genetically identical to each other—they are clones. A single lake may be home to a few, or many, different clones of snails. The neat thing Dybdahl has found is that each clone of snails is preferred by a different strain of the parasite.

Dybdahl uses genetic fingerprints to pinpoint which clone a given snail belongs to and how often the worms infect each strain of snail. He's found a cyclical pattern: as one clone of snail becomes abundant, parasites that are able to infect that strain thrive. They produce more young, which hit that clone of snails even harder. After a year or two of heavy infestation,











Above, top to bottom: Douglas Call of the Department of Veterinary Microbiology and Pathology (Photo by Henry Moore Jr.); Mark Dybdahl and Andrew Storfer of the School of Biological Sciences. (Photos by Robert Hubner.)

that snail population crashes. With fewer target hosts around, the parasite able to infect that clone crashes too. As one snail clone crashes, another snail clone becomes common, prompting a burst in the population of parasites that are genetically adapted to infect it.

"Whenever a genotype becomes common, there's going to be a much stronger advantage to the parasite that can infect that clone," says Dybdahl. "We expect the parasites to evolve to infect the most common host genotype. The parasite evolves to the host, and the host evolves in response to the parasite. And it keeps going."

Molecular epidemiologist Doug Call says that kind of population control could be at work with Salmonella. If microbes in our digestive tracts target specific strains of the bacteria, then as a strain of Salmonella becomes superabundant, the microscopic predators that target it will thrive. Eventually they'll hammer that strain so hard it nearly disappears, to be replaced by another strain whose own enemies aren't so numerous yet.

In lab experiments, different gut protozoans do attack different strains of *Salmonella*, says Call. Proving it happens inside a living animal is not yet within our reach. Most gut microbes can't be grown in a lab; few have even been identified and named.

"We don't like to think of bacteria as being part of our systems, but they're there," says Besser. "It's a very complex ecosystem."

Although we don't know whether our natural microbial flora are responsible for *Salmonella* cycling, we have good evidence that they do protect us from infection—if we haven't decimated them by long-term or frequent personal use of antibiotics. Helpful bacteria are just as vulnerable to antibiotics as nasty ones, and with the good guys gone, the way is clear for bad guys to move in. Besser says the dose of *Salmonella* it takes to make a healthy adult human sick "is in the Carl Sagan range. You know, billions and billions. By taking an antibiotic, an oral pill especially, that you would absorb [through the gut], you can get down as low as 10 cells that could make you sick. So it's a huge factor."

hat determines how damaging a given strain of pathogen will be is still something of a mystery. Some of the nastiest infectious agents in humans aren't even full-time pathogens. They cause few problems in their animal host—like *E. coli* in cattle or *Salmonella* in reptiles—or they are

free living, with no host at all—like *Listeria*, a food-borne pathogen in humans.

Doug Call uses molecular techniques to try to figure out what makes some strains of *Salmonella* and *Listeria* infective. He suspects it takes more than a single gene to turn a bug into a killer; it's more likely that a strain needs a suite of dozens of genes in order to be virulent. Call says that when his recent graduate student, Min-Su Kang, began his research, he was certain there had to be a unique gene or small group of genes that allows one strain of *Salmonella* to be nastier than others. After much fruitless searching, the student concluded there was no such "virulence gene."

"He did a very good job," says Call. "If anyone was going to find it, he was."

Ecologist Andrew Storfer is exploring the possibility that pathogens can become more deadly when something in the environment lowers our natural defenses.

He's working to understand why amphibian populations worldwide have gone into freefall in the last few decades. Nearly half of the 6,000-plus species of amphibians on earth are declining. Ten percent have gone extinct or nearly extinct in recent decades.

"This is unparalleled, unprecedented, by other vertebrates," says Storfer.

Along with loss of habitat and competition from invasive species, amphibians have been getting hammered by diseases they once fought off with some success, such as an iridovirus and a fungal skin infection. Storfer began to wonder if their immune systems might have been compromised by something in their environment. Because they breathe through their skin and are exposed to contaminants both in the water and on land, amphibians might be peculiarly vulnerable to pollution. Could toxins in the water be affecting their ability to fight infection?

Storfer and his research team exposed tiger salamander larvae to atrazine, a widely used herbicide, and iridovirus, starting when they were 12 weeks old. At that age, the salamanders are entirely aquatic, and their immune systems are fully functional. The atrazine was applied at levels found in ponds across the U.S. in springtime, the result of run-off from farm fields. The larvae were monitored for three months, until they were ready to metamorphose and become adults.

The results were striking. Atrazine decreased white-blood-cell counts in the salamanders and doubled their infection rate. And since the salamanders were housed individually, the



Making the spinach crop 100-percent safe from *Salmonella* contamination is probably an unrealistic goal, says epidemiologist Tom Besser. Since the 2006 outbreak, most commercial producers wash their fresh greens in bleach, "and maybe that's doing some good, but you know, the chlorine is not benign either. There are costs to everything."

experiment probably low-balled the incidence of disease; in a crowded natural pond, the virus would likely spread even more.

"The dynamics of this disease are what is called density dependent," says Storfer. "The more animals [that are] infected, the more *get* infected." If atrazine causes the same effects in nature that it did in his experiment, he says, the difference in infection level could mean the difference between a population surviving or going extinct.

Those results offer a clear warning, says Storfer. Amphibians have many of the same disease-fighting tools we have. Their immune systems are more primitive than ours, but have the same basic components.

"If these guys are the first to go and they're sort of a litmus test of environmental quality, then that means as it gets worse, it's going to start affecting other vertebrates—like us," says Storfer. "If their immunity is being compromised at certain levels of pesticides or other things in the environment, we have to worry about what's going to happen to us."

hat is going to happen to us? Even in the short term, with diseases we know a lot about, that's a tough question to answer. Besser, Davis, and Call run a surveillance project aimed at detecting rising strains of Salmonella and perhaps heading off the next outbreak. The microbe's biology makes that difficult; human actions make it even harder. Salmonella is a "reportable" disease in humans, which means that doctors are legally required to report it to public health authorities when they diagnose it; but if the patients don't come in, the doctors have nothing to report.

"If you get diarrhea and the cramping and all that, how many people go to the doctor?" asks Call. Most likely, he says, "You wait it out, and you're fine again [after a few days], and you never know what it was."

"It's way underdiagnosed and underreported," agrees Davis. She says the rule of thumb is that Americans experience 38 times more cases of *Salmonella* infection than are ever reported.

Monitoring of livestock infections is even more haphazard. *Salmonella* infections in animals are not reportable, so the WSU team relies on voluntary collections by vets and livestock owners for those samples.

"It's called 'passive surveillance,'" Besser says.
"Farmer A might be really attuned and send in [samples from] the first animal that looks cross-

eyed at all, and Farmer B might lose 10 animals before he thinks it's important enough to call a vet. A lot of farmers don't even have an established relationship with a vet. So we know we're probably missing an awful lot."

The team also monitors healthy cattle herds and water and waste-management systems. What they've found there complicates the picture even more.

On-farm waste lagoons often contain *Salmo-nella*, which makes sense, since they receive feces from hundreds or thousands of cattle and other farm animals. But *Salmonella* isn't just a denizen of cattle farms.

"When we go down to the Pullman sewage treatment plant and get untreated water coming in, more often than not it's positive for *Salmonella*," says Besser. So does the water coming out of Pullman homes have as much *Salmonella* in it as the water in farm waste ponds? "At least as much, if not more. A little bit different composition of strains," he says. "It's there. It's passing through us all. We find *E. coli* O157:H7 too, in Pullman's untreated sewage. It's not as common as *Salmonella*, but it's also going through us on a regular basis."

E. coli O157:H7. That's the bug that tainted burgers at Jack in the Box in 1993, and that imperiled our spinach salads in 2006. In humans it causes symptoms ranging from cramping and diarrhea to a potentially lethal form of kidney failure. O157:H7 is especially dangerous for kids. It appears to infect us more easily than Salmonella; with E. coli the infectious dose appears to be just a few hundred cells.

Besser says measures taken since the Jack in the Box incident have greatly reduced our chances of getting meat tainted with *E. coli* (or *Salmonella* or other pathogens as well). A major source of contamination was found to be dust on the animals' hides; when cattle were skinned at the slaughterhouse, dust (and harmful bacteria) settled on the meat. Now, carcasses receive a pasteurizing wash after skinning.

That may be our best line of defense, because Besser's work shows that it's unlikely we can ward off *E. coli* outbreaks by identifying the bug in cows before slaughter. Nearly every herd his team has examined carries it.

"Most of the work I've been doing has been going out, working with farmers to find things they can do to reduce the chances that their cattle are carrying O157:H7," he says. "We haven't found any magic bullets after 15 years of work."

He says the often-heard claim that hay- or grass-fed cattle are less likely to carry O157:H7 than cattle that are fed grain is "just not true, in our experience. Grass-fed cattle are as likely to be positive as grain-fed herds." He says numbers of E. coli vary with the season (more in summer than winter) and age of the cow (more in calves than in adults), but that's about it for trends.

So O157:H7 simmers harmlessly along in the cow population, every now and then bursting out in humans. In the summer of 2006, a couple of hundred people across the nation were sickened by E. coli from fresh spinach, in an episode that may say more about our ability to spot trouble in a hurry than it does about dangers in our food supply.

"There were 200 cases scattered in 50 states, and it was picked up after the first 20 or 30 cases," marvels Besser. "We would never have detected it in the past. Never. To put that in perspective, in the average year the CDC [Centers for Disease Control] thinks that there's somewhere over 50,000 cases of E. coli O157:H7 disease in the United States. The vast majority of them don't get reported."

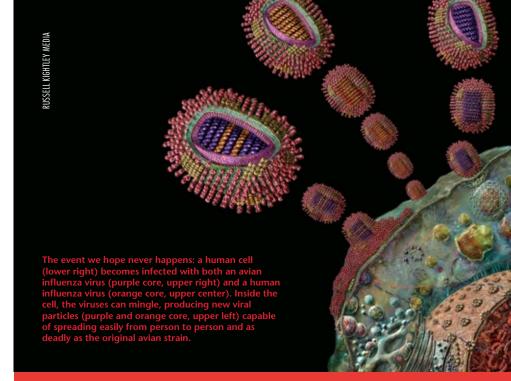
He says the CDC's report on the incident found that the E. coli originated on a cattle farm half a mile from the spinach field; the bugs were probably carried to the spinach by feral pigs walking through on their way to a water hole.

