

Washington State

m a g a z i n e



WASHINGTON STATE READS:
What Nature Boy Takes to the Beach

WSU's Legacy of Shock • A Campus Murder Mystery • Selling Gig Harbor

features

22 **Book Season: Washington State Loves Its Literature**

by Hannelore Sudermann

In a report released last summer, the National Endowment for the Arts warned that literary reading has declined over the last 20 years. Scary stuff, huh? So we did our own informal survey of faculty, students, and alums. Their response? Read on!

**BEST BOOKS ABOUT WASHINGTON
RAISING GOOD READERS
OUR SUMMER READING SMORGASBORD**

28 **Shock Physics: Power, Pressure, and People**

by Hannelore Sudermann • photos by Robert Hubner

After the Soviet Union tested its first nuclear device, the United States determined that staying ahead in the arms race would require the best scientists and the best weapons. A new federal funding model emerged, channeling money into universities around the country for research and the training of the next generation of national scientists. By the late 1950s, WSU had started on shock-wave research.

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by Hannelore Sudermann

It must have been easy to drop the body into this part of Pullman, a section that sees so little traffic. The old county road was research land where hardly anyone but the grounds keepers ventured. But somebody had an ugly secret to hide.

field notes: Republic of Georgia

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by Fred Muehlbauer • photos by Walter Kaiser

About an hour into our continued search, Walt called out that he had found it. It was on a slope so steep and rocky, we had to lie on our sides to keep from sliding down. But that was the good news, because the plant was apparently thriving in a niche where competing plants could not survive.

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TOM WILLIAMS

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ROBERT HUBNER



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ROBERT HUBNER

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WALTER KAISER

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Editor, Tim Steury
Assistant Editor/Senior Writer, Hannelore Sudermann
Managing Editor, George Bedirian
Art Director, Jo Savage '70 M.F.A.
Photographers, Shelly Hanks '88, Robert Hubner
Writer, Tina Hilding

Contributors

WRITERS: Eric Apalategui, Katy Belokonny, Patrick J. Caraher '62, Andrea Blair Cirignano '05, Owen V. Johnson '68, Stephen Jones, Kathie Meyer '92, Fred Muehlbauer, Lorraine Nelson, Sue Rahr '79, Emmy Sunleaf Widman '02

PHOTOGRAPHERS: Marvin D. Boland, Rajah Bose, Laurence Chen, Matt Hagen, Walter Kaiser, Fred Muehlbauer, Lorraine Nelson, Bill Ray, Robert Searfoss, Phyllis Shier, Bill Wagner, Tom Williams, Ed Young

ILLUSTRATORS: Craig Attebery, David Wheeler

President, Washington State University, V. Lane Rawlins
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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NEWS FROM YOU

ONE THING that makes university magazine editors unique is, we spend an inordinate amount of time brooding about class notes. We also think a lot about the many different purposes our magazines serve.

This issue of *Washington State Magazine* is being mailed to 126,400 WSU alumni. A year from now, that number will have grown by about 5,000. Because we like hearing from you and passing your news on to your fellow alumni, these numbers translate into a whopping amount of information. As a result, we need to make a few changes.

We receive information about you from a variety of sources. Some, by letter, e-mail, and notes attached to Alumni Association forms, are sent directly by the subject. You got promoted. Had a new baby. Got married. No problem. This information continues to go into Class Notes.

Other news comes to us more indirectly, through news releases, clipping services, the grape vine, and so forth. And here's where we need to make a change. We always take note of this information, for it often gives us story ideas. However, for Class Notes, from now on we will only run information sent by the subject, his or her spouse or partner, a friend—or a news release sent by the subject's employer. We will not be translating information from news clippings or other indirect sources to Class Notes. Otherwise, if you send us the info, we'll run it.

But we would like you to send it in a particular way, which should be easier for everyone. If you go to our Web site, you'll notice a "Class Notes" listing on the left side. Click there, and enter your news. That information will be reviewed—to avoid pranks and so forth—and then go into a searchable database online. An edited version will also appear in the print magazine.

We realize that some of you still might not have online access. Of course, we'll continue to welcome your paper mail. Just mail it to the address listed in our masthead. But if you can submit your information online, it will help us better handle a steadily increasing amount of information from Cougars worldwide.

One more thing—this one a little more delicate. This past year, we ran approximately 200 obituaries. We realize all of these people are important and that many of them maintained close ties to their alma mater. Every time we're asked to run an extended obituary, we have to make a judgment call. Who "deserves" that space?

Well, they all do. But obviously, we don't have that kind of room. At the risk of seeming too rigid, we've decided all deceased alums will get equal mention, a short note in the "In memoriam" section.

This information can be submitted through the Class Notes link on the Web site, also. However, if you submit an obituary online, please let us know some way we can verify it—for example, indicating the newspaper and issue in which it originally appeared.

We hope these changes will help us be more comprehensive in covering the lives, and passing, of all our Cougar family.

—Tim Steury, Editor

wsm.wsu.edu

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BILL WAGNER

LEADING THE REBIRTH OF THE BLAST ZONE

Just 30 days after the 1980 Mount St. Helens eruption, Dick Ford and three coworkers planted the first tree seedlings in the blast zone to see how they would fare. This winter the first truckloads of logs rolled off the devastated slopes to become lumber—and Ford has settled into his new job as director of the Forest Learning Center.

ON AN UNUSUALLY balmy January day, a lush Douglas fir forest in the Green River Valley is dappled with sunlight. Dick Ford ('70 Forest Mgt.) may not have arranged the blue skies, but the longtime Weyerhaeuser forester did engineer this verdant rebirth of the company's timberlands from an ashen wasteland north of Mount St. Helens.

A quarter-century after the volcano's catastrophic eruption, that rebirth is complete. This winter the first truckloads of logs rolled off these slopes to become lumber.

Ford no longer works in the woods. As director of the nearby Forest Learning Center at Mount St. Helens, it is his job to tell the dramatic story of the forest's stunning comeback to visitors from around the world. This May 18, as the reawakened volcano attracts new interest, Weyerhaeuser will host the "signature event" at the center to commemorate the eruption's 25th anniversary.

From deep inside the sylvan sanctuary, it's difficult to imagine the devastation that blew across this forest and killed 57 people on May 18, 1980. If Mount St. Helens had remained corked for 24 more hours, the blast would have killed hundreds more workers on private timberlands outside of a restricted

"red zone." One of those casualties of a delayed eruption might have been Ford himself.

On the morning of May 19, 1980, he was scheduled to burn logging slash to prepare a clear-cut for replanting. That site was within the blast zone, the 150,000-acre area where the overwhelming force and searing heat of the eruption killed every tree.

Instead, the mountain blew the day before, at 8:32 a.m. on a placid Sunday. That morning Ford was digging razor clams from the surf near Long Beach when his wife heard the news on their car radio. Driving back toward Longview, Ford caught his first glimpse of the massive plume of ash while rounding a bend along the Columbia River.

Many people, including prominent scientists, doubted the scarred land would ever generate another two-by-four. Ford helped prove them wrong.

In 1980, he was forester for Weyerhaeuser's large Camp Baker district, which included the 68,000 acres the company owned inside the blast zone. The district is part of the massive St. Helens Tree Farm, which the company has owned for more than a century.

Ford managed "a scale [of reforestation] that we had not done on the West Coast," says John Keatley ('64 Forest Mgt.), his supervisor at that time and one of a group of Cougars who helped restore Weyerhaeuser's timberlands around Mount St. Helens. "He did that very well."

Just 30 days after the eruption, Ford and three coworkers shoveled through layers of sandy ash to plant the very first tree seedlings in the blast zone to see how they would fare. The ash held few nutrients, made digging difficult, and presented other problems, but the heavy layer also held in moisture and curtailed weed growth to give young trees a head start.

From those early trials, foresters quickly devised a plan to replant 45,000 acres the company would retain inside the zone's boundaries. Before much of the planting, Weyerhaeuser salvaged enough lumber from dead trees to build 85,000 three-bedroom homes.

The timber company swapped a third of its land inside the blast zone for smaller public holdings elsewhere during formation of the Mount St. Helens National Volcanic Monument in the early 1980s. Left to nature's slower pace, the monument also is undergoing a renewal, but remains a starker landscape next to Weyerhaeuser lands wrapped in solid evergreen.

"After the monument was formed, everything we owned, we planted," Ford says. "I negotiated every single planting contract out here."

For seven seasons after the blast, Ford oversaw contract crews that planted 18.4 million trees—mostly the Douglas and noble firs native to the Cascade Mountain slopes.

Planters started at the fringes of the blast zone, where the ash was only two inches deep, compared to the two-foot drifts closer to the crater. Today, the dynamic forest soils have swallowed up the ash.

The logging of those replanted forests that started this year inside the blast zone is known as commercial thinning, which provides valuable lumber and pulp while priming the remaining 160 trees per acre

to become top-grade timber within 15 years.

Forestry has changed nearly as much as the Mount St. Helens landscape in the 35 years since Ford graduated from Washington State University and returned home to work in rainy southwest Washington.

"You didn't see anything like this in the woods in the '70s and '80s," Ford says, watching a modern harvester machine buzz a standing tree into two cut-to-order logs in less than 30 seconds while barely leaving a tire track on the soil. "This is a pretty exciting time to be a forester."

Besides new technology, says Ford, Weyerhaeuser adheres to tougher environmental laws, certifies all of its operations for sustainable forestry practices, and mandates

stricter safety rules that have made the profession less treacherous.

Back in the '60s, Ford went to WSU on scholarship to wrestle, a solitary sport that took him to the 1969 nationals. He still officiates high-school matches in his spare time. He went into the similarly solitary field of forestry, because aptitude tests suggested he was most at home in the woods.

So at first there seems a bit of irony in his current position as founding director of the 10-year-old Forest Learning Center, which Weyerhaeuser operates in a partnership with the Washington State Department of Transportation and the Rocky Mountain Elk Foundation.

"I chose the field to be out in the trees and away from people," Ford

For more information about
MOUNT ST. HELENS
and 25th-anniversary activities:

Forest Learning Center
www.TheForestReturns.com
360-414-3439

Gifford Pinchot National Forest
www.fs.fed.us/gpnf/
360-891-5000

Cowlitz County tourism
www.co.cowlitz.wa.us/tourism
360-577-3137

says, pulling into the center with a commanding view of Mount St. Helens. "Now what do I do? I manage a center that gets 250,000 visitors a year."

"There's nobody with the history of the area like mine," he says. "You eventually reach a point where you want to tell people about it." ■

—Eric Apalategui

University buys **ADAMS MALL**

IN 1909 it opened as a schoolhouse and became the center of the College Hill community. In the '80s it was made into a shopping center for retail and restaurants and a hot night spot at the heart of the Greek system. And this summer, Adams Mall will go through another transformation.

Washington State University recently bought the two-story brick building for \$1.5 million and has retained Corporate Pointe Developers to redesign the site and manage it for the next 30 years.

"It's part of the College Hill revitalization project,"



COURTESY OF DESIGN WEST ARCHITECTS

asparagus



ED YOUNG / CORNUS

Asparagus is in! The best time to find fresh Washington asparagus at the market is from April through June.