Now that we know where it came from, what does that tell us about how to stop another outbreak? Not much, says Besser.

"There's not a single thing we can tell that farmer to do to reduce the likelihood that his cattle will carry E. coli O157:H7. It seems to me that identifying him as a culprit in the outbreak is really not fair."

Although the strain that caused the outbreak was especially nasty, with a lot of sufferers requiring hospitalization, Besser thinks the panic that ensued was a bit overblown. He, for one, didn't stop eating spinach.

"I think people shouldn't bear unnecessary risks, but there are some risks we accept every day, like crossing busy streets or driving a car," he says. "To some extent, we can afford to worry about 200 cases of ill people out of 250 million, because we've got lots of resources and not very many other scary things to worry about. Throughout history, I presume that that level of risk would have been just ignored most of the time. And in most parts of the world now, it would be ignored."



WHAT ABOUT AVIAN FLU?

Some form of influenza sweeps the world every year, and every year, more than 30,000 people die of it in the United States alone. But every now and then a strain of flu emerges that is so much more deadly, so much more easily passed to others, that it threatens whole societies. The 1918 outbreak killed about 650,000 people in the U.S. and 20 to 40 million worldwide.

Today, health agencies are keeping an uneasy eye on a lethal strain of avian flu called H5:N1. So far, we've been protected by the virus's reluctance to infect humans and to pass from one human to another. So we wait, and we watch. Will H5:N1 be the next strain of flu that breaks out and becomes a scourge on human populations? Possibly, says WSU veterinary epidemiologist Tom Besser.

"There haven't been very many situations like this, where we've actually been attuned enough to see a strain emerging and spreading and persisting," he says. "We don't know how many times that might have happened, and it never did evolve into a pandemic strain. If it was all happening in Thailand or Indonesia [for example], for most of the 20th century it would have barely reached anyone's consciousness here.

"So we don't know if this is a uniquely dangerous situation, or if it might be one that's happened five times since 1918, and we just weren't in a position to know about it, to worry about it."

WILDLIFE AT RISK

Wild animals are a source of many pathogens that might infect us, but the reverse is also true: we and our domestic animals harbor diseases that can devastate wild populations.

The canine distemper virus, carried by domestic dogs, has decimated populations of lions in east Africa and harbor seals in Scandinavia. People have inadvertently caused the death of mountain gorillas (from measles) and chimpanzees (from polio).

Cattle imported to the horn of Africa in the 1880s carried a measles-related virus called rinderpest. Within 10 years, rinderpest had swept through the continent, afflicting gazelles, giraffes, wildebeest, and water buffalo. Carnivore populations plunged as their food supply shrank.

Rinderpest re-emerged at intervals during the 1900s, finally leaving for good when a vaccine against it was developed midcentury. Although only domestic cattle were vaccinated, the virus also disappeared from wildlife—showing that domestic cows were the "reservoir" from which the virus attacked wild species.



Land-use changes that bring people and livestock into contact with wildlife are exposing us to pathogens we may not have encountered before. And in an age of global trade and travel, one infected person or animal can carry a disease across continents.

In most parts of the world, the number of people who die from infectious diseases is beyond comprehension. Malaria alone kills about a million people every year, most of them young children.

"It just dwarfs what we're talking about," says Besser. Then he adds, "But you know, this bug [E. coli O157:H7] sometimes kills our kids. That's a terrible thing, even if it only happens once."

cientists at WSU and elsewhere have put in a lot of good work tracking pathogens and learning their ways. But even with all the progress of recent decades, we have just a fragmentary understanding of what we're dealing with and where the next outbreak might come from. It's a sure bet that other pathogens are out there, chugging along in their animal hosts and fully able to move into humans if they get the chance.

"Diseases often emerge in strange ways, often as a result of human activities that bring species together that don't normally come together," says ecologist Storfer. He describes the combination of events that led to an outbreak of Nipah (NEE-puh) disease in Malaysia in 1998-99. Over the course of a few months, the newly recognized disease afflicted 265 people with fever, headache, convulsions, and coma. It killed 105 and left many others with persistent neurological problems.

Storfer says the virus that causes the disease is carried by fruit bats, which themselves aren't much affected by it. As forests were cleared to make room for the expanding human population, the bats began to forage in orchards near human establishments, such as pig farms. The fatal chain of events sounds like a biological Rube Goldberg machine: a bat grabs a piece of fruit from the orchard; after taking a few bites, it drops the fruit within reach of the pigs; a pig eats it, picking up the virus from the bat's saliva on the fruit; the virus gives the pig a flu-like respiratory disease; when the pig coughs or sneezes, its human handler catches it.

"Humans cannot get it from the bat," says Storfer. "It has to go through the pig, mutate inside the pig, and then it's infectious to the pig workers. You have to bring bats, pigs, and humans all together in the same place in order for this thing to go from bats to humans. Because *you* could lick the bat saliva and not get it. It's got to go through the pig."

Tom Besser suspects the Nipah virus has spread to humans and domestic animals before, but not in such large numbers. Encroachments into forested lands, coupled with skyrocketing density of people and livestock, have created conditions that could allow the virus to attain epidemic proportions. The Malaysian government squashed its budding epidemic by killing nearly a million domestic pigs in the affected region. No cases of Nipah disease have been reported there since, but a few appeared in Bangladesh and India in 2001. That suggests the Malaysian outbreak might have been just a warm-up for a main event yet to come. Fruit bats range throughout south and southeast Asia, and everywhere they've been tested, they are positive for the virus; and human and pig populations in the region continue to expand.

The issue of diseases passing from wildlife and domestic animals to people is "one of the most important challenges we're going to face, I think, over the next century," says Storfer. Surveillance of humans and livestock is spotty; monitoring of wild species is nearly nonexistent. Nobody is really watching the wildlife from which new diseases might emerge. Even a disease that causes severe problems in wild animals can go unnoticed for years. How bad does an outbreak in wildlife have to be for someone to send up a flare and say, hey, we've got a problem here?

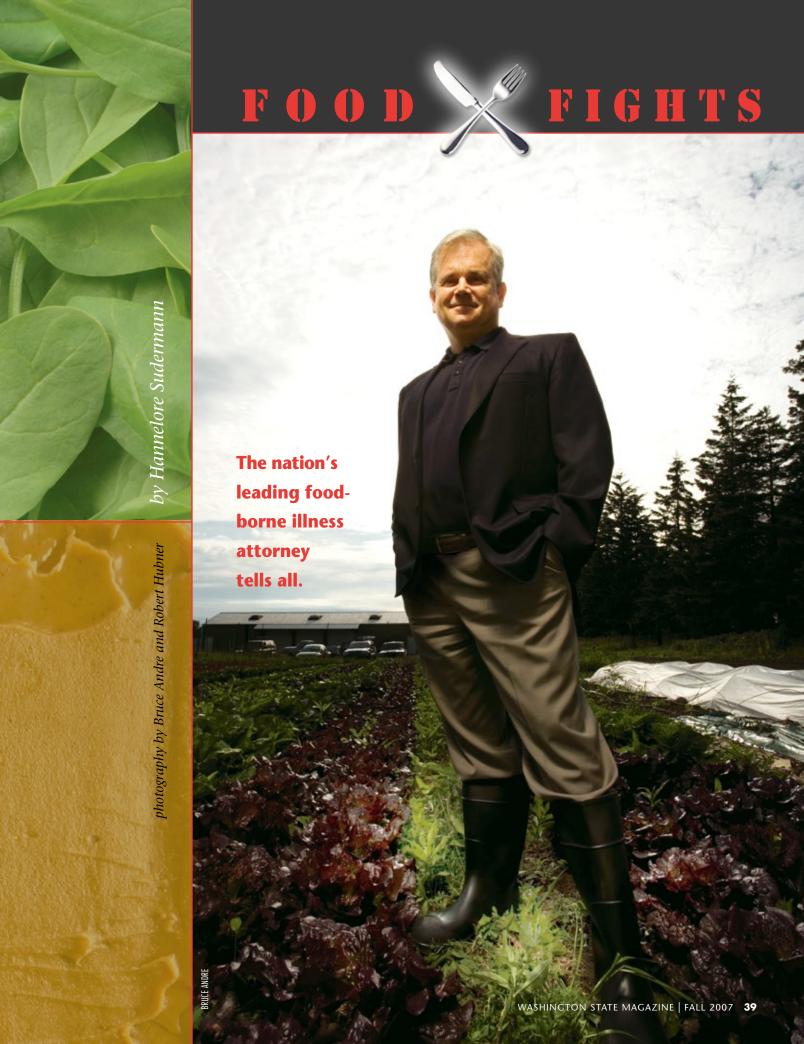
"That's the \$100 million question," says Storfer. "One of the concerns is this idea that there's a surveillance bias, that we're only seeing really nasty things, because then you see a big die-off of something. But we're not seeing a lot of the pathogens that jump hosts; that might get worse someday.

"How do you prepare yourself? I don't really know. You try to pick the one that's going to be the worst one, and do something about it."

>>

COMING UP

In a future issue, we'll show how WSU researchers are developing vaccines against some of the world's most devastating diseases.



ON A FALL DAY IN 1984, A KEEN YOUNG LAW CLERK TOOK OFF ALONE ON AN ERRAND TO COLLECT EVIDENCE FOR A CASE.

Since his destination, the Swedish Medical Complex, was perched just up the hill from the Seattle firm where he worked, Bill Marler decided to walk.

In his mid-20s, Marler wasn't going to be a clerk for long. He had plans to climb the ranks of the city's litigators and, eventually, run for public office. As the first Washington State University student ever to sit on Pullman's city council, he had already developed a taste for politics.

On the day of his walk, Marler's firm was defending a company against charges of selling asbestos products in the 1950s, knowing that they were hazardous. A man named William Kinsman had died of pleural mesothelioma, an asbestos-triggered cancer of the thin layer of tissue that lines the chest cavity and

covers the lungs. The disease can remain latent for decades and then spring into a virulent form, bringing shortness of breath, pain under the rib cage, a dry cough, and then blood, signs that the cancer is spreading into the lungs. Kinsman had been exposed, according to the suit, while working in the Bremerton shipyards. Marler knew the site, since he grew up on a small farm just 10 miles away.