TOPPENISH-AREA FARMER Kevin Bouchey has an affinity for asparagus, which his family has been growing since 1979. “It’s a funny crop,” says Bouchey, who also farms wheat and potatoes. “In a given farm year, you usually grow a plant and then harvest the crop later. Asparagus is kind of backwards. But it’s a fun crop to raise.”

Asparagus is harvested in the spring, when its first shoots come through the earth, long before the plant has the benefit of maturing.

Asparagus officinalis comes from the lily family, along with leeks,

garlic, and onions. It was first cultivated 2,500 years ago, and throughout history has been considered a delicacy. Today, it is the quintessential Northwest vegetable, usually posed on a plate with a pink wedge of salmon.

Asparagus is native to Europe, North Africa, and parts of Asia. Though now a staple of French cuisine, asparagus wasn’t grown in France before the 17th century, when King Louis XIV developed a taste for it. In England, for a time, the sprout was called “sparrow grass” a name that has lingered.

says Mel Taylor, WSU’s director of special projects. For several years, the University has been buying target properties in the neighborhood adjacent to campus with the goal of making the neighborhood a safe and attractive place to live. “We needed to have a better commercial district on the hill, and Adams Mall is obviously a key place for us to make a difference,” says Taylor.

Under the new management, Shaker’s Bar and Grill is the only tenant not renewing a lease. Corner Market, Fat Ass Burrito, Unisex Hairstylists, and Pita Pit will all remain in the building, and Papa John’s will continue to occupy the adjacent store.

In place of Shaker’s, a multi-functional restaurant will open on the bottom floor. This will be a place where students can grab a coffee before class, get pizza or a hamburger for lunch, and study later in the day. Other plans for the new restaurant include a large dance floor, two separate bars, and a separate room, called the Varsity Club, where people can visit in a quiet setting. Like Shaker’s, the restaurant will be open until 2 a.m. and will serve alcohol.

“For alumni and visitors, it will be more accessible during the daylight hours,” says Taylor. “At night, it will belong to the students.”

The renovated mall will have room for three to four new businesses on the upper level and a large patio area for outdoor seating on Colorado Street.

“We are going to develop a cleaner, safer environment for not only students, but all patrons who would visit,” says Duane Brelsford ’81, president and managing member of Corporate Pointe Developers. ■

—Andrea Blair Cirignano ’05

Today growers call it “grass.” It can be had in purple and white varieties, though most American asparagus comes in green.

Chef Gene Fritz, culinary educator of the School of Hospitality Business Management at Washington State University, says he prefers to use local and seasonal foods when preparing special meals at the president’s house. Spring asparagus fits the bill.

“When it’s in season, I do everything I can around it,” he says. “It has such a subtle flavor profile, it matches really well with a lot of other regional ingredients.” Sometimes he marinates the spears in a vinaigrette and serves them grilled alongside halibut or salmon, other times he purees them in a hazelnut cream soup. “I haven’t done it up in a dessert yet, but who knows.”

He also uses it as a foil for rich dishes like his Cougar Gold scalloped potatoes. “It has the function of being a refreshing component on the plate,” he says.

The good news for local epicures is that when it is in season, asparagus abounds. Washington is second only to California in asparagus production in the United States. The bad news is that in recent years the industry has been hit with international competition, rising labor costs, and the closure of the canning plant in Dayton after this season. Some farmers are tearing out their asparagus fields, while others are redirecting their efforts toward the fresh market.

“Washington asparagus has gone through a major acreage cycle,” says Ray Folwell, agriculture economist at WSU. “It peaked in the ’80s with 32,000 acres. We’re now down to about 14,000 acres.”

Researchers at WSU are looking at ways to keep Washington’s asparagus industry healthy by making it more competitive. They’re working

on increasing the vegetable's shelf life and developing methods to mechanically harvest and pack the crop. Asparagus is the only local crop that has to be harvested entirely by hand.

"It's extremely labor intensive," says Trent Ball, a WSU research associate. "But when you have humans out there, they can see which spears need to be culled and which can be picked. Mimicking

that from a technology standpoint is very difficult."

Since fewer asparagus spears are destined for canning this spring, more are available fresh. Now is the time to look for the Washington asparagus in markets and grocery stores. Our season started in April and should last through June, says Bouchey.

The *Larousse Gastronomique* advises selecting asparagus with

stems that are firm and uniformly colored. It may be stored in the refrigerator for a day or two, and is best kept upright in a dish with about an inch of water. Also look for it to be uniform in size. "It's kind of an old wives' tale that the larger, plumper spears are tougher than the slender spears," says Bouchey. "That's not true. The problem is they're hard to cook at the same time."

For more than a month now, workers have been culling over Bouchey's fields, bending and bobbing as they hand pick asparagus shoots. Bouchey's fresh crop goes to grocery wholesalers, and he urges readers to ask their retailers to stock domestic asparagus. Though most of his crop is headed to major stores, some stays home. "I love it," he says. "My new favorite way is grilled on the barbecue." ■

—Hannelore Sudermann

All's well that ends well

MOST DAYS, University of Idaho professor of engineering Dave Atkinson ('80 B.S., '89 Ph.D. Elec. Engr.) sits quietly in front of a computer screen. The astrophysics expert, who as a kid loved learning about outer space, is thoughtful and soft spoken. Looking in his nondescript office stacked with sci-

ence papers and textbooks, you wouldn't think that for a few hours last winter, he was at the center of an interplanetary drama.

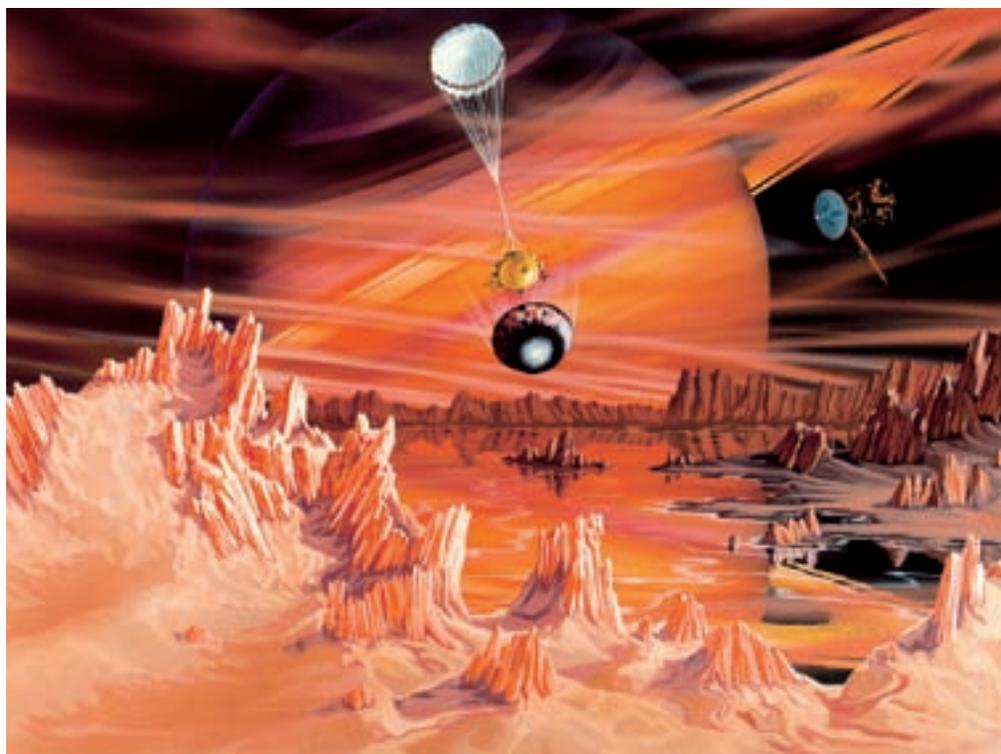
For 18 years, Atkinson has been quietly concocting an experiment to measure the winds on Titan, one of Saturn's moons. And last winter he had a once-in-a-lifetime shot at

putting his painstakingly crafted project to use.

To those who may wonder why one might want to measure the weather on Titan when we can't even get it right here on earth, Atkinson says, "Exactly!" Studying Titan is like getting to know one of earth's long-lost siblings, says Atkinson. Nearby planets and moons are valuable laboratories for learning about our own planet, because they make it possible to compare experimental conditions—spinning slowly versus spinning faster, ocean on the surface versus no ocean. Like Earth, Titan's atmosphere is made up mostly of nitrogen. And like Earth, Titan spins on its axis. We may be able to learn more about our own planet's weather by looking at this moon.

In 1987, Atkinson devised a simple experiment to measure wind speed and direction on Titan. The Huygens probe was to be parachuted through Titan's atmosphere, emitting radio signals as it fell. Using methods similar to the way in which one determines wind direction by observing the movement of an overhead kite, Atkinson and his colleagues planned to use the Doppler shift of the radio signal to mark the probe's path and assess wind speed and direction. The probe was aboard the *Cassini* space-

This artist's conception shows Titan's surface with Saturn appearing in the background through Titan's thick atmosphere of mostly nitrogen and methane. The Cassini spacecraft flies overhead with its high-gain antenna pointed at the Huygens probe as it nears the surface. Artistic license has been used to exaggerate the size of the orbiter, the sharpness of the icy features, the tilt of Saturn's rings, and the visibility of the planet through Titan's atmosphere. ILLUSTRATION BY CRAIG ATTEBERY, COURTESY NASA/JPL-CALTECH.



craft when it was launched in 1997, heading for Saturn and Titan. In late December 2004—after a seven-year journey—*Cassini* released the probe. On January 14, Huygens entered Titan's atmosphere and began its two-hour descent to the surface. *Cassini* was set to receive data from the probe for two and a half hours, then to relay the data to Earth.

At the European Space Agency's Mission Control Center in Germany, Atkinson and his colleagues waited eagerly for the data to arrive. After 18 years of work, they were finally about to get some answers. They had only to wait out the several hours it would take for *Cassini* to process the data and transmit it across the immense distance from

Titan to Earth. At long last, on the morning of the 14th, the first signals arrived. The probe was alive!

"We were all very excited," says Atkinson.

But as the data started coming in late that afternoon, Atkinson noticed a red message on his computer screen, indicating that while the receiver on *Cassini* was turned on, Atkinson's instrument on the orbiter remained off. He and his team waited for it to switch on, growing increasingly nervous as the minutes wore on. All the other experiments on the probe were running. But somehow, no one had given the simple command to turn on Atkinson's experiment. And because the events they were wit-

nessing had occurred six hours before, they could only wait helplessly for the red message to go away, watching as the probe made its way to the surface. Here was a thoroughly dedicated and conscientious group that had worked for years to make the mission a success. And now, it seemed, that work was being undone, simply because the telecommand to turn on the experiment had been forgotten.

How do you describe the feeling of watching 18 years worth of work come to nothing? Shock. Numbness. A sinking in the stomach. Atkinson wanted to cry, to punch something. His colleagues on the experiment left to get a beer. In that moment of failure, these scientists

realized that for all their sophisticated instrumentation and high-tech gear, they remained, after all, fallible human beings.

"These missions are incredibly hard," Atkinson says. "These are very dedicated people, but they are real people, and they sometimes mess up. You have to be ready for the fact that sometimes it doesn't work."

But on that January day, the *Cassini* team wasn't quite ready to concede failure. An hour after dispersing in despair, they came together again, this time with a glimmer of hope. Hadn't the telescopes on Earth picked up radio signals? Atkinson had had the same thought.

"We've still got data." These have to be the happiest words a scientist exploring distant planets can hear.

Over the next 10 days, the researchers studied the signals that had come in. They rewrote software. At first, they couldn't read the data. What they ended up with is a "sparse" data set, but a data set nonetheless. Instead of the eight measurements per second they had planned for, they got one measurement every 10 or 20 seconds with one gap of 1,500 seconds. Still, it was enough to make rough measurements. The researchers found that the winds on Titan blow in the direction the planet spins, from west to east. In the upper reaches of the atmosphere, wind speeds are about 200 to 250 miles per hour. In a zone about 70 kilometers above the surface, the winds decrease inexplicably. Closer to the surface, wind speed drops to almost nothing.

"Things worked out as well as possible," says Atkinson. "This was an unbelievably successful mission. All of a sudden, we were really able to salvage something worthwhile."

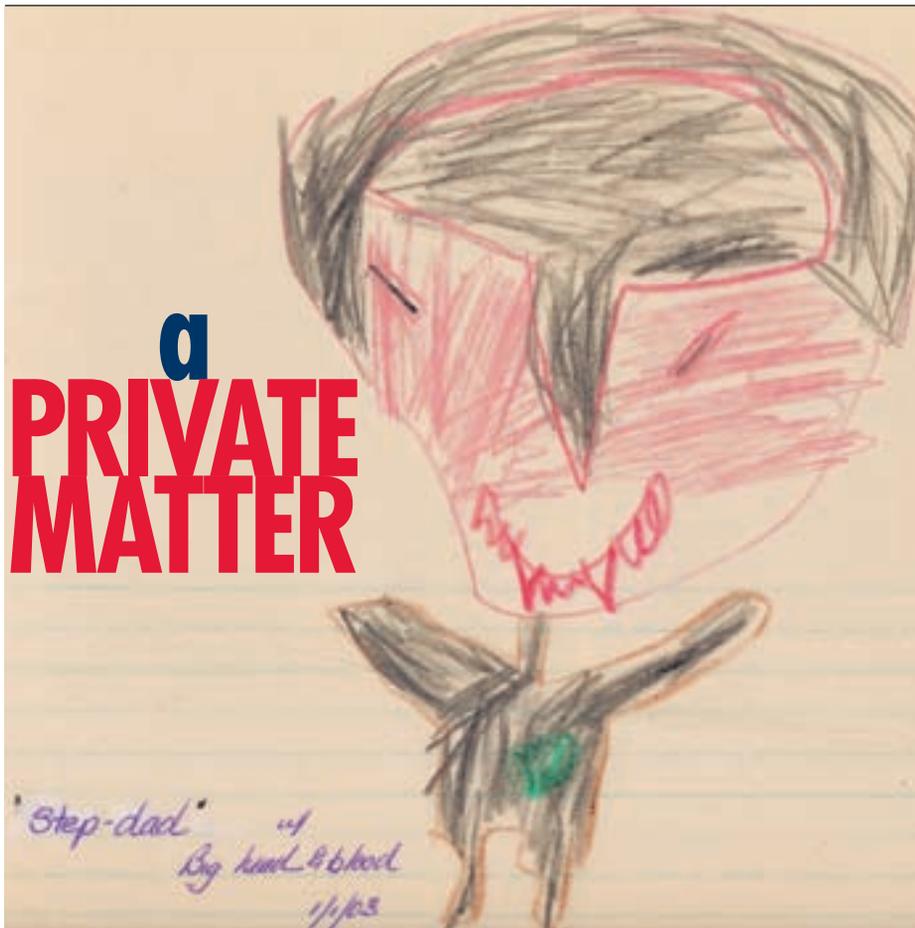
—Tina Hilding

A Nobel laureate promotes a "new Africa"



Wole Soyinka (center), a playwright, poet, novelist, and political activist who won the Nobel Prize for Literature in 1986, spent a couple of days in February on the Pullman campus.

His visit was in conjunction with the Theater Arts Program's presentation of his play *Death and the King's Horseman*, which examines differences between Western and African cultures. At the core of Soyinka's work is the idea of a "new Africa," wherein native myth is joined with contemporary reality and ancient tradition melds with current technology, leading Africa out of its colonial past.



A unique academic unit combats domestic violence

CHRIS BLODGETT RELATES a story told him by a colleague. She was shopping one day, when she observed a father growing progressively frustrated with his nine- or 10-year-old daughter. Finally, he snapped, grabbed the girl by her ponytail, and lifted her clear off the ground.

"That's an assault on a child," says Blodgett.

But what did his friend do? What did eight other adults who observed the incident do? Nothing.

"Because," says Blodgett, "we have no social contract with each other about what we do when we see this."

A clinical psychologist by training, Blodgett directs Washington State University's Child and Family Research Unit (CAFRU) in Spokane. And he probably would have done something. After all, that's his job.

Blodgett and his colleagues at CAFRU have embarked upon a crusade to expose and treat, through a blend of academic research, policy, and practice, the family violence that many of us consider a regrettable but private matter, rather than a public-health issue.

Legally defined, domestic violence entails physical assault, battery, property damage, kidnapping, and unlawful imprisonment. The problem with the legal definition is that it requires the violence to occur in order for anything to be done about it.

Blodgett prefers discussing "intimate-partner violence," a broader concept that includes warning signs of impending assault, such as the controlling of a partner's behavior, isolation or withdrawal, and intense jealousy. Intimate-partner violence has physical vio-

lence at its core, Blodgett says. But the larger pattern of behavior is one of emotional and psychological abuse, and includes depriving the partner of her rights and freedoms.

While this more inclusive definition of domestic violence precludes direct intervention, it does provide a basis for discussion, says Blodgett. Questioning whether one's behavior is going to be damaging, for example, opens the door to self-examination. And looking at the definition as a public health model provides a means to influence behavior early in the progression toward violence.

Research in Spokane by CAFRU confirms what other studies have established—that one out of every five women has suffered domestic violence. But under the broadened definition, the incidence of vio-

lence against women increases from 20 percent to 43 percent. "If we were talking about this as a physical health problem," says Blodgett, "... if we said four out of 10 women will have diabetes, we'd be talking a major epidemic."

Compared to the incidence of domestic violence in other communities across the country, Spokane seems to fall somewhere in the middle. The city counts nearly 10,000 adults as victims of domestic violence every year—a very conservative estimate, Blodgett insists. Although domestic violence happens within all social strata, incomes, and ages, says Blodgett, the incidence is disproportionately higher among the poor. According to Blodgett's research, the odds of requiring medical care as a result of domestic violence are nine times greater in a family making less than \$25,000 a year than it is for one making more than \$75,000.

This is a particularly significant statistic for Spokane County, where one quarter of the children live in poverty and 12 percent of the population as a whole lives below the federal poverty level.

"That's not your first impression of Spokane," says Blodgett.

Understanding a problem and doing something about it are two different things, of course. That's what makes CAFRU unique among academic entities.

"Much of what I do is try to keep pace with where the literature is," says Blodgett. He and CAFRU then look for money to fund partnerships with other local agencies to deal with families affected by violence. They have channeled about \$7 million into Spokane in the past five years.

The unit currently is working with three federal multi-year grants. One, from the Department of Justice, is directed toward situa-

tions in which children have been exposed to violence. Research shows that following a violent incident there is only a short window of opportunity available to offset the effects of the incident on a young mind. If a child has witnessed a violent incident, police will call in an individual trained by CAFRU to help the child reduce the trauma. This may involve drawing or playing with dolls to reenact the situation, or simply talking through what happened. The theory, says Blodgett, is that such activity gives the child distance and perspective.

CAFRU has trained about 3,000 such professionals in the Spokane area.

Under a grant from the Centers for Disease Control, CAFRU also addresses violence in the workplace, such as harassment or stalking. "What we're finding in our survey," says Blodgett, "is that 60 percent of respondents say they know of a violent work event that affected one of their coworkers."

Ten percent of women say it's happened to them. One percent say they've had to have medical treatment because of violence that occurred in the workplace.

Add to this the nearly \$9 million in annual health-care costs related to domestic violence in Spokane alone, and the more than two million emergency-room visits that occur each year across the nation because of domestic violence, and the nature of domestic violence as a public-health problem becomes clear.

In other words, says Blodgett, "If we start with dollar value, this is not a bleeding heart issue." ■

—Tim Steury



WSU junior James Katica takes a request during his morning show at KZUU.

90.7 FM

HAPPY 25th, KZUU!

IT WAS A ROCK 'N' ROLL idea in a Bee Gees world.

In 1977, a time of flared pants and patchwork shirts, a small group of determined students at Washington State University wanted a voice that could reach beyond campus. They wanted an outlet that wasn't commercial, one that didn't play *Billboard's* top hits, and one that wouldn't dream of playing ABBA or Wings.

KZUU-FM was born of the idea that there was a world of good music out there, and no one was hearing it. "We were influenced by a lot of other radio stations at a lot of other universities," says Jon

Etherton ('78 Comm.), one of the founding members.

At the time, WSU already had a student music station called KUGR, which played to the college audience. But it was run out of the school of communication under the professors' watchful eyes. It played popular music. And it was transmitted via cable to just a few dorms. It also had more students vying for DJ spots than it could handle.

So when WSU Extension Information worker Robert Searfoss ('73 M.Ed.) told a broadcasting class that students could start a real station of their own, "about five or six students sat straight up," he says. They came to him after his talk and asked for help.

"You have to remember, it was the late '70s. People didn't have PCs, they didn't have laptops, they didn't even have televisions in their rooms," says Searfoss. "What they did have was stereo sets. They all had an FM receiver."

"Music was very important," he says. "It was a very big part of the students' social life, sort of their intellectual lives out of class."

The students wanted the station to be available throughout Pullman and to play to the eclectic tastes of the college audience, offering progressive rock and jazz. "Our motto was 'Anything but Top 40,'" says Etherton.

What the students were proposing was an independent, student-run, 10-watt FM station based in the CUB and run with the help of ASWSU—a place where they could be involved with student activities even if they didn't fit in with the Yell Squad, the Performing Arts Committee, or the Black Awareness Committee.

But that's not what everyone else wanted. This small but tenacious

Founding Funksters: In 1977 KZUU's first leaders—Jon Etherton '78 (left), Bill Stewart '78 (center), and Henry Huestis '79—hold an early meeting in advisor Bob Searfoss's office.



group met opposition from students and faculty concerned that it would compete with KUGR, from local radio stations, and even from managers of a TV station in Spokane who were concerned the proposed station's signal frequency would interfere with their broadcasts.

Still, the group found support from all over campus. The performing arts committee, the games area, and the residence hall association all wrote letters in support, some noting that students were dissatisfied with the current limited number of stations.