As he hiked up Madison Street, he felt pleased with his life. He was sailing through law school and had plans to build a great career. He breezed into Swedish and asked for the Kinsman evidence.

To his bewilderment, he was handed a human lung—a pink and grey organ clearly visible inside a thick plastic pouch. "No one told me to bring something to carry it in," he says.

As he walked back down the hill, gingerly carrying the lung that for six decades had given life and breath to Mr. Kinsman, a single thought buzzed through his head: "I don't want to do this." With great relief, he delivered the specimen to the firm's medical expert and then tried to wipe the wonder from his mind. He knew that companies like the one his firm was defending deserved competent legal representation. And he knew that good lawyers, no matter which side they were on, were what made the system work.

He watched the firm's attorneys depose the victim's widow later that day, and heard her tearfully describe the agony of her husband's demise. "I'm sitting across the table from someone who had been married to a guy for 40 years," says Marler, recalling the scene. "He retires, and two years later he's dead."

Marler knew the answer to his quandary then: this was the wrong side for him.

IF YOU EVER WORRIED ABOUT GETTING SICK FROM FOOD YOU ATE

at a restaurant, about *E. coli, Salmonella*, hepatitis, undercooked meat, tainted spinach, unpasteurized fruit juice, or even toxic peanut butter, you've been in Marler's world. Remember Jack in the Box, source of the nation's first modern food-borne illness epidemic? In 1993 sick children filled Seattle's hospitals, and the city ran short of life-support equipment. The family of a very sick 10-year-old girl hired Marler. Amid the seizures,

strokes, and organ failure she was suffering, her doctors said that she only had days, at times just minutes, to live.

Marler, at this point 36, had moved to a firm that let him develop a practice litigating for plaintiffs, though the partners didn't think much money could be made in that direction. On the day Brianne Kiner's family retained him, he drove to the University of Washington Medical School and asked for everything the library had on *E. coli* O157:H7. He pored over the details of the deadly bacterium that can trigger a reaction

shutting down the kidneys, the pancreas, and the brain. This was one of the worst cases of food poisoning in U.S. history. None other in recent history had affected so many people so violently, and so quickly.

"It was all happening here in Seattle. The hospitals were like war zones," he recalls. "Kids lined up in the hallways sharing dialysis machines." When Bill got the case, he didn't even know how to say *E. coli*. After filling his head with the medical details of the disease, he knew more than any other attorney in Seattle. He filed a lawsuit on behalf of the Kiners, who had no means of paying their enormous medical bills. Using the media savvy he had developed on the Pullman city council, he called a television station to announce what he had done. Brianne became the public face of the *E. coli* outbreak, and within weeks his client list grew to more than 200.



In 1993 Bruce Clark worked on the other side of the Jack in the Box cases representing Foodmaker, the restaurant chain's parent company. He quickly noted how Marler stood out from the other plaintiffs' attorneys. "You sort out pretty quickly who is doing the work and who is along for the ride," says Bruce. "Bill was, probably more than any other attorney, a go-getter in terms of advancing the case." He was out visiting clients and doctors, understanding the fast food industry, studying up on the disease and the laws, trying to absorb it all. "Most of the plaintiff's attorneys to some extent were just lining up to enjoy the benefits of the ground that had been tilled before. Marler was actually out behind the plow." Marler also freely shared his findings and advised other attorneys on negotiating settlements.

Four children died in that outbreak. Brianne Kiner, Marler's client, survived, but only after spending six weeks in a coma and six months in the hospital. His efforts resulted in a \$15.6 million settlement injury settlement in the history of the state of Washington. The money is helpshe had to learn to walk and read again—and will also pay for a lifetime of medical issues, including diabetes and kidney problems, resulting from her

ROBERT HUBNER

E. coli poisoning. Marler also negotiated settlements of at least \$1.5 million for several other victims.

The mountains of work he had done with the Jack in the Box case made him an expert in food-borne illness, not only in terms of understanding E. coli, but the whole food production system. "This time I felt like I was doing the right

BILL MARLER The second of three children, teen in high school, when he wanted to eat off-campus, a violation of school rules, he staged a "lunch-bag rebellion" and urged his classmates to join him in boycotting the cafeteria. At 16, in the summer between his sophomore and junior years, he ran away from home. One Saturday when his parents were out, he packed his duffle and left town, hitching a ride over the Cascades. He called his folks when he got to Bridgeport, nearly 300 miles away, and announced that he wanted to find a job picking fruit and wouldn't be once in a while."

Most parents would have gotten in their car and dragged their kid home, he says. He asked them about it later, and they said they figured he had some level of responsibility and would survive the summer. "It was one of the best things

> had to get a job. I had to keep a job. And I had to work like I never worked in my life—and for Living and toiling alongside migrant workers, he got a sense of proportion, of society, and a better notion of what he wanted his life to apples, picking peaches, picking cherries, and follow-Canada, he got fired from jobs, kicked out of houses, and often

> I did in my entire

went hungry when he ran out of money. "I came home and I was a completely different person," he says.

After high school, he worked odd jobs and signed up for junior college. His classmates were older students with jobs and kids, who were trying to improve their lives through education. One day one of them looked at him and asked, "What are you doing here? Why don't you go to a

So he did. He loaded up his truck, collected copies of his transcripts, and made for Pullman. He came before being admitted—in fact, he hadn't even applied. To the shock of the admissions officer, he just walked in and said "Hi. I'd like to go to WSU." Luckily, the administrator sent him up to see Lou McNew, a crusty, affable academic advisor. McNew handed him an application and scheduled him to take the Washington Pre-College Test. "It was a Saturday, and it was just me and two football players in the room," says Marler. After breezing through the exam, he was admitted.

Marler looked up some of the guys from Bridgeport, sons of the orchardists he had worked for. They urged him to join their fraternity. One night over beers at the Spruce in Moscow, a few of them let slip the details and rigors of fraternity initiation. No way was he going to do that, thought Marler. At the next pledge meeting, he spilled to his housemates, figuring if they all refused to take part,

they could stop it. Instead, one of them informed on Marler, and he was asked to move out. "It was a good lesson in picking your battles," he says. "What you think is inappropriate, others might see as just part of the process." After he collected his belongings from the front lawn, he found an apartment and a summer job at the Bookie. Staying in town for the summer turned out to be a very good decision.

At the time, student-body president Mark Ufkes '77 and his friends were

on a mission to increase student involvement in local politics. Realizing that the City of Pullman neglected the needs of the students, Ufkes wanted his classmates to vote, and even to join the ranks of the city officials. He decided to encourage two students to run for the city council that fall. It might have been a good idea, but it wasn't an easy one. The first of his hand-picked candidates backed out of the primary. The late withdrawal left Ufkes and his friends desperate for a candidate, and everyone had gone home for summer vacation. Then he spied the 19-year-old Marler and quizzed him about his concerns for the community. "I remember thinking, he's articulate,

he clearly wants to get involved," says Ufkes. One afternoon while sitting poolside at the North Campus Heights apartment complex, he urged Marler to run.

Marler didn't think about his age and lack of experience, or that he hadn't even lived in Pullman for a year. He borrowed \$12 for the filing fee and signed up. He survived the primary simply by being the only challenger to the incumbent, longtime Pullman resident Crista Emerson. But once his name went on the main ballot, he woke up. He knew he'd have the student votes, but that wasn't enough. He needed the support of the townspeople to win. "I realized I had a choice to make," he says. "I could do nothing and ignore it, or I could actually work at it." So he walked all over town, knocked on doors, pounded signs into

yards, and handed out his home phone number so voters could share their concerns. He sought out debates and welcomed interviews. "Lo and behold, I was actually good at that," he says.

In the end, Marler didn't win the race. The incumbent lost it. Her disdain at having to run against a kid who came to debates in feathered hair and blue jeans worked against her, he says. Marler won the election by a 53-vote margin and became the first student to sit on Pullman's city council.



ROBERT HUBNER

"The thing about Bill, he wanted to do the right thing," says Ufkes. "From the beginning he had a passion for advocating for the community." First, with the help of council members Bill Gaskins '69 and Ken Casavant ('71 Ph.D.), he tackled a fair-housing ordinance to improve the quality of the town's rentals and to prevent landlords from discriminating based on race, religion, or sexual orientation. It had been an issue for the older students and a hotly contested concern for the Pullman community, and Marler grabbed it and ran with it.

"He was just a young college student at the time, but he had Pullman's interest at heart," says Gaskins, a professor

in WSU's pharmacy school. With Marler's help, the council became a progressive public body. Besides the fair housing ordinance, the council created the town's public bus system and reoriented the community to consider the concerns of the student population.

"I remember thinking, God, he's so young," says Ufkes. "But when he had an issue to decide, he went out and did the homework he needed to understand the situation."

Marler stayed an extra year in Pullman to complete his four-year term, something most of his fellow council members never thought a student would do, then moved on to law school at the University of Puget Sound before going to work at a large law firm in Seattle and becoming a trial lawyer.

IN 1996, JUST AS THE JACK IN THE BOX SUITS WERE WINDING DOWN. A NEW TOXIC FOOD CASE EMERGED.

Odwalla, a California-based company that billed its products as nourishing for the body as well as good for the earth, had sold fresh apple juice tainted with E. coli, the same deadly strain that nearly killed Brianne Kiner. The bacterium was traced to contaminated apples that had been collected off the ground. A 16-month-old child died, and 70 adults and children were sickened. Marler's phone started ringing. He thought Odwalla would take a lesson from Jack in the Box and mediate quick settlements instead of suffering the negative publicity of a lengthy dispute. He was wrong. The company and its attorneys wanted to fight, says Dennis Stearns, who met Marler through the Jack in the Box case. Marler had moved to a third firm, but his partners had no experience in food-borne illness, nor had they any interest in investing the firm's resources in it. Marler needed someone sharp like Dennis who knew the field and would share the burdens of research, brief writing, and fighting the case. Their joint efforts on the Odwalla case led to the idea of creating their own firm, one that focused on food cases.