Finally, during the 1977-78 school year, the students won ASWSU approval. With donated equipment and help from the amateur radio student club, they set up a cable broadcast station and turned in an application to the Federal Communications Commission for air space. They were approved in 1979.

"It was pretty exciting going through the whole thing," says Henry Huestis ('79 Engr.). "I took away real-life experience in terms of how to get something done and in terms of engineering a radio station."

Today the DJs leave notes to one another on the covers of the CDs and albums with information like personal details about the artist or that the sixth song is a Bowie remake. The notes are a tradition that stems back to the station's earliest days.

Broadcast major Mike Guay has been at KZUU for four years. The station manager sits in a chair with his legs crossed beneath him and says he thinks he's ruined for the radio business. "There aren't a lot of radio stations like this one," he says. "We allow the DJs to play whatever they want, as long as it's not commercial music."

No Usher, no Avril Lavigne, no Destiny's Child, no Maroon5, no Green Day.

The artists that come across KZUU's airwaves today include Mates of State, Rufus Wainwright, and Brazzaville. They also sometimes include the Joni Mitchells and Chick Coreas of years gone by.

And if KZUU music does get commercial-radio play, the CD is pulled from the shelves. The students hold it in the business office and hope that it becomes unpopular again, says Guay.

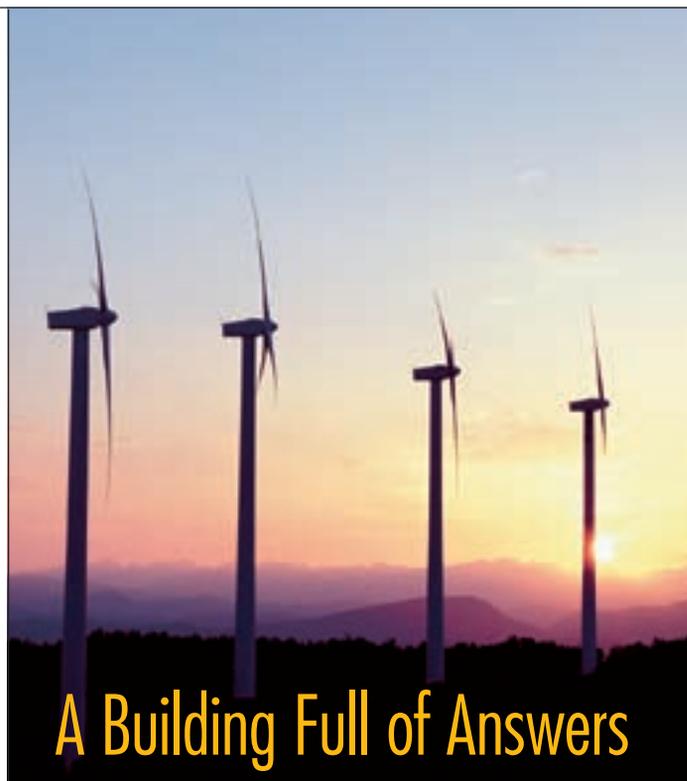
The station manager is at a tough point now with a group called the Shins. During a scene in the movie *Garden State*, actress Natalie Portman says she's listening to them. "I was floored," says Guay. "I'm like, 'No, people aren't supposed to know about them.'"

The DJs may be playing mostly CDs instead of vinyl now, and the programming happens with the help of a computer, but little else has changed. "If you're not school-spirity, it's a place where you can feel like you belong," says Heather Ebba Maib, who is DJ Hezza on air.

All the work is volunteer, and the 24-hour station runs on about \$5,400 a year. "It pays for our office supplies," says Guay. "Thankfully, all the music is free." And thanks to the Internet, KZUU has more than a local audience. The station has listeners as far away as Australia. "No matter when you're broadcasting, there's always someone out there listening," says Guay.

So happy 25th birthday KZUU, 90.7 FM. Maybe we're a year late, but hey, rock 'n' roll isn't about being on time. ■

—Hannelore Sudermann



A Building Full of Answers

MAYBE IT'S THEIR nondescript building, one of a row of identical structures just off of Plum Street on the way into Olympia. Or maybe it's their curious history, once a government entity, then oddly tossed to the budget dogs by an otherwise environmentalist governor. Maybe it's the fact that it's with Washington State University Extension, but doesn't really cost us anything. Or maybe it's all those 800 numbers connecting it to the outside world. And then again, maybe it was just me.

I've got to admit, I just didn't understand the WSU Energy Program until I stopped in for a visit late last summer. Not really familiar with the Center of Power, I was a little confused by the locked door and the intercom. But once I got inside and upstairs with all the energy experts, what a great surprise! How often is it that you find a building full of answers?

When Governor Lowry axed the Washington State Energy Office in 1996, its responsibilities were parceled out to various agencies, says Jacob Fey, who had started the state Energy Office in the early 1970s and is now director of the Energy Program. Cooperative Extension saw a unique opportunity and asked for the programmatic and information responsibilities, as well as the designation as state entity for operating federal programs.

Today the Energy Program operates with nearly 60 people and a \$6 million budget. But Fey's position is the only one funded by the state. "All other positions," he says, "are based on our ability to bring in competitive dollars.

"The nature of our business is like a consulting firm. We're only here as long as we bring in dollars."

As a result, engineers with the program consult on cooling systems with the United Arab Republic and develop software for

CORBIS

the European Union and Chile. The program has a consultant working full-time at Fort Lewis, managing its energy program. But the core of the Energy Program is in providing expertise and information in renewable energy and industrial technology. It also operates call centers and information clearinghouses.

If you call a Department of Energy 800 number with any sort of energy-related question, a phone

rings in the Energy Program building. A variety of information clearinghouses answer questions ranging from the very basic to the very technical—questions having to do with alternative fuels, heating and cooling, codes and standards, electric motors, and renewable energy.

During the first six months of last year, the program handled about 10,000 inquiries, says Lee Link, who manages the clearing-

houses. The inquiries came from everyone from homeowners to engineers for utility companies.

A couple of years ago, the Department of Energy's Oak Ridge National Laboratory evaluated the outreach of these clearinghouses, addressing cost-benefit ratio. The result, says Link, was \$20 in energy savings for every dollar expended on the program. ■

—Tim Steury

For more information:
www.energy.wsu.edu
 1-800-872-35-68



ROBERT HUBNER

JELL-O BRAINS and boa constrictors draw kids to science

FIFTH-GRADERS from seven area school districts bustled into the CUB ballroom recently for the third annual Kids Judge! Neuroscience Fair. After the participants met with their brain team—neurons, dendrites, boutons, memory, synapses—they made a visit to the Jell-O brain station where they chose from a variety of anatomically correct flavored gelatin brains.

And then to work. Clipboards in

hand, the children evaluated 14 educational models developed by Washington State University NEURO 430 students, faculty, and graduate students.

The projects focused on hands-on activities through which students could learn about the function and physiology of the brain. David M. Rector, assistant professor in the Department of Veterinary and Comparative Anatomy, Phar-

macology, and Physiology (VCAPP), who teaches the NEURO 430 course, emphasized creating projects simple enough for fifth-graders to understand.

"It's crucial that scientists are able to communicate complex ideas in a way that is understandable to the general public," says Rector.

The first-place winner for the Blue project division was "Sense of Touch," by senior pre-med student

David Barberdi. He constructed a wooden peg board with rubber bands and balls to show the kids how stretch receptors work. When pressure was applied to the rubber bands, a pair of wooden blocks opened a gate that allowed the ions (the balls) to flow through the gate, thus signaling the brain.

In the Green division, undergraduates Mariya Rupp and Chelsey Tadema won first place with their

model, “The Axonal Highway.” Their project taught the kids about proteins that are responsible for transporting things long distances along tracks called microtubules. The kids themselves became the transported objects, and raced down the rope-like tracks to deliver their chemicals to and from the cell body.

The student judges based their evaluation of each model on how well they understood the concept being demonstrated, how well the students explained the concept, and if the model was “fun.”

“Fear Factor” by Starla Meighan won first place in the faculty division by demonstrating the brain’s fight or flight response. The highlight of “Fear Factor” was an eight-foot boa constrictor. Also, a laboratory rat was a popular attraction at the exhibit, “How to Use Your Rat Brain.”

The NEURO 430 students were competing for a trip to Washington, D.C., where the best project will be presented before neuroscientists at the annual meeting of the Society for Neuroscience. The Kids Judge! event, sponsored by VCAPP, the WSU President’s Office, the Dana Alliance Brain Initiative Foundation, and the National Kids Judge! Partnership, coincided with National Brain Awareness Week, March 14-20.

The fifth-graders completed surveys before and after the event to evaluate their perception of neuroscience. Even if they do not remember where the cerebellum is located, many of them returned to their elementary science classes with a newfound passion for science.

“In the course of one day,” says Sandi Brabb, assistant director of the neuroscience program and coordinator of Kids Judge!, “science evolves from being something the kids dread to something that is fun.” ■

—Katy Belokonyy



GIG HARBOR

Laureen Lund markets the town she loves

LAUREEN LUND ('82 Comm.) recently celebrated her fifth anniversary as the person who sells Gig Harbor to the world. She seems to do her job well. At least, that’s why I’m sitting in her office in Gig Harbor’s city building in mid-August.

“The best use of our dollars is public relations,” she tells me, without a trace of irony or triumph. “If I can get somebody to do an article, it costs me nothing.”

I let that sink in for a minute. So—do I feel exploited?

Nah, not a bit. I’m having a fine time.

As for Lund, she just seems very pleased that she’s initiated another person into the pleasures of Gig Harbor.

It doesn’t take a lot of effort on her part to convince me that this is a dandy little town. After the long drive across the state and the Tacoma Narrows Bridge, I had gravitated instinctively to the Tides tavern for lunch. That’s perfect, says Lund. So was the deep-fried halibut.

A great number of people have discovered Gig Harbor since members of the U.S. Exploring Expedition, commanded by Captain Charles Wilkes, rowed into the harbor in longboats and a captain’s gig, seeking shelter from a storm in 1841. But I still feel that little thrill of discovery as I walk down Harbor-view later in the afternoon to pine over small boats



Laureen Lund '82

LAWRENCE CHEN

for sale. When I head back downtown, I notice for the first time this enormous presence looming across Puget Sound.

“We claim it,” says Lund, referring to the image of the mountain on the city’s logo. “We never refer to it as ‘Rainier.’ Just ‘the mountain.’”

Twenty-three years after the brief visit by the Wilkes Expedition, Samuel Jerisich arrived as the first European settler. More specifically, the first of many Croats. Even today, the town is divided among the “-ich’s” and the “non-ich’s,” and many of the street signs end in “-ich.”

Many of the settlers who followed Jerisich took up fishing, establishing the town’s main identity for a hundred years. Although pleasure boats now outnumber fishing boats, especially in August, when many of the bigger fishing boats are in Alaska, fishing still defines the town. Even though that’s changing, no one, least of all Lund, wants to change it any faster.

“Part of our strategic plan is to retain our maritime heritage and not become anything Disneyland-ish,” she says.