In 1998, when Odwalla wrapped up, bringing about \$12 million to the families of five small children who were poisoned, Marler and Stearns were itching to go into business for themselves. They brought Bruce Clark to their team and launched Marler Clark. Their mission: to be the nation's leading law firm litigating food-borne illness cases.

They struggled through a lean first year. Food-borne illness was still a fairly new field. Marler had to write personal checks to the firm so the staff could be paid and the partners could cover their mortgages. He took on a variety of personal-injury suits to cover the bills. "It was scary," says Dennis Stearns. "We had a pretty good book of business, but the nature of this business is you don't get paid until a case settles." That

Why Washington?

In the past two decades Washington has been a hotspot for foodborne illness. It started in 1993, when E. coli-contaminated meat from Jack in the Box put Seattle at the center of one of the worst food poisoning outbreaks the country has ever seen. A decade later news of a Washington cow infected with bovine spongiform encephalopathy, the first mad cow disease case in the country, again put Washington in the limelight for issues of food safety. And even in summer 2007, with the latest E. coli scare linked to beef from United Food Group, our state was one of several where people who had eaten the meat were diagnosed with E. coli.

Why is Washington at the forefront of food-borne illness?

"I think part of it is bad luck," says Bill Marler, whose years as one of the nation's leading food-borne illness litigators make him an expert in the matter. "It's a combination of bad timing and a good health department." Other people in other states get sick, but Washington is able to diagnose and pinpoint the sources of illness more effectively, he says.

How do you know if your food made you sick?

Diarrhea? Fever? Abdominal pain? It could be the flu. It could also be campylobacteriosis, the most common bacterial food-borne illness. Usually only 3,000 cases are reported to the Centers for Disease Control and Prevention annually, but many more exist. Estimates are that between two and four million cases occur in the United States each year. They could come from undercooked chicken, shellfish, mushrooms, or eggs. In most cases, the disease will take two to 10 days to show up, and should last no more than a week.

Though it's the most common, there are others to look out for, including E. coli, botulism, and listeria. These diseases can cause long-term complications, and sometimes even kill. If you see blood in your stool, have double vision, droopy eyelids, and/or trouble speaking or swallowing, seek help immediately.

If you think your food has made you or your family sick, the U.S. Department of Agriculture has this advice:

- . Save the evidence. If a portion of the food is available, wrap it up and freeze it. Save all the packaging material and cartons. Note what type of food it is, the date, the time you consumed it, and when you started feeling sick.
- ek treatment. If the ill person is a young child, elderly, pregnant, or has a weakened immune system, seek medical care immediately. Also, if the symptoms are severe or prolonged, contact a doctor.
- 3. Report the illness. If you suspect the food served at a restaurant or large gathering was tainted, or if the tainted food is a commercial product, call the local health department or your county health agency. A list of Washington county agencies is available on the Washington State Department of Health Web site at:

"Most people who get a food-borne illness never figure out what it is that made them sick," says Marler. Others who have their suspicions often fail to act. "The only way to change bad foodservice behavior is to catch it," says Marler. "It's the only way to loop back to the company and say, 'You did a bad thing."

first year they won a \$4.6 million settlement against the Finley School District in the Tri-Cities, where 11 elementary school children contracted *E. coli* from undercooked taco meat. But the bulk of the award didn't come until 2003, when the school district finally exhausted its means of appeal.

Nowadays, business is on the rise. Marler points to the latest outbreaks of *E. coli* in fresh spinach, which has been linked to five deaths and more than 200 illnesses, and *Salmonella* in peanut butter, which affected more than 400 people in 44 states. Marler's days are lot like early Jack in the Box—so busy, so many victims.

Marler Clark dominates one-half of the 66th floor of the Columbia Center, Seattle's tallest office building. It's Friday, and Marler, in standard partner attire—shorts and a polo shirt—stands at the window with a phone in one hand and double nonfat latte in the other. He's up so high, he can stare the Olympic Mountains right in the face.

But he's focused on his call. He's talking about his trip to

Georgia three days earlier to tour a ConAgra-owned peanut butter plant, the source of the Peter Pan and Great Value Salmonella outbreak reported last February. The plant officials thought he would send an employee to look around; instead, to their dismay, he showed up in person. During the tour, he noted where it looked like someone had shot BBs into the factory ceiling to drain rainwater from the insulation. He also wandered away from the tour and into a room where the walls had holes to the outside and raccoon tracks through the dust.

A few minutes after describing the scene in Georgia, Marler gets

another call. This time it's from a family poisoned by the peanut butter. The wife has to have part of her lower intestines removed, and they don't have any money, says Marler, as he spies the phone number on his cell-phone screen. "I'm trying to get the ConAgra to advance them enough prior to the settlement to pay their hospital bills."

Now, instead of fighting for firm resources and struggling to convince the senior partners that his plaintiffs' cases are worth pursuing, Marler *is* the senior partner. Instead of waiting for the news to tell him about the outbreaks, he's out investigating for himself. Marler doesn't just go to the library to do his homework. He goes to Salinas Valley (where he and his investigator were able to trace the source of the spinach outbreak before the FDA even issued a consumer warning), and Georgia, and Oklahoma (where ConAgra is headquartered). His firm has an epidemiologist on staff who helps determine whether a client has a legiti-

mate complaint, and advises the lawyers on cases. And Marler has a friend, a former Lewiston journalist, whom he sends around the country to investigate when outbreaks happen.

Marler's firm also has a public-service mission. That first year, the partners formed OutBreak, a nonprofit consulting firm dedicated to training the food industry in how to prevent outbreaks. "Lawyers tend to take a lot of personal and political hits for being ambulance chasers ... money grubbers," he says. "I'm sensitive to that." By sharing cautionary tales of past cases, the partners hope to scare food producers into prioritizing food safety. Marler routinely challenges them to "put me out of business."

Right now our food-safety system works against food safety, says Dennis Stearns. For example, if restaurants had paid sick leave, more food workers wouldn't be passing illness on to customers. "Right now under some versions of the food code, managers at the beginning of each shift are supposed to go around and ask, 'Does anyone have diarrhea?' And

people are supposed to raise their hands," says Dennis. "Even if you're on your death bed, you're expected to find someone to work your shift. The whole thing is stacked against people staying home and not working."

By sharing their expertise, the lawyers are fully aware they are providing good PR for the firm. But they also hope to prevent bad food handling decisions. In April, Marler flew to Washington, D.C. to attend congressional hearings where some of his clients were testifying about the need for better inspections and more regulations, and to deliver writ-

ten testimony about the safety of our food supply.

Marler has never had a case where he could say it just happened. "There is always a situation where a company has made a decision not to do something or to do something, and now they have to deal with the consequences," he says. With Jack in the Box, the company had already heard customer complaints that the burgers weren't thoroughly cooked, and the Washington State Legislature had mandated cooking the meat to a higher temperature. But the company wouldn't let go of its quick-cook times. That was the mistake, says Marler. In the case of Odwalla, the company had heard from customers made ill by their juices. Even worse, after touring the California plant and citing plant sanitation concerns, the U.S. Army had rejected a proposal to sell Odwalla juice at its commissaries. All this happened prior to the outbreak, says Marler, but the company continued to sell juice to pregnant women and children.



"There's never a situation where some nice, decent businessman just got caught making a tiny error," says Marler. "They had the information. They didn't do anything. And people died."

DINNER IS A LIVELY TIME IN

oldest daughter, Morgan, is away at a LaCrosse game. Their middle daughter, Olivia, shares in our conversation over generous plates of grilled salmon and asparagus. She tells

E. coli from a kiddie pool. He came home to find a note on the door that his wife and girls were taking advantage of a warm afternoon up at the neighborhood pool. "I ran up there as fast as I could and yelled 'Get out! Get out!'" says Marler, waving his arms for effect.

A smile flashes to Julie's face, then it fades a little. It doesn't make sense, she says. You try to do everything right. You give your kids exercise and food that's supposed to be good for them, but even then you may be placing them in danger.

We stop the conversation when the youngest Marler,



about traveling to Washington, D.C., with her dad last year and sitting patiently while he told federal and state health inspectors about the value of their reports in helping the cases of severely infected victims and tracing chronic foodhandling problems. The Marlers all talk about how much Bill is on the road, either chasing down the facts of an outbreak or speaking at food-industry meetings. Then Julie brings up the time a few years ago when Marler flew to Georgia to visit a water park where more than two dozen children caught

Sydney, flies through the living room with her jump rope. Marler praises her new skills.

"I'm not suing people for fingers in the chili or hot coffee in their lap," he says. "Most of the time now I'm representing kids and people who are really severely injured."

Money is a big part of it, he admits. "With money I can help change people's lives. I can assure their kids health care for the rest of their lives, a college education, an ability to pay for future complications. I can make sure that they're taken care of."

Heidi B. Stanley '79

Vice Chair and Chief Operating Officer, Sterling Savings Bank

Directs an \$11 billion financial institution

Ranked 13th "Most Powerful Women in Banking" by *US Banker* magazine

Loves to play golf with her husband, Ron

Life Member of the WSU Alumni Association

"Ron and I have been Life Members for over 20 years. We applaud the many innovative programs the association has recently launched to make membership even more meaningful and how the WSUAA provides genuine opportunities for alumni to make a positive difference for WSU. It's no wonder we have the fastest-growing alumni association in the Pac-10."



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WASHINGTON STATE UNIVERSITY ALUMNI ASSOCIATION



Home-Court Advantage Shelley Patterson

'84 Criminal Justice



HEN SHELLEY PATTERSON GRADUATED from Washington State University in 1984, she thought her basketball career was over. A guard for the Cougar women's basketball team, she was among the state's all-time leaders in assists and steals. But in 1984 there wasn't much work for a woman in basketball. So she started a career in computers. That didn't last long. In her free time she volunteered with a team at a local community college. That, and her persistence in applying for open positions with college teams, led to her first professional job in NCAA basketball in the mid-1980s. Since then, her coaching career has taken her into the American Basketball League and Women's National Basketball Association, where she was head coach of the Chicago Blaze. Last spring, she returned to Washington as the new assistant coach of the Seattle Storm. One morning after practice at the Key Arena, she sat down with Hannelore Sudermann and shared some insights.

Follow your interests.

After college, I was working at Arizona State on computer operations. I ended up working the night shift. Computers back then weren't anything like computers now. You had to put the tapes in, you had the wheels and the cards.

I was doing OK, but I missed basketball. I met this guy named Bike Medder, and he was the coach of the Scottsdale Community College team. I would go down there a lot and just kind of help out. He helped me find the NCAA newsletter and encouraged me to start looking up coaching positions. I applied to a lot of different places. I have lots of rejection letters—Auburn, Georgia.

It's OK to start small. Just keep moving.

I ended up landing on a little school called Eastern Michigan University. This lady calls me, Cheryl Getts, the coach there. She was what I needed at that time. She brought me out to Ypsilanti, Michigan, sight unseen. That's how I got started. I was there for two years. After that I ended up landing a recruiting coordinating job at Indiana University. Then I went to Ohio University, same position. I finally landed in the Atlantic Coast Conference for Wake Forest for about five years.

Don't quit, change gears.

After one too many recruiting trips, I was ready to quit college basketball. I was at the University of Dayton at the time, and trying to keep Tamika Williams in Dayton. She went to the University of Connecticut instead. After all that work and after that failed, I just decided I'm tired of college coaching. But then I got a call from Anne Donovan [now head coach for the Seattle Storm]. She was in Philadelphia at that time [coaching the ABL's Philadelphia Rage]. That's when I started working with professional teams.

Seek friendship over rivalry.

I have worked with former NBA guys. They're always skeptical about all this player interaction. But we always wait for the other team to come on the court to practice. And we always make sure we're going to go out to eat together after the game.

Most of these women have played with each other either here or overseas. And I've coached probably half of them. If I don't know who you are, I'll try to find you and at least introduce myself to you.

Competing is cathartic.

I think sometimes sports helps you. It gives you a moment to take your mind off of whatever's bothering you. For example, 1999 was a hard year. Kim Perrot [a player Patterson knew from the Houston Comets] died, and our team lost a player because of an eye injury. But having basketball helped. And at the end of the day, you go back and reflect in your room. You have your teammates to comfort you. It's like a family.

Find a way.

I almost wish the league had been around when I played. I think I could have made it. I'm glad that right now there's an opportunity for these players to stay here. I thought about going overseas, but for me at 5-foot-4 and a point guard, overseas we're like a dime a dozen. Being able to stay at home and play basketball would have been great. My love for basketball is the same, but I would have been able to play a bit more and make money from something I really love. Instead of being a player, I ended up coaching and being involved that way.

Get motivated.

As a coach, you try to be involved as much as possible. If we have to sit down and have a conversation, talk about somebody struggling with their shot, I try to, in a fun way, encourage them. I think the hardest part at this level is really motivating the players. They've been through this. It's old to them. You have to figure out what's going to motivate them. I'm so new to this team, I'm just figuring that out.

Moving is easy. Packing is hard.

I've moved around a lot. Now, though, I know how to pack. In Charlotte, two months before I was going to leave, I started packing.

It's always in the back of my mind: Someday, I'm going to have to move out of here.

Make the most of your time.

Something that's appealing to me about the WNBA is that there are two seasons. I know that from approximately March through September I'm going to do this job. Then in the down time I go to a place called Harbour Island in the Bahamas. A friend of mine owns a hotel and restaurant and a beach house there. I've helped my friend build her house. The thing I like most is the bartending. I have a chance to meet some very interesting people ... and I've created some more WNBA fans.

Jim Torina

Playing Well with Others

OTHING SHORT of the opportunity to make the world a better place while making a lot of money could have lured Jim Torina '84 out of his retirement. He'd already made a fortune building high-end homes around the Puget Sound and was happily surfing in Mexico.

Torina wasn't about to give up his hardearned surfing for just any tantalizing deal. But this was different.

First, here was this clear need: According to a report from the Institute of Medicine of the National Academies, medication errors harm at least 1.5 million people a year. The medical costs of treating drug-related injuries occurring at hospitals alone amount to at least \$3.5 billion annually.

The solution to this problem was correspondingly clear: Track the drug, from its entry into the hospital pharmacy's inventory to the moment the patient ingests it, with bar codes.

And get this: No one else was doing it.

Torina got the idea from Tom McCarthy,
who had worked with a large drug distributor
and apparently knew a need when he saw one.

"When I met him," says Torina, "we were in a hospital room with his mother. There



MATT HAGEN

were posters and wristbands all over the room, 'don't give her this med, she reacts badly.' Twice while I was there, they tried to give her that med."

Torina hung up his retirement shoes, as he puts it, joined with McCarthy to start a company called Talyst, and ponied up the money to operate for a year.

That was five years ago. Since then, the clear need and its solution have translated into Talyst's growth of 300 percent a year, four years in a row. That quick growth has given Talyst a strategic advantage, enabling it to keep competitors at bay. Torina hopes to continue that rate of growth, without having to go public.

Toward the end of 2006, Talyst had 112 employees and received a \$20 million cash infusion. Torina planned to add another 120 employees this year. He plans on 1,000 by the end of the decade.

Talyst's success is based largely on computerized tracking and record keeping, eliminating wherever possible the chance of human error.

Built on intelligent software, the Talyst system comes in various forms, or rather, stages. A complete system combines the managing software with automated storage and retrieval. A machine in the pharmacy automatically dispenses a patient's daily medications sealed in

a plastic strip in the order they are to be taken, each marked with a bar code.

Back in the patient's room, the nurse uses a portable scanner to record the single-dose medication, then scans the patient's wristband to make sure the bar codes match, and the record is complete. The system also provides inventory control and just-in-time ordering as well as security.

"Patient safety, FDA regulation, cost benefits that are going into place, pharmacist shortage, supply chain requirements, 16 percent of hospital budgets now in drugs all these planets just lined up right in a row for us," says Torina.

In 2004, the FDA mandated that every drug going to a patient's bedside must have a barcode on it. Problem was, the manufacturers didn't have the technology to put a barcode on every pill. As a result, they simply pulled 30 percent of their drugs from the market.

"The magic," says Tim McMenamin, Talyst's vice president for marketing, "has been putting the barcode on each single unit of use. And that's really where we snuck into that market."

It's not as if no one else recognized the obvious opportunity, though Talyst has only one major competitor. But that competitor's components do not match well with other

Jim Torina '84 and Talyst have achieved phenomenal growth in the field of patient safety. "I'm not a pharmacy guy. It's pure logistics.... We're trying to get people better through process management."

systems within the hospital. And there's the competitive advantage, says Torina.

"We play well with others."

"Hospitals have made this huge investment in systems, pharmacy information, wholesale ordering, bedside scanning systems, et cetera," says McMenamin. Talyst connects them.

Given the fact that there are more than 40 different bar code systems in operation, coordinating them with existing hospital inventory systems and so forth is no simple task. Again, Talyst's system has the advantage of interpreting and converting those bar codes.

Torina's enthusiasm for his venture is infectious. He is clearly very pleased with its success. And with himself. But his satisfaction is disarming rather than off-putting. This is someone who knows exactly what his talent is.

"I'm not a pharmacy guy," he says. "It's pure logistics. We're not trying to make people well. We're trying to get people better through process management."

Torina had already begun to hone his management skills while at Washington State University. As a sophomore, he joined the Northwestern Mutual Life College Unit program and was directing it by the time he was 20. Three years in a row, he led the WSU program to top production honors and finished as the #1 manager in the country. At the same time he was platoon leader in the U.S. Marines PLC program.

Talyst's next move stretches Torina's grin even further. The company has honed the efficiency of its system on the hospital and long-term care markets. By the end of 2006, it had installed systems in more than 200 hospitals. But even larger is the home market.

"We manage the 11 prescriptions the average 65-year-old is on and dispense in order, as you're supposed to take them," says Torina.

"We've got a simple goal," he continues. "Forty to 50 million people on our machines in 10 years, all paying 20 to 50 bucks a month."

—Tim Steury

Marilyn Conaway

Charting New Waters



EN YEARS AGO, as Marilyn Eylar Conaway ('56 Hist.) rowed an inflatable boat on an Alaskan lake, she pictured herself as a girl working the oars of her father's handmade boat.

The thought recalled the simple joys of an idyllic childhood in Grand Coulee, where her father had helped build the dam. But both of Conaway's parents and three of her six siblings had since died, her husband Gerry's heart was faltering, she herself had heart disease, and she was about to end a storied career in education.

That day, memory became mission: Conaway didn't want to rock a chair; she wanted to row a boat.

"She doesn't know that things can't be done," says Sharon Clawson, a fellow teacher who in the 1970s watched Conaway help establish one of Alaska's first alternative schools.

Since that day on the lake, the woman who charted new waters in Alaska's schools became one of the state's first senior rowers to medal in national competitions. Before the current season, she had amassed 10 medals in races from the Moose Nugget Miler in Anchorage to the World Masters Games in Australia.

Conaway grew up in an era when most girls

didn't play competitive sports. She swam, skied, rode horses, and led school cheers, and was still active when a heart attack struck at age 35. But when she took up competitive rowing at 63, she was out of shape, having suffered angina throughout her life.

She became the oldest member of the

Anchorage Rowing Association, which formed in 1998 with strong Washington State University ties and some of the school's used equipment. Three younger alumni-all competitive rowers in college-boosted Conaway's development as a rower: Andi Day ('91 Hist.), Marietta "Ed" Hall ('91 Fin.), and Shannon Lipscy Jensen ('95 Nat. Resource Sci.).

"Every year she got fitter and stronger and better," says Day, who with Jensen was one of Conaway's early coaches.

As a novice, Conaway was so determined to compete in her first race that she trained daily on rowing machines in Seattle, where Gerry awaited a heart transplant. The rest of her eight-woman crew remained in Anchorage until she joined them for Seattle's Frostbite Regatta.

Conaway was beached after she rowed one of her best competitions, the 2005 World Masters Games in Canada. Two "preheart attacks" forced her to withdraw from the prestigious Head of the Charles Regatta in Boston that fall. She rowed again last summer but succumbed to clogged carotid arteries. After two surgeries, she was back on the water this past June.

"Seeing Marilyn row, that's the most gratifying thing about starting this team," says Hall. "It's not like it's been easy for her to row. She could've had a million great excuses to give it up."