Even though downtown merchants have long tried to attract visitors, tourism became an official strategy for the town only five years ago, when Lund was hired full-time. What made her salary and mis-

Above: Launching of the *Defiance*, Skansie’s Ship Building Co., January 16, 1927.

PHOTOGRAPHY BY MARVIN D. BOLAND, COURTESY OF THE GIG HARBOR PENINSULA HISTORICAL MUSEUM.

sion possible was the building of a handful of hotels, such as the Wesley Inn, where I am staying—and which is quite nice. Every lodging establishment in Washington with more than 15 rooms collects a lodging tax, from which Lund’s funding, and that of other marketing directors, is drawn.

“Early on, there was some resistance,” she says. Some feared becoming a Leavenworth, a small town that, in order to draw tourists, adopted a foreign persona.

So far, though it has the ubiquitous tourist art galleries and gift shops, Gig Harbor seems to have avoided the grossest forms of tourist quaintness. People who work at occupations other than waitress and t-shirt peddler are still quite visible in Gig Harbor.

So how exactly does one go about selling a community to the world?

Step number one is understanding how to target people who would be interested in this community, says Lund.

This is not really a family destination, she says. Rather, it’s more appealing to business travelers, couples, and retirees. Having determined the visitor demographics, she can target the town’s appeal.

“Everything I do is driven by our strategic plan,” she says. One of the goals laid out in the plan is to increase overnight stays by 35 percent by 2008. “Last year, we increased by 11 percent.”

One thing that could help boost that rate is the opening of what Lund refers to as “Bridge Number 3.” The effect of the original Tacoma Narrows Bridge in 1942 was short-lived, as “Galloping Gertie” fell famously into the Sound after only a few months of channeling people to the Kitsap Peninsula. But Bridge Number 2, which opened seven years later, permanently connected Gig Harbor to the mainland.

Now the people of Gig Harbor anticipate the effect of Bridge Number 3, which opens in 2007, with decidedly mixed feelings, which stem from the understand-

ing that doubling the capacity of the existing bridge will lure more people.

As we talk, Mike Davis ’78, the town’s new police chief, joins us. He contemplates the additional traffic across the bridge that will transport undesirables. Currently, the major crime in Gig Harbor is identity theft. Will that increase with the opening of Bridge Number 3? We’ll see, says Davis.

Bridge or no bridge, the area is changing. Costco is planning a new store, as are a number of other businesses.

One welcome addition is a new hospital that will serve Gig Harbor and Port Orchard. Interestingly, says Lund, the hospital will have no maternity ward. Research showed that people who live in Gig Harbor are generally beyond child-bearing age.

What this means to Lund is that younger families simply cannot afford to live here. Median household income in Gig Harbor is \$54,935, compared to \$45,776 for

the state. Median age for Gig Harbor is 37, compared to 35.3 for the state.

“We want to be a community that’s diverse enough that there’s housing for everybody,” she says. “We want to be a community. But that’s a hard thing.

“We’re not very ethnically diverse either,” she adds. “We’re pretty darn white.”

So maybe we can’t all afford to live in Gig Harbor. But we can still visit, right?

Let’s say, I propose to Lund, that I return next weekend with my wife. What would we do?

“Well, you’d go to the Tides for lunch,” she says. And then dinner at the Beach House. Or at the new Brix 25. (Not wanting to get back in the car, I find a new Italian restaurant, Terracciano. *Magnifico!*)

On the first Saturday of each month is the Art Walk, a tour of the galleries. But you can do that on your own, she says.

Be sure to take a guided kayak tour, she continues. The family that runs the kayak center is very knowledgeable of the ecosystem of Puget Sound.

After shopping and hitting all the galleries, get out of town, she says. Explore the outlying areas. Take a picnic to Key Peninsula. Go to the most beautiful state park in Washington, Penrose Point, 15 minutes from town.

And definitely visit the excellent historical museum.

“Also,” she concludes, “this is a good place to do nothing.”

Have a beer, she suggests. Read a book. Watch the boats go by. ■

—Tim Steury

Savor the FLAVOR

They started with soups and creative napkin folding, and spread out into a weekend of cooking and wine at the Savor the Flavor culinary show in Kennewick this March. The two-day fundraiser for the small, privately-run nonprofit Oasis School has become a major draw for eastern Washington, attracting several thousand attendees.

This year the event at the Three Rivers Convention Center featured well-known northwest chefs Mike Davis (right) of 26 Brix in Walla Walla, who demonstrated how to make beignets, and Tom Douglas of Seattle’s Dahlia Lounge, who made barbecue pork butt tacos and goat cheese fondue.

A third of the Oasis students have parents or grandparents who are WSU alumni. Peggy Hamilton (’85 M.S. Sci.) is cochair of the event, and the organizer who thought of inviting the stable of celebrity chefs. “I just kept making calls,” she says. Her efforts paid off, bringing in Toby Kim of the acclaimed Herbfarm restaurant in Woodinville as well as a bevy of chefs representing fine dining around the region, including the Spokane Club, the Coeur d’Alene Resort, and the Columbia Gorge Hotel.



PAHAN ROSE

For more information:

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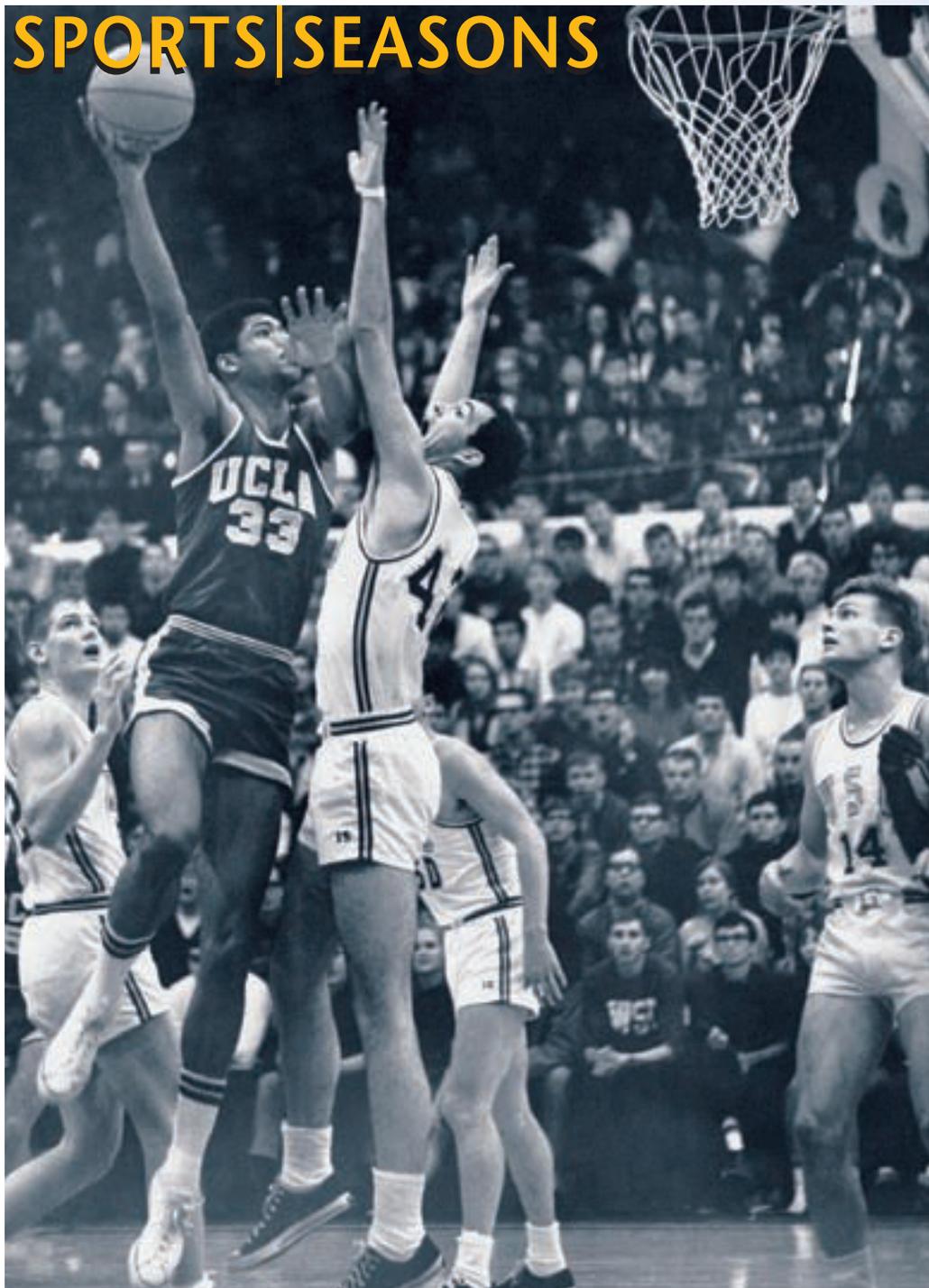


PHOTO BY BILL RAY / TIME LIFE PICTURES / GETTY IMAGES

THE WAY HE WAS

Jim McKean '68, '74
doing his
best to
block Lew
Alcindor

Jim McKean makes poetry of a powerful time

POETRY IN MOTION he wasn't. At least not on the basketball court, even though 6' 9" Jim McKean, his fadeaway jump shot, and his rebounding (he still holds the single-game Far West Classic rebounding

record of 27, set against Princeton in 1967) were anchors of the rebirth of Washington State University men's hoops in the mid-'60s.

"He didn't have real good feet and was not a great athlete," Marv

Harshman, WSU's head coach at the time, said a couple of weeks before the start of this year's NCAA tournament. But that wasn't the whole story.

"He had great hands, and he

SPORTS|SEASONS

SEASONS|SPORTS

played with his head," Harshman said. "He understood what he could accomplish. He was the ultimate team player."

In his new book, *Home Stand: Growing Up in Sports*, Jim McKean ('68, '74 M.A.) weaves together a series of essays about growing up in the Pacific Northwest in the late '50s and early '60s, coming to terms with his father and his family, and playing basketball at WSU, where his sensitive soul began to feel the cultural and political changes that swept across the U.S., including the Vietnam War protests and the civil rights movement.

"It was a powerful time for us," McKean told me by phone from his home in Iowa.

His writing becomes the poetry he lacked as a player. He leaves us with messages that are variously heart-warming and challenging.

"What I tried to do in my book is address sports in each essay, make each autobiographical or memoir-like, and arrange them in a loose chronology," McKean noted.

Usually our best sports books are by writers or journalists who have never experienced athletic competition at a high level. McKean is different. He played for a team that, during the years of UCLA's Lew Alcindor—later Kareem Abdul-Jabbar—was second only to the Bruins in what was then the Pac-Eight conference.

In 1966 McKean and his Cougar teammates defeated the Bruins and USC on the same weekend. That didn't happen again until Dick Bennett and his players turned the trick in 2004.

In 1964, Marv Harshman, "sipping coffee from a china cup [McKean's] mother reserved for holidays, [and] a plate of cookies balanced on his knee," recruited McKean to come to Pullman.

There McKean met Jud Heathcote, the new freshman coach that Harshman had recruited the same year. In the chapter, "Playing for Jud," previously included in the distinguished volume of *Best American Sports Writing* for 2003, McKean describes the way Jud taught his charges how to play Division I basketball.