Ilone (Long) Lee ('57 Sp.; '63 M.A. Elem. Ed.), a fellow WSU cheerleader, knows her friend doesn't want excuses. "She'd get a bee in her bonnet and go after it, and it would

happen," says Long, recounting how Conaway transformed the WSU squad as "yell queen" during her junior year. As a senior, Conaway was elected student body secretary.

From her teens through a master's degree from Columbia University, Conaway worked 13 summers as a waitress at the Green Hut below Grand Coulee Dam. She credits that, along with her parents' influence and WSU leadership opportunities, with honing her ability to work with people.

During her first teaching job, at Bothell High School, she concluded "that the world would be a better place if more students were in charge more of the time." Under her direction, Bothell students attracted majorparty gubernatorial candidates to the state's first mock political convention. Bothell's second convention also brought Jackie Robinson, the first black player in the major leagues.

Similar successes followed in Alaska. In the 1970s, she teamed with a group of parents and children to found Steller Secondary School in Anchorage. With Conaway at the helm, Steller students became stellar learners with greater control of their educations.

Clawson, a Steller teacher, remembers Conaway being "undaunted" by opposition to the alternative school and a narrow board approval of four to three. More than 30 years later, Steller thrives as one of America's Blue Ribbon Schools. Alumni include Anchorage mayor Mark Begich and folk singer Jewel.

Conaway went on to lead innovative programs elsewhere in the district, win numerous professional awards, and retire as principal of Alaska's largest high school. Throughout, she never wavered in her belief that people who make more decisions become better learners and leaders. Some lessons don't end upon graduation—or retirement.

"You can develop a new interest or start a new project at any time in your life. It doesn't matter when it is," she says. "The more you do after you qualify for AARP, the better off you are.""

-Eric Apalategui

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CLASS NOTES

1940s

C. Stanley Locke ('46 Mus.) is now known as columnist Ormly Gumfudgin for Entertainment Today of Los Angeles. He is being filmed in a documentary, Ormly Gumfudgin—A Living Obituary, by filmmakers who recently graduated from University of Southern California. Ormly has released a CD of his bazooka playing, written a children's book called The Littlest Jingle Bell, and helped found the World's Championship Chili Cookoff, which he has attended annually for 40 years.

1950s

Marvin Roy Reed ('52 Wildlife Biol.) is featured in a new book titled. Voodoo Warriors. Several of his missions as an RF 101 Voodoo Recon pilot in 1965 in Vietnam are discussed in the chapter titled, "The Great SAM (Surface to Air Missile) Hunt." Reed now lives in Orofino, Idaho.

Roger C. Smith ('57 Hort.) is retired after 25 years as a salesman and branch manager for Wilber-Ellis Co., in Spokane. He'll play some golf, travel, and enjoy the fruits of his labors.

George Forbes Jr. ('58 Bus.) announced his resignation as chairman of the Metropolitan Exposition Recreation Commission (MERC) of the Metro Council in Portland. Forbes has spent more than 40 years in the hospitality industry, and six as the MERC chairman.

Uriah Newton Orr ('59 Mining Engr.) has spent the last two years writing The Last of the Horse Soldiers. The recently published book tells of Orr's life after joining an ROTC cavalry unit in Arizona and, during the Second World War, getting transferred to the Corps of Engineers. His book is about his service to his country, especially in Normandy, where he was in charge of engineer intelligence as the Americans pursued the German troops back to Germany.

1960s

Denise Byrnes ('68 F.A.) retired after 37 years in art education. She moved back to southwest Washington and can see the WSU Vancouver campus from her deck

Suzanne D. Lonn ('68 Engl., Ed.) is working on her second novel. A wife, mother of two, and grandmother of three, she taught high school English until retiring to Wilbur, Washington, and settling in to write. She self-published her first book, Game of Hearts, in 2003. It is a fictionalized version of her own adoption in 1946 by a single woman in rural Washington. She also enjoys reading, photography, gardening, and travel.

Patricia Scott ('68 Gen. Stud.) spent three years as a doctoral academic counselor for the University of Phoenix. She is now a doctoral mentor, shepherding learners through their dissertations.

Daniel M. Blake ('69 Ph.D. Chem.) received the H.M. Hubbard Award for 2006 at the National Renewable Energy Laboratory in Golden, Colorado. The award was for his sustained contributions at the lab, where he is a principal scientist, to renewable energy technologies and their scientific underpinnings.

Lenny Kanner ('69 Police Sci.) has retired in California. He hopes to visit WSU soon to see the campus after graduating 38 years ago.

Frank Nickels ('69 D.V.M.) has been inducted into the International Equine Veterinarians Hall of Fame. Nickels is a senior on-staff surgeon in the largeanimal clinic at the Michigan State University College of Veterinary Medicine. He pioneered numerous procedures now considered standard practice, and mentored many now-eminent veterinarians. When not in surgery, he often does consulting for cases nationwide.

1970s

William E. Anderson ('72 Bacteriol. and Pub. Health) retired from the FBI in March 2007 at age 57 after a career of more than 23 years as a special agent. He lives in Edmonds.

Dennis Bunday ('73 Bus. Admin.) was named Portland, Oregon's public CFO of the year by the Portland Business Journal. As CFO of Williams Controls, manufacturer of foot pedals for large vehicles, Bunday led the company's financial comeback from near-bankruptcy in 2000 to having net sales of \$9.6 million in fiscal 2006. Bunday was also recognized for his efforts supporting the Portland Rose Festival through raising funds, building floats and displays, and acting as parade marshal.

R. Timothy Rice ('77 Pharm.) was named president and CEO of the fivehospital Moses Cone Health System. He is on the North Carolina Hospital Association Board and is a fellow in the American College of Healthcare Executives. Rice ran his sixth marathon in November 2006.

Sid Gustafson ('79 D.V.M.) is now professor of equine studies at the University of Montana-Western, where he is also program director of the Natural Horsemanship Program. His second novel, Horses They Rode, was published last fall. See wsm.wsu.edu/bookreviews/ alumni/horses.html.

1980s

Karl Schmidt ('81 Speech) has received a silver Telly award for his most recent documentary, During the War Women Went to Work. You can see it online at www.wwiihistoryclass.com. Schmidt works for Bristol Productions Ltd., a digital media production company in Olympia.

Glenn Williams ('82 Bus. Admin.) is vice president of development for the Colonial Williamsburg Foundation. Lori (Lee) Williams ('82 Clothing and Text., '89 M.B.A.) is a product licensing manager for the foundation.

James Dougan ('83 M.S., '85 Ph.D. Psych.) is a full professor of psychology at Illinois Wesleyan University. He has been a faculty member at IWU since 1990.

Rick Nishino ('83 Arch.) is a principal at Weber + Thompson architecture firm in Seattle. He oversees the construction administration of projects, including high-rise and mid-rise residential and commercial developments. He has been working in architecture for more than 20 years.

Wolf Saar ('83 Arch.) is a principal at Weber + Thompson architecture firm in Seattle. He oversees numerous mixeduse projects in Seattle and elsewhere. He is on the board of the Seattle Chapter of the American Institute of Architects and led the National AIA Continuing Education Audit Review Committee. He is also an active member of the WSU School of Architecture and Construction Management Professional Advisory Board.

Robin Collins ('84 Math, Phys.) is a professor of philosophy at Messiah College in Grantham, Pennsylvania. He joined the private Christian college in 1994 and helped develop the philosophy major there. His areas of interest include science and religion.

Bryan Corliss ('86 Comm.) received a master of science degree from Columbia University, after completing a year as a Knight-Bagehot Fellow in business journalism. Corliss recently received a national Best in Business Award for project reporting from the Society of Professional Business Editors and Writers, for his reporting on Boeing for the Everett Herald in 2006.

Colleen Crook ('86 Ed.) graduated summa cum laude with a M.S.B.A. from San Francisco State University on May 25, 2007. She is the winner of the Distinguished Student Achievement Award and a member of Beta Gamma Sigma.

William Warren ('88 Gen. Ag.) was awarded the Eisenhower Fellowship for Agriculture and recently completed a study of policy developments, technology, and trade of biodiesel and renewable fuels in Austria, Germany, and Belgium.

Andy Bronson ('89 Comm.) was named the National Press Photographers Association's Region 11 Photographer of the Year for 2006. He is currently working at the The News-Review in Roseburg, Oregon.

1990s

Randy Dickey ('91 Comm.) and his wife, Heather Gardner, are proud to announce the arrival of daughter Finley Ella in March, 2007 at Evergreen Hospital in Kirkland.

Sheldon Oshio ('91 Ed.) was appointed principal of Waimalu Elementary School in Pearl City, Hawaii, January 2007. Previously he was the three-year principal of Makakilo Elementary. His first teaching job was in Tacoma.

Steve Jacobson ('92 Engl.) graduated from the University of the Pacific in May 2007 with a doctorate in educational administration. He lives in Sacramento, California.

Chris William Parkinson ('95

Crim. J.) provides care and training to developmentally disabled adults in a residential habilitation center. He cares for 16 clients. He also helps care for his mother, who has Parkinson's disease, and his father, who has heart problems, and volunteers with the American Red Cross disaster team. He lives in Kirkland and keeps up his ties with WSU and the Phi Kappa Theta Fraternity.

lennifer Miller Brown ('96 Child. Consumer, & Fam. Stud.) with co-author Pam Hopkins, is anticipating the summer '07 release of her first book, What Angry Kids Need: Parenting an Angry Child Without Going Mad, available from parentingpress.com.

Dave Erickson ('96 Gen. Stud.) is weekend anchor/reporter at KXLY-TV (ABC) in Spokane. He has 10 years experience in broadcasting and worked previously at KOIN-TV (CBS) in Portland, Oregon.

losh Huff ('97 Bus.) and his wife, lessica (Flink) Huff ('05 Ed.), celebrated the birth of their son, Randy, August 2006. Josh Huff is personal lines manager at Inland Insurance in Spokane.

Sandra (Wilson) Coyer ('99 Comm., Ed.) received the Puyallup School District Secondary Teacher of the Year award for 2007. She teaches English and journalism at Puyallup High School, where her newspaper students recently won a national fifth place for newspapers of 13-16 pages at the Journalism Education Association/ National Scholastic Press Association spring conference. Coyer lives in Maple Valley with her husband, Brian Coyer ('99 Crim. J., Soc.).



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Richard Cody George ('99 Bus. Admin.) opened a winery, Vintage Hill Cellars, in Spokane last spring.