McKean was a late bloomer and had much to learn. "Jud got him as a freshman," Harshman said. "He learned more as a freshman from Jud than he had in all of high school."

The "Jud" chapter makes it clear how Heathcote later achieved success, including an NCAA championship, at Michigan State, where, curiously enough, McKean's book is published. College basketball fans anywhere will find that chapter alone worth the purchase of the book.

"Jim's got to be the tallest poet in the world," Heathcote said by phone from Spokane, where he now lives.

I should stop here to point out that I grew up in Pullman and matriculated at WSU the same year as McKean did. Heathcote was my golf and tennis teacher in those long-ago days when coaches actually were teaching members of the faculty. I also knew Jud in my role as a reporter for the old *Pullman*

BATTLE OF THE BIG MEN **Jim McKean** remembers that everything he read and heard about UCLA's seven-foot-one-inch **Lew Alcindor** proved to be true. "He was so coordinated, so graceful. He just played in a different dimension," says the former Washington State basketball center, a year older and four inches shorter than his foe. Alcindor would lead UCLA to three successive NCAA titles.

Trying to contain college basketball's consummate big man proved frustrating and humbling, McKean acknowledges four decades later. He scored as well as most over the Bruin All-American. "Of course he did the same to me, only far better," he says.

The pair competed during the 1966-67 and 1967-68 seasons.

In preparing for Alcindor's first visit to Pullman in January 1966, coach **Marv Harshman** was at his innovative best. He had lanky **Dick Watters** stand on a stool near the basket during practice to simulate Alcindor's dominant presence on defense. In another drill, the Cougars were forced to put extra arch on their shots, as **Dick Jacobs** tried to swat balls away with two-foot long paddles taped to his hand.

McKean completed his three varsity years at WSU with 1,411 points and 844 rebounds—school records. Twice he was selected to the five-man Pac-8 Conference team.

Now he teaches courses in creative writing the way he used to play. "I try to encourage students to take risks [in their writing]," he says, "to experiment, to do something they haven't done before."

—Pat Caraher '62

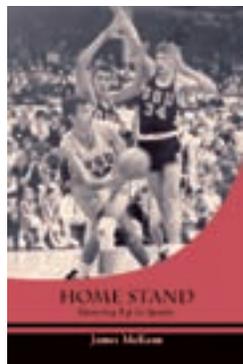
Herald and as sportscaster for KWSC, as it used to be called, where I called two of the games McKean discusses in this book. One was a re-creation, during which I sat in the studio in the bowels of Arts Hall, pretending I was in Los Angeles watching a game in which Alcindor scored 61 points, 28 of them in the last four and a half minutes, long after McKean had fouled out.

McKean has so successfully caught Heathcote in operation that, as I read, I found pictures forming in my mind, complete with the rhythm of Jud's speech and body that McKean has captured.

In writing this book, McKean was helped by the scrapbooks of his career kept over the years by his late father. Those scrapbooks provided the facts of McKean's career, of course, but they provided much more than that. They stimulated McKean's mind to recall the sights and sounds of his life—how, for example, from the locker room to the old Bohler Gymnasium court, the team had to go upstairs by the old swimming pool, and then through the crowded smoky hallways outside the gym.

Members of the WSU English faculty stimulated McKean's interest in writing, especially in poetry. He credited Profs. Howard McCord and Herb Arntson particularly, but also recalled John Ehrstine and John Elwood, the chair of the English department in which McKean majored.

He started out teaching at Columbia Basin College, while continuing to play amateur basketball, including regular games against inmates in the penitentiary, where he also tried to help would-be writers. He considered a coaching career, but decided against it, because he would have had to devote himself totally



In his new book, Home Stand: Growing Up in Sports, Jim McKean weaves together a series of essays about growing up in the Pacific Northwest in the late '50s and early '60s.

to it at the expense of writing. "I was surprised when he quit coaching to concentrate on his teaching," Heathcote said.

After he left the Pacific Northwest, McKean earned a master's degree in the Writer's Workshop at Iowa, as well as a Ph.D. at the same institution. He still lives in Iowa City, but he teaches at Mt. Mercy College in Cedar Rapids.

McKean says he'd like to put the lie to the idea that athletes can't be good poets.

"The skills—focus, concentration, and intensity—are the same," he said. "For athletes they have to be external; poetry has to be internal."

Stephen Dunn, a key player on what was perhaps Hofstra University's best basketball team ever (it compiled a 25-1 record), won the 2001 Pulitzer Prize for poetry, McKean noted.

Toward the end of the book, McKean goes back in time and space to revisit the athletic accomplishments of his aunt, Olive McKean, a swimmer who won a bronze medal for the United States in the 1936 Olympics and who later

married a University of Washington football star.

McKean takes along a video documentary by the controversial German filmmaker Leni Riefenstahl about the Berlin Olympics to show his aunt and uncle. The years fall away as they watch, and Jim sees his aunt at the peak of her athletic career and records stories he had never heard before.

He introduces another video that his Cougar teammate Ray Stein sent him. The video is a 1967 WSU-UCLA game film, which McKean watches with his daughter. For McKean, too, the years fall away. His daughter sees him the way he was, not the way he remembers he was.

Unlike most sports-related books, this is a book that can be read multiple times and in multiple ways. Each

time you'll find different messages. Read it slow for its poetry, or read it fast for its prose. Read it at one sitting to absorb its overarching themes, or read it one chapter at a time to enjoy its story-telling qualities.

If you were a student at WSU in the 1960s, you should read this book. If your parents were students at WSU in the 1960s, you should read this book to understand the time they lived in. If you're a sports fan, you should read this book.

If you're not included in those categories, read it anyway. ■

—Owen V. Johnson '68

Home Stand: Growing Up in Sports by James McKean (East Lansing: Michigan State University Press, 2005).

Owen V. Johnson teaches journalism and history at Indiana University, where he also announces swim meets and an occasional basketball game.



the **DOs** & **DON'Ts** of COUGAR FOOTBALL

Do...
catch every PaSS

Don't...
let them run

Do...
gain every yard

Don't...
let them
Score

2005 Schedule

- 9.1 IDAHO
- 9.9 @ Nevada
- 9.17 GRAMBLING STATE @ Seattle
- 10.1 @ Oregon State
- 10.8 STANFORD *Future Cougar Day*
- 10.15 UCLA *Homecoming*
- 10.22 @ California
- 10.29 @ USC
- 11.5 ARIZONA STATE *Dad's Day*
- 11.12 OREGON *Armed Forces Day*
- 11.19 @ Washington



Season Ticket Information

RESERVED SEASON
\$185 (\$160 ticket + \$25 facility fee)

FACULTY/STAFF
\$170 (\$145 ticket + \$25 facility fee)

FAMILY SEASON
\$395 (\$370 ticket + \$25 facility fee)
Extra youth season tickets can be added to the family plan for just **\$100** (\$75 ticket + \$25 facility fee).

FACULTY/STAFF FAMILY SEASON
\$375 (\$350 ticket + \$25 facility fee)
Extra youth season tickets can be added to the family plan for just **\$100** (\$75 ticket + \$25 facility fee).

WSU VS. GRAMBLING IN SEATTLE
\$17-\$47 (\$12-\$42 ticket + \$5 facility fee)

INDIVIDUAL TICKETS
\$35 (\$30 ticket + \$5 facility fee)
Oregon is \$45 (\$40 ticket + \$5 facility fee)
End Zone Adult: \$23 (\$18 ticket + \$5 facility fee)
End Zone Youth: \$15 (\$10 ticket + \$5 facility fee)

For more information about home game weekends, check out: football-weekends.wsu.edu

WASHINGTON STATE UNIVERSITY
FOOTBALL

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Professional Center Planned Carson Family Gift Launches Facility

The College of Business and Economics is building an innovative professional development center, thanks to a generous gift from Scott E. Carson '72, his wife, Linda, and their children.



The Professional Development Center will offer WSU students an opportunity to hone their interview and presentation skills through coached exercises and mock interviews.

The Professional Development Center will open its doors in Todd Hall in August. It will be adjacent to the Boeing Wireless Classroom of the Future, another project made possible through Carson's work and contributions from The Boeing Company.

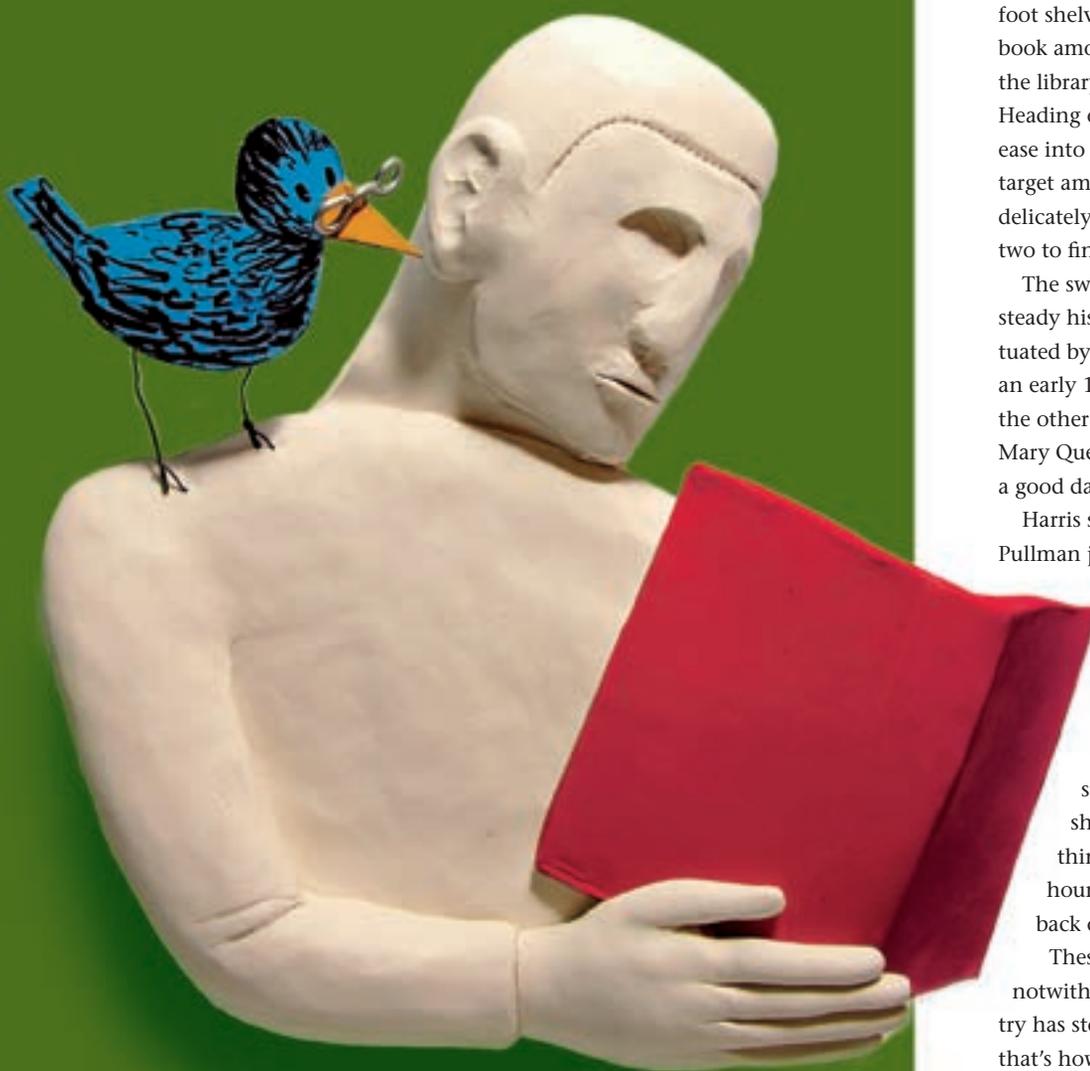
"The center will provide WSU students professional and leadership development opportunities to supplement their academic programs and prepare them for the best internship and career placements," said CBE dean Len Jessup. "Thanks to the vision and continued generosity of the Carsons, we are ready to create and equip this world-class center to prepare the thousands of future leaders that are our students today."

The new center will feature two fully equipped, simulated corporate board rooms and two executive offices where students can practice professional presentations and interviews. Students will participate in coached exercises to build their strengths in leadership and team building. In addition, the videotaping of mock interviews with faculty and visiting corporate recruiters will help students perfect their presentation skills.

An alumnus of the WSU business college, Scott Carson joined Boeing after graduation and moved steadily through a series of leadership positions. In December 2004, he was named vice president of sales for Boeing Commercial Airplanes. Prior to that, he served as president of Connexion by Boeing. Carson is a member of the WSU Foundation board of governors and the College of Engineering and Architecture advisory board. He chairs the WSU Foundation's Corporate and Foundation Relations Committee and the CBE's National Board of Advisors.

According to Jessup, the Professional Development Center will be a testament to the leadership the Carsons and their children, four of whom are alumni or current students, have shown with regard to the University. "Scott and Linda have always been first about students," Jessup said, "advocating for applied learning opportunities that will make each student more marketable, give each the skills to add greater value to future organizations, and ultimately position each to be successful personally and professionally."

Book Season



by Hannelore Sudermann • illustration by David Wheeler

Washington

JENNIFER WOODWARD and Geoffrey Harris like to linger in the basement stacks, in a section of Holland Library called the Deweys.

The two Washington State University juniors play a game amidst the eight-foot shelves. They hunt for the oldest book among the titles still filed under the library's old Dewey decimal system. Heading off in different directions, they ease into the rows of shelving, find a target amid the worn and faded covers, delicately extract it, and leaf in a page or two to find the date of publication.

The sweet smell of old paper, the steady hiss of the climate control punctuated by a "Hey" as one of them spots an early 1800s engineering manual or the other a color-plated biography of Mary Queen of Scots—"That's our idea of a good date," says Woodward.

Harris spent his first three weeks in Pullman just exploring the library. Now, he says he can direct you to the right shelves for American history, or economics, or mythology. Even with hours of exploration behind them, Harris and Woodward can still get caught up among the shelves. "I'll go in to find something, I'll get distracted, and three hours and several books later I'm back onto my subject," says Harris.

These WSU students and their ilk notwithstanding, the rest of the country has stopped reading books. At least that's how the National Endowment of the Arts tells it after releasing its *Reading at Risk* survey last summer.

Warning of "an imminent cultural crisis," the NEA survey points out that literary reading has suffered a steady decline. In a survey conducted in 1982, close to 57 percent of adults were reading

State loves its literature

literature, which the NEA defines as fiction, poetry, plays, and novels. In 1992 that number had dropped to 54 percent, and in 2002 it fell to 46.7 percent. The survey, which is based on U.S. Census Bureau polling over 20 years, notes that the rate of decline has accelerated, particularly among the young.

Surveying more than 17,000 adults, primarily over the phone, the study went on to break down readership based on social, economic, educational, and racial guidelines. Women read more than men, white Americans read more than those from other races, wealthier people read more, and the more educated you are, the more likely you are to read literature. Still, the amount of literary reading of any of these groups has dropped in the past decade.

The survey showed that fewer than 57 percent of respondents read any type of book in the previous year, down from nearly 61 percent in 1992. The NEA concludes that with the most precipitous declines in younger readers, we could be losing a generation of readers.

The survey and its key findings are in no way a guide to what should be done, says Garrick Davis, a spokesman for the NEA. It simply chronicles that there has been a decline in reading among Americans over the past 20 years.

The NEA's call for concern hasn't quite prompted reading and education experts to raise the alarm. But it has enhanced the discussion of all things books: who reads, what's being published, and how the industry is changing. It also prompted us here at *Washington State Magazine* to look at reading in our home state and ask the experts where we in Washington fit in the world of words.

"I don't think it's a very good survey," says Eric Ancil, a professor of education

at WSU. Is fiction reading declining? Absolutely, says Ancil. "But I don't think it's the crisis that the NEA made it out to be." The survey neglects whole categories of books like history, biography, and creative non-fiction, he says. "It's not really addressing reading habits. It's looking at whether people read fiction."

Ancil has stacks of books on his desk and by his bed, most of them non-fiction. "And I get a ton of magazines a month," he says. Look around Washington for examples of communities that read, he says. You see people browsing in bookstores on their lunch hours. They're ensconced in coffee shops with a book, a magazine, or a Sunday paper on the weekends. They're the kids who stop by the library on their way home from school and the commuters who wouldn't dream of boarding a bus or a ferry without a book in hand.

Ancil's advice to look around is echoed by other readers, writers, and professors. Washington is a state that loves books. It holds both big book festivals and intimate author readings. It has book groups, poetry clubs, and a potpourri of independent bookstores. Last year, according to a University of Wisconsin study, Seattle ranked as the second most literate city in the country, right after Minneapolis.

With a legacy of literary masters like Theodore Roethke and Mary McCarthy, Washington has long been a place for writers. Today Washington is home to noted authors including Pete Dexter, David Guterson, Ivan Doig, William Dietrich, and historian Laurie Carlson ('04 Ph.D. Hist.), as well as critically acclaimed poets Sherman Alexie ('94 Am. Stud.) and Jana Harris.

Ron Sher, a Seattle-area developer, is buying and building independent book-



Best books about Washington

Want to know more about the state of our state? Here's a selection of the best books about Washington, recommended by Glen Lindeman, editor of WSU Press.

Washington Territory by Robert E. Ficken. An account of the 36 years Washington Territory waited for statehood and the railways to connect its east and west sides. (WSU Press)

The Nez Perce Indians and the Opening of the Northwest by Alvin M. Josephy. A well-researched history of the years from the time of Lewis and Clark to the defeat of Chief Joseph in the late 1800s. (Mariner Books)

The Great Columbia Plain: A Historical Geography, 1805-1910 by D.W. Meinig. A classic first published in 1968 and re-released in 1995. (University of Washington Press)

Puget's Sound: a Narrative History of Early Tacoma and the Southern Sound by Murray Morgan. The story of Tacoma from Vancouver's arrival in 1792 to the establishment of Fort Lewis in 1916. Filled with local characters and major events for the state. (University of Washington Press)

Peoples of Washington: Perspectives on Cultural Diversity by Sid White and S.E. Solberg. A celebration of the cultural and ethnic diversity of Washington and an overview of the state's many ethnic communities. (WSU Press)

For purchasing information, visit wsm.wsu.edu.

stores at a time when they are vanishing nationwide. In 1999, Sher ('79, Ph.D. Ag. Econ.) bought Seattle's landmark Elliott Bay Book Company. He also started Third Place Books in a struggling Lake Forest Park shopping center. Elliott Bay continues to offer regular author readings and has retained its unique character under Sher's ownership, while Third Place Books provides cultural events, community forums, and even a cooking school. More recently Sher opened a Third Place store in the Seattle neighborhood of Ravenna. It's all



Author Kim Barnes ('85 M.A.) sees a growing demand for literary non-fiction among readers in the West. Her autobiography *In the Wilderness: Coming of Age in Unknown Country* was a 1997 Pulitzer finalist.

ROBERT HUBNER

. . . according to a University

about enhancing quality of life, he says. "I'm trying to create community gathering places."

AUTHOR KIM BARNES ('85 M.A. English) spends her evenings in a big leather chair, a stack of books and magazines on the table beside her. If the writer turns around, she can look through the trees that cradle her home and sometimes watch a flock of geese drift over the rolling fields of the Palouse. More often than not, though, she's watching a flock of words drift across the page of some new literary morsel or manuscript from a friend or former student.

Barnes remembers the hullabaloo raised by the NEA survey last summer and thought it was silly. "Everybody I know reads," she says. "My dad barely graduated from high school, and no one read more than he did."

Almost since the country's founding days, America has been a society that reads across social strata. With public schools, libraries, and democratic equality, everyone had the right to read and access to books.

Alexis de Tocqueville touched on this in his *Democracy in America*, noting that the "trading classes" had a taste for literature and a hunger for a wide range of materials. By contrast, he writes, an aristocracy has only a small class of selective readers.

In 1997 Barnes was a Pulitzer finalist for her nonfiction work, *In the Wilderness: Coming of Age in Unknown Country*, for which she also won the Pacific Northwest Booksellers Association award. Much of her work falls into a category that wasn't discussed in the NEA survey.

"There's a great deal of reading going on right now, and it's in all kinds of nonfiction," she says.

"The historical nonfiction market is enormous. Look at the best-seller lists." She



points to recent biographies of Benjamin Franklin and Andrew Jackson. Not only is that good reading, it's helping with a kind of historical literacy, she says.

Barnes has a great view from her perch as an author, creative writing professor at the University of Idaho, and Idaho State Writer in Residence. She has visited with readers throughout the Northwest and gotten a sense of what books mean to them. "People love the physical presence of books," she says. "They love the smell. They love to own them. That's not going to change."

The Northwest is a natural place for readers, especially with book cities like Seattle and Portland, she says. There's a critical mass of readers there, a healthy bookstore selection, and great opportuni-

ties there for people drawn to education and enlightenment, she says. But book culture is not limited to the big cities.

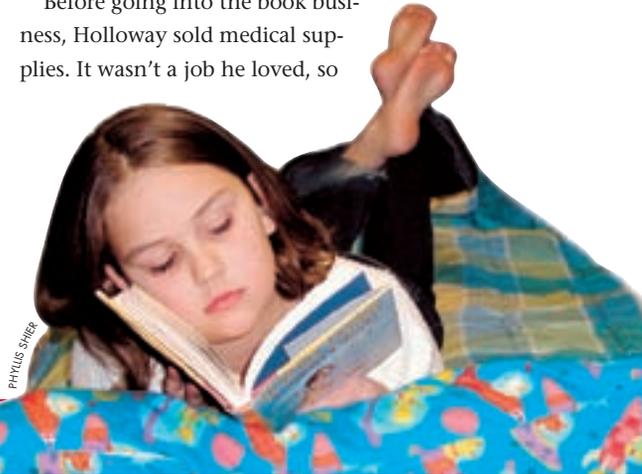
Barnes is often invited to small community book events. "These literary festivals are springing up all over," she says. "People show up and sit around in lawn chairs in the park. Or it's a bunch of little blue-haired ladies at the library."