Julie Stern ('00 Comm.) launched PandaShrimp Media Company in Anacortes. She also does on-air reporting on KGMI NewsTalk 790 in Bellingham.

Robert Casey ('01 Phil.) and his wife, Patricia Casey ('02 Genetics), started a successful electrical contracting business in Kitsap County, called Home Tech Wiring, Inc.

Angela (Gomez) Campbell ('02 Ed.) and Shaun Campbell ('01 Soc. Stud.) welcomed daughter Jenna Christine May 2007. Their first child, Lauren Marie, was born November 2003. They live in Longview.

David Sampson ('02 Bus. Admin, '04 M.B.A.) has left Las Vegas after working three years at MGM Mirage Corporate. He has accepted a job as an IT manager for the new MGM Grand Macau Casino in China

Charlotte Kelly ('03 Comm.) and Justin Lewis ('04 Comm.) were married in March in Spokane. They both work in advertising and live in Dallas, Texas.

Anna (Hewitt) Unruh ('04 Comm.) celebrated the birth of her son, Byron Scott, October 2006.

Delonna Carillo ('05 Nursing) graduated from University of Washington, Tacoma, with a Master of Nursing degree. She lives near Tacoma.

Abbie DeMeerleer ('05 Ag. Comm.) and husband Chuck DeMeerleer ('01 Ag. Econ) welcomed daughter Grace Miriam March 2007. The couple resides

Justin Michael Read ('05 Crim. J.) works at Google in Kirkland and is interviewing for a career in law enforcement. He has taken to running marathons and can be easily spotted, thanks to the "Go Cougs" and "WAZZU" slogans he writes with permanent markers on his arms and legs. During races his fellow runners often encourage him by calling out "Go Cougs!"

Brandi Visker ('05 Bus. Admin.) has completed her master's degree in education at Vanderbilt University in Nashville, Tennessee.

In Memoriam

Clarence "Casey" Kasline ('31 Chem.), 95, February 11, 2007, West Caldwell, New Jersey.

Vernon W. Towne ('32 Pol. Sci.), 96, February 27, 2007, Seattle.

Roy Irving Carriker ('36 Ed.), 93, May 11, 2007, Kennewick.

Albert Randle Hansen ('37 Bus. Admin.), 92, January 2, 2007, Springfield,

Genevieve Monson Klovee x'38, 91, March 3, 2007, Seattle.

Richard C. Black ('39 Mech. Engr.), 94, February 14, 2007, Kirkland.

Albert L. McAllister ('39 Bus. Admin.), 89, June 3, 2007, Seattle.

Elton Ross "Blaze" Blazier x'41, 87, March 4, 2007, Spokane.

Alvin J. (Babe) Duris ('41 Ag.), 88, May 16, 2007, Puyallup.

Joyce Elaine Johnson Hansell ('41 Pharm.), 87, May 30, 2007, Pendleton,

Howard E. Hunt ('41 Mech. Engr.), 99, February 2007, Eugene, Oregon.

Lorraine Berger Clarke x'42, 84, April 23, 2007, Bellevue.

Celeste M. Gusman x'42, 84, January 16, 2007.

Donald Moyer ('42 D.V.M.), 88, February 5, 2007, Milwaukie, Oregon.

Iohn Schafter ('42 Plant Path.), 86. May 5, 2007, Santa Rosa, California.

Jacqueline Rose Flaherty Baker ('43 Soc.), 68, May 10, 2007, Coeur d'Alene, Idaho.

Walter B. Crowl ('43 D.V.M.) 89. December 14, 2006, Twentynine Palms, California.

Donald R. Graham ('43 Mus., '47 Ed.), 85, December 9, 2006, Centralia.

Roy E. Fountain ('44 Elec. Engr.), 87, April 23, 2007, Scotia, New York.

Alex Ryncarz ('44 D.V.M.), 88, May 2, 2007, Puyallup.

John D. Killingsworth ('47 An. Sci.), 85, January 11, 2007, Pomeroy.

Robert F. De Vleming ('48 Phys. Ed., '49 Ed.), 83, October 30, 2006, Pull-

Bruce Rutherford ('48 Elec. Engr.), 82, April 16, 2007, Pullman.

Margaret Codding ('49 Hist.), 82, January 25, 2007, Hillsboro, Oregon.

Ethan Allen Williams x'49, 80, May 25, 2007, Spokane.

1950s

Stanley I. Burghardt ('50 Chem., '54 Ph.D.), 84, February 11, 2007, Palmerton, Pennsylvania.

Joan Marie Fulgham ('50 Home Ec., '51 Ed.), 80, February 18, 2007, Issaguah.

James Stephens Marshall ('50 Bus.), 81, May 22, 2007, Boca Raton, Florida. Walter James Apt ('51 Ag., '58 Ph.D. Plant Path.), 85, March 18, 2007, Bellingham.

Howard E. Bean ('51 D.V.M.), 84, August 17, 2006, St. Maries, Idaho.

Melvin R. Lewis ('52 An. Sci.), 85, April 1, 2007, Spokane.

Robert E. Lundgaard ('54 Pol. Sci.), 74, May 3, 2007, Olympia.

Arden A. Decarteret ('55 Sp. Comm.), March 15, 2007, Tacoma.

Johannah (Farmer) Grigsby ('55 Soc.), 73, June 4, 2007, Mesa, Arizona.

Joseph J. Lawrence ('55 M.A. Soc.), 78, January 20, 2007, Mt. Pleasant, Michigan.

Dale E. Noyd ('55 Psych.), 73, January 11, 2007, Seattle.

Doris Mae Schenaker ('55 Ed.), 76, March 20, 2007, Lynnwood.

Gretchen Heuterman ('56 Hort, Ph.D. '76), 72, July 31, 2006, Mt. Vernon.

John David McCleary ('56 Vet. Sci.), March 22, 2006, Billings, Montana.

Clarence Vanderhage ('56 Ag. Ed.), 79, December 31, 2006, Blaine.

Betty Morrison ('59 Ed.), 69, April 23, 2007, Arizona.

1960s

Edward "Mike" Skylstad ('60 Hort.), 68, March 14, 2007, Sun City, Arizona.

James George Kent ('61 Econ.), 2007, Silverdale.

Joe Jones Winterhawk ('62 Phys.), 66, March 23, 2007.

Linda Lu (Johnson) Bump ('64 Ed.), 64, March 6, 2007, Tulsa, Oklahoma.

John Francis Nold ('65 Soc. Stud.), 64, December 31, 2006, Vancouver.

Yvonne Allene Wynne ('65 Ed.), 64, May 8, 2007, Mill Creek.

Lila J. Bateman ('66 Ed.), 62, February 25, 2007, Kennewick.

Florita Hope ('66 Fine Arts), 93, November 25, 2006, Spokane.

Sylvia Perkins ('67 Home Ec.), September 15, 2006.

Dwight Allen Ditty ('68 Agron.), 63, February 10, 2007, Spokane.

Lawrence Porter ('68 An. Sci.), April 8. 2007. Deer Park.

Michael Keel ('71 Pol. Sci.), 58, April 30, 2007, Burley, Idaho.

James E. Ragland Jr. ('72 Comm.), 56, January 31, 2007, Oroville.

Dale Hostetler ('73 Gen. Stud.), 55, March 24, 2007, Vancouver.

William J. Gibson ('74 Vet. Sci.), 79, March 28, 2007, Four Lakes.

Eileen H. Costello ('76 Sp. & Hear. Sci.), 53, February 15, 2007, Ronald.

Connie Wennhold ('78 Hort.), 50, March 14, 2007, Ruhenstroth, Nevada.

1980s

Julene Kay Wallis ('83 Child & Fam. Stud.), 47, March 3, 2007, Portland, Oregon.

Angela F. Peterson ('84 Bus. Admin.), 45, March 2007, Tacoma.

Elizabeth Duncan ('02 Sci.), 26, April 21, 2007, Seattle.

Faculty & Staff

Eugene Allen, facilities staff, June 3, 2007, Albion.

Rudolph Alonzo Jr., facilities retiree, 61, January 26, 2007, Yelm.

Gilmore A. Anderson, retired staff, 93, January 26, 2007, Moscow, Idaho.

Kenneth Bierly, WSU Vancouver former faculty, 63, February 12, 2007.

Sylvia Bodolay, former staff, 55, February 15, 2007.

Victor P. Bond, retired chemistry faculty, 87, January 23, 2007, Richland.

George Carter, USDA food chemist, 94, March 19, 2007, Prosser.

Allen Feldner, retired staff, November 23, 2006, Colfax.

Raul G. Garza, retired Hort. & Landscape Arch. staff, 62, March 12, 2007, Othello.

Gordi Keown, former Vet School faculty, 95, May 12, 2007, Los Gatos,

Lorrain Lehmitz, former Beasley Coliseum staff, 78, April 8, 2007, Pullman.

Helen Palms, former payroll tech., 93, March 19, 2007, Salinas, California.

Debbie Pipher, former swim coach, 53, January 24, 2007, Albany, Oregon.

Mary Elizabeth "Betty" Rodeen, retired staff, University Publishing and Printing, January 3, 2007, Pullman.

Mary R. Strong, retired library staff, 83, April 19, 2007, Lewiston, Idaho.

Rita L. Sullivan, retired staff, 84, January 24, 2007, Galesburg, Illinois.

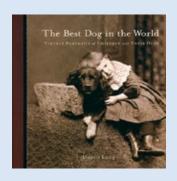
Marvin Swenson, CUB staff, 80, March 24, 2007, Tacoma.

Jan Timmermans, retired staff, 74, November 19, 2006, Pullman.

Paul Wadleigh, retired professor, Sp. & Theatre, 81, April 6, 2007, Pullman.

Marcel E. Wingate, staff, Sp. & Hear. Sci., 83, November 29, 2006, Pullman.

Raymond J. Young, retired, College of Education, 84, February 12, 2007, East Lansing, Michigan.



The Best Dog in the World: Vintage Portraits of Children and their Dogs

By Donna Long '89 Ten Speed Press Berkeley, Toronto, 2007

ts square format, 8¼-inch page size, and consciously retro design mark *The Best Dog in the World: Vintage Portraits of Children and their Dogs* by Donna Long '89 as a gift book—not a weighty tome by any means. Yet, unlike many other books of its kind, there's enough substance in this little volume to keep readers coming back to it again and again.