"There's a tremendous community of readers and writers in the Northwest," says Barnes. "It's far flung. And there are pockets of readers in every rural community. They're folks who meet at the library, loggers, farmers, wives, teachers."

WHEN CLYDE HOLLOWAY ('73 Bus.) unlocks the door to his small Vancouver bookstore each morning, he's not worried about the state of

reading in the country. As owner of So Many Books, he's thinking about the multitude and variety of new and used tomes that line his shelves, that customer who's always looking for something about Zen Buddhism, and whether the local book group will be settling into his meeting room that night.

Before going into the book business, Holloway sold medical supplies. It wasn't a job he loved, so



Raising good readers

Pamela Smith Hill started reading to her daughter when the child was just three months old. It was a habit the children's book author continued almost daily, moving on to picture stories, then to books with words, and finally short stories and novels. Until middle school.

"One day, she looked at me and said, 'Mom, I can do my own reading now,'" says Smith Hill. "I was crushed."

Though she had lost an avid listener, Smith Hill had created a lifelong reader.

Serious readers, especially young ones, are in decline, according to a National Endowment for the Arts survey published last summer. The survey, titled *Reading at Risk*, notes the greatest declines are in young adults. Of those aged 18 to 24, 35.7 percent fewer are reading now than their counterparts in 1982, and in the 25 to 34 group, there is a 29.2 percent drop.

The study notes apparent problems in making literary reading appealing to teenagers. It cites a National Institute for Literacy study that says a smaller percentage of 13- to 17-year-olds read for fun daily in 1999 than in 1984 and that a smaller percentage of the teens saw adults reading in their homes.

And today with movies, video games, soccer practice, and violin

lessons, it's much less likely a child will have the energy or even the time to just pick up a book.

But that trend can be reversed, say experts. And parents can play a greater role in developing regular readers.

Start early and start with the simplest books. "When you're reading to a child, it's a good idea to point to the words," says school library director Claire Gatrell Stephens ('78 Speech Ed.) "It trains their eyes to move from left to right."

Gatrell Stephens, author of two texts for teachers on how to choose and use children's books, serves as media director at the Freedom High School library in Orlando, Florida. Her most recent, *Picture This! Using Picture Story Books for Character Education in the Classroom*, was published last year.

Once children can sound out words for themselves, some parents feel their job is done, says Gatrell Stephens. "But it's very important to continue reading with your child and talking with your child about what you're reading," she says. "Broaden their understanding in a way that takes in possibilities, options, and things like values."

In *Picture This*, she uses the example of *Enemy Pie*, a picture story book by Washington author Derek Munson in which a little boy doesn't get along with his new neighbor, but through

a number of steps gets to know the new child and ultimately makes a friend. Gatrell Stephens urges adults to go over the details, ask questions about the plot, and talk about whether something new and scary can turn out to be good.

Some children are reluctant readers, says Gatrell Stephens, who suggests books on tape that children can listen to while reading through the paper version, and graphic novels, which are illustrated like comic books, but tell longer, more complex stories. "For a kid who doesn't want to crack open a book at all, it may be useful," she says.

Most children will get to the point of wanting to read alone, but even then parents should stay involved. The experts suggest picking up the same books your children are reading. Smith Hill, who is director of the Professional Writing Program at WSU Vancouver, promises parents they won't be bored.

A lot of young adult literature is meatier than many of the adult best sellers, she says.

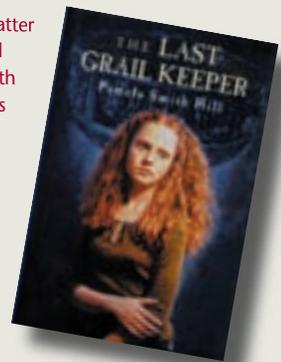
Smith Hill notes a crossover in youth and adult genres. Many works, like Harper Lee's *To Kill a Mockingbird* were written for grownups, but became appealing as literature for kids. And the reverse is true with books like *Huckleberry Finn* and the Harry Potter series, she says, noting that the British pub-

lisher of the latter has produced the novels with subtler jackets for adults.

Smith Hill also recommends keeping abreast of what's new on the market. While a young reader might connect with the classics, he might really find something that speaks to him in contemporary fiction. One of her most recent books is *The Last Grail Keeper*, written for teens.

The experts point to efforts like mother-daughter book clubs, family reading times, and simply buying books for your children because owning them and keeping them in their rooms may provide a sense of connection.

The key is finding the right fit for the reader. That's why librarians are such an important part of a child's education, says Gatrell Stephens. They can get a sense for what appeals to your child and, with their knowledge of what's out there, find the books to keep your young reader hooked. ■





Bookstore owner Clyde Holloway '73 steps out the door of So Many Books to visit with a friend. His Vancouver bookstore, like the shops of many other independent booksellers, is a fixture in the community.

BILL WAGNER

Independent bookstores are like people—they have their own character and style.

he and his wife Beth started with their vast collection of books at home as used stock, ordered some new books, and pulled together a small bookstore in the laid-back Uptown Village neighborhood, which lacks parking meters and holds a

variety of shops, eateries, and antiques stores.

While he loves to read, Holloway struggles to find the time. His solution: "I give up my sleep to do my reading."

Being in the business of books has brought Holloway closer to his neighbors and his community. He takes a special joy in seeing a young reader dive into his shelves on a hunt for something new, and he has a familiar comfort with his regulars who stop by for coffee or to cruise the new paperbacks. "They'll come in and buy books. Or they'll just talk books," he says. "I am perfectly happy with someone who comes in and sits down in an easy chair and reads."

Independent bookstores are like people—they have their own character and style, says Thom Chambliss, executive director of the Pacific Northwest

Booksellers Association (PNBA). They serve readers in ways the big stores can't, he says. They often have hard-to-find and out-of-print books, and they are true members of the community, he says.

"We have some great stores in the Pacific Northwest," he says, nodding first to the two best known: Powell City of Books in Portland and, his favorite, The Elliott Bay Book Co. in Seattle. "I love the size and the layout," he says, of the store in downtown Seattle's oldest neighborhood, just a block up from the waterfront.

Those that are mostly locally known, like Fairhaven's Village Books, The Secret Garden in Seattle, and the homey Eagle Harbor Book Co. on Bainbridge Island, have their followings. These stores have targeted their neighborhoods and communities and stock their shelves to suit their customers' interests and tastes. "To a lot of regular readers, that's important," says Chambliss.

THAT'S NOT TO SAY something isn't at risk. The small bookstores, the town libraries, the school librarians all stand in jeopardy of competition and budget cuts. The number of indepen-

dent stores nationwide is dropping, says Chambliss, noting that the Northwest has been affected, too. In 1994 the booksellers group had 345 members and in 2004 counted just 246.

Last year, two of Washington's hallmark cultural festivals disappeared from the Seattle scene: the Northwest Bookfest and the Seattle Fringe Festival.

The Bookfest started out in 1994 with one good idea, two enthusiastic organizers, and minimal funding.

"It was cheap, it was grungy down on the docks there, it was cold, and it was a raging success," says Chambliss. The event boasted best-selling authors, and some years attracted as many as 25,000 readers. But the bookfest changed locations several times, lost local backing, and finally just ran out of money. Last spring organizers announced the end of the event.

As if that wasn't dire enough, the 13-year-old Fringe Fest, which celebrated the local not-so-mainstream arts scene, also ran into money problems. It struggled to pay its artists from the previous year and finally closed up shop.

Still, those in the book scene don't

see the failure of these festivals as signs of reading's demise. Maybe the festivals faded because there's so much for readers to do. A rich diet of literary events can be found throughout Washington. Seattle, for example, is home to readers' and poetry series, countless book clubs, and even very specific literary organizations like the Northwest Classics Society, whose members share a passion for Homer.

Also, new book festivals and literary events are popping up like mushrooms around the state. The most notable success is GetLit in Cheney and Spokane. This April, the Eastern Washington University Press celebrated its seventh annual GetLit festival with Salman Rushdie, David Sedaris, and poet Rita Dove. And in past years it has attracted national notables like Garrison Keillor, Dave Barry, and Kurt Vonnegut.

It's a good time to be a reader. The independent bookstores are finding new ways to capture and serve their customers. A Book for All Seasons in Leavenworth started hosting summer book camps for young readers five years ago. "Last year we sold out all of the camps, so this year we're thinking about adding two more weeks," says owner Pat Rutledge. Island Books on Mercer Island hosts a monthly book group, with a meaty reading list that this winter included *Mountains Beyond Mountains* by Tracy Kidder and *Elizabeth Costello* by Nobel Prize-winner J.M. Coetzee.

These events, reading programs, and book personalities are all valuable social and cultural resources, says Chambliss. People should make the effort to use them, he says. And read regularly, he says: "Pick up a book a week."

Back on campus, when they're not in the Deweys, Woodward and Harris might not be able to get in a book a week, with a full homework schedule. But that doesn't mean they don't have time for a little Robert Burns poetry or a seafaring adventure. And they have a list of books they're planning to read this summer.

Books can educate, inspire, divert, and sometimes provide an escape, says Woodward. "Life without books really wouldn't be life." ■

WE WERE WONDERING what to read this summer, so we asked the experts here on campus for their favorites. After much musing, they came up with an enticing list of approachable books. We're running out to get them. So should you.

Will Hamlin, Shakespeare scholar • *Will in the World: How Shakespeare Became Shakespeare* by Stephen Greenblatt. A learned but highly readable book, says Hamlin. He recommends it to anyone who cares about Shakespeare, drama, or the nature of astonishing talent.



Alice Spitzer, librarian • *The Professor and the Madman: A Tale of Murder, Insanity, and the Making of the Oxford English Dictionary* by Simon Winchester. Spitzer loved the improbability of the situation—a man locked away in an insane asylum contributing more than

10,000 definitions and illustrative quotations for the *Oxford English Dictionary*. The book is well researched, beautifully written, and entertaining.

Brian Tissot, environmental scientist, WSU Vancouver • *Mote in God's Eye* by Larry Niven and Jerry Pournelle. This work of science fiction focuses on the first contact with an intelligent alien race and a culture much older than our own. It illuminates some interesting issues facing mankind.



Erich Lear, music specialist and interim dean, College of Liberal Arts • *Lexicon of Music Injective* by Nicolas Slonimsky. The author quotes music reviews written by critics who lived at the same time as the composers and performers. You can enter

the book at any point, and it provides a lighter insight into all that "serious" music.

Tonie Fitzgerald, WSU/Spokane County extension faculty • *Letters from Yellowstone* by Diane Smith. The novel follows a lone woman, an amateur botanist, in a party of authorities from the Smithsonian Institution. Her compelling story is told in letters and telegrams.

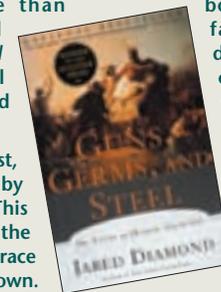
Alan Busacca, soil scientist, geologist • *Terroir: The Role of Geology