The book brings together 111 photographs—both formal studio portraits and amateur snapshots—taken from 1875 to 1925. A number of the images were originally printed as photo postcards, and Long takes pains to preserve their identity as such, reproducing the entire image side of the cards, graphics and all, and in many instances the message side as well—either an advertisement for the photogra-

pher or a handwritten message and address.

Clearly, for both author and publisher, the book is primarily about dogs-hence the title, and the pervasive theme of dog breeding. Long explains in the introduction that the period from which the photographs were drawn "also, coincidentally, witnessed the development of the majority of today's dog breeds. Thus," she continues, "a perusal of these images is also an introduction to an important era in canine history." That emphasis carries through to the book's caption material, which, except for a two-page note on the photographs, makes up the remainder of the text and consists mainly of commentary on a variety of breeds or their prototypes.

But because the photos are portraits of dogs and children, another current runs through the book altogether. Thus, Long's assertion that "the mixed breed ... is really the star of this collection," undercuts the breeding theme and reinforces, at least by implication, the point she makes at the outset about the universality of the book's appeal: "our ancestors were really the same as us: they laughed, they cried at the same things, and they certainly loved their dogs with the same passion that we do."

Which leads me to make a point of my own. Though I'm as much a lover of dogs as anyone,

it's the children who make this book interesting to me. Whether posing solemnly for the camera or arrested momentarily in the midst of play, they dominate these pages with their humanity and the sense of their actual lives, exerting an irresistible pull across the years. Because they *are* no different than we. And that's what makes *The Best Dog in the World* a book to remember.

For more information see www. wsm.wsu.edu/bookstore/alumni/photography.

—George Bedirian



The Wakefields: Falling Down Blue

Eminence Records
Seattle 2006

ountry music always seems to be filled with nostalgia—looking back on the days of old with a southern drawl, an acoustic guitar, and a broken heart. Yet every so often artists like The Wakefields come along to alter these perspectives. Falling Down Blue is an album that grafts poplike traits on a country-music base. While The Wakefields consistently encompass the alt-country genre, each song blurs the boundaries between this more modern form of country and old-timey folk-pop.

There's even a strong oldies rock influence apparent in the earliest moments of *Falling Down Blue*. Remnants of Elvis Presley and Buddy Holly can be heard, along with bass lines that mimic Elvis Costello—but, surprisingly enough, not from his lone country-like album, *Almost Blue* (1981).

One of the most notable tracks on Falling Down Blue is "Deeper Blue," a song that most represents Buddy Holly in the lyrical styling frontman Jason Kardong '96 lays down in the chorus. "The way I wrote the song and the way it turned out are completely different," states Kardong, who codes for Microsoft in his day job. "It started out with a slow, walking bass line." The song now has a quick tempo and a heavy pop feel. The lyrics blend romance-heavy '50s pop (here comes my girl again with him / that smile tells me where they've been) with nostalgic twangy country (I'll paint my world a deeper blue / I'll have these thoughts about you / night after night).

Kardong is no stranger to the Seattle music scene. After being in numerous country and metal

cover groups, he joined Six String Eric & His Lazy Ranch Hands and toured the rockabilly circuit up and down the West Coast in 2001. Recently Kardong has been found playing lap steel guitar for Sera Cahoone, the former drummer of Carissa's Weird, whose members Matt Brooke and Ben Bridwell went on to garner success in Band Of Horses.

The album opener is "Without You." The Wakefields establish their genre early with slide guitar. Here, as in the songs that most represent the core of country on Falling Down Blue, there are heavy traces of Dwight Yoakam. The song, like the rest of the album, is filled with emotion, and the lyrics flip from being simplistic (without you you're better without me) to including intricate little hooks (when I'm all alone / the silence of my home / echoes how I ruined the best thing I knew).

What may be most surprising about The Wakefields is the diversity of influences. Lynn Sepeda is heavily into The Cure, as can be heard in his percussion on "She'll Fly." Here, the nature of the album begins to shift—gone is the country percussion and the emphasis on slide guitar. In their stead, The Wakefields add hand-claps and a vibrant Hammond organ.

A more recent influence on several band members is The Gun Album by The Minus 5, a Northwest indie-folk band with strong links to Wilco and The Decemberists. "Take Me Home" begins with a keyboard intro by Arne Chatteron, whose keys are a strong presence throughout the album, though they are not present in all songs.

While Falling Down Blue successfully combines the sensibilities of traditional country and pop, it's The Wakefields' off-stage sense of humor that alters perspectives and makes the album so exceptional.

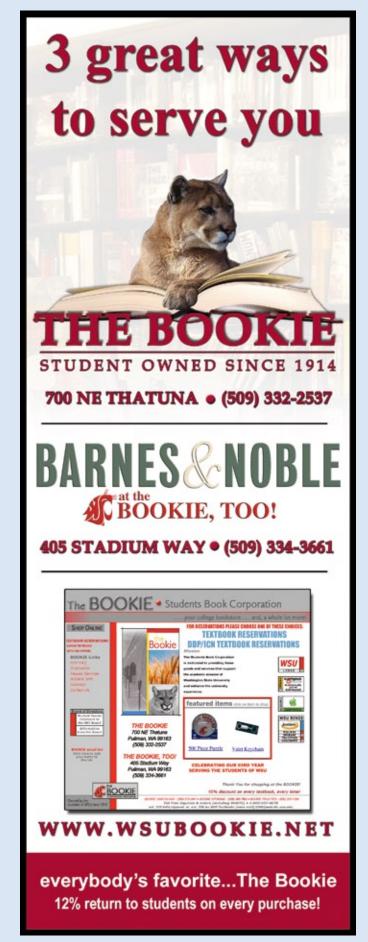
When asked about past tours and upcoming shows, Kardong and Bogart went off on a timetraveling riff on shows they've played in different eras. "Most of our gigs happened in 1943 in this place called Cabana. They just love us there. But that's like 200 years ago."

It's a lovable nature that is definitely present in their music, giving Falling Down Blue a fun and unique feel that is impossible to overlook.

For more information, visit www.myspace.com/thewakefields.

-Andrew Fenstermaker '03, '06

A self-described pop-culture junkie, Fenstermaker is the moving spirit behind FensePost Reviews (www. fensepost.com), a "Website for fans obsessed with discovering new music brought to you by fanatics obsessed with everything music."



NEWS *from the* Washington State University Foundation



Seniors Matthew Sobotta and Abigail Sherwood are just two of the many students who "smile and dial" for WSU's Call-A-Coug program.

Call-A-Coug Reaches \$3 Million Mark

Fifty student callers representing Washington State University's Call-A-Coug telephone outreach program recently accomplished a record-breaking feat—raising more than \$3 million in gifts and pledges for WSU during fiscal year 2007, which ended June 30.

Since 2005, fifteen students have each raised \$100,000 or more for WSU scholarships and programs as student callers at Call-A-Coug. Two callers have been particularly successful—Abigail Sherwood, a senior marketing major, raised \$310,000, and Matthew Sobotta, a senior political science major, eclipsed the \$400,000 mark.

While contributing to the record-breaking success of the WSU Foundation, the Call-A-Coug program also enables students to build relationships with other Cougs around the nation.

"The impact of these calls to WSU's thousands of alumni, parents, and friends goes well beyond the dollars raised," says Brandon Barngrover, Call-A-Coug program manager. "Graduates enjoy hearing news from campus and sharing their WSU memories with the latest generation of Cougars. Students gain tremendous knowledge about the University and valuable experience they can apply when they begin their own careers."



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Providing tomorrow's leaders with today's technologies

Microsoft Corporation employees and Washington State University are equipping tomorrow's leaders with important technologies today through Microsoft's unique matching gift program.

Dollar for dollar or in the form of software licenses, Microsoft matches employees' gifts to WSU—and helps provide today's students with the technological edge they'll need to succeed in tomorrow's world.

"Microsoft's matching gift program enables our employees to significantly increase their annual giving to WSU, and it helps us engage with other Cougars on the Microsoft campus," said Norma McKinney, senior product manager and one of the program's volunteer coordinators.

Since 2001, Microsoft and its Cougar employees have given more than \$6,280,000 in cash and software licenses for advancing educational excellence at WSU. In fiscal year 2007 alone, current and retired Microsoft employees gave more than \$500,000 to the University through the program.

Microsoft's matching gift program offers fulltime employees the opportunity to match their donations dollar for dollar up to \$12,000 per employee per year. Microsoft also matches employees' volunteer hours at a rate of \$17 per hour to organizations they support with their time and talents.

"Nearly every college and unit at WSU has received some form of support from Microsoft employees, thanks to the dedication of so many loyal Microsoft Cougars and this very successful program," said Carol Kowalski, associate director of development, WSU College of Liberal Arts.

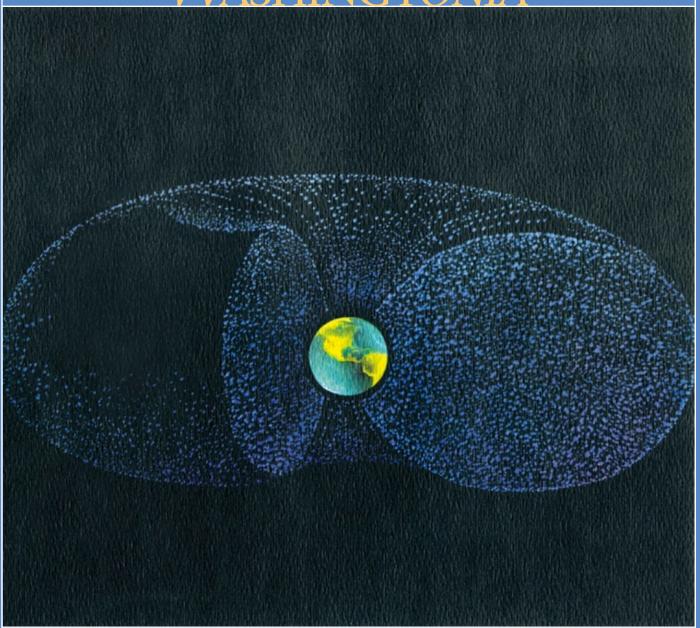


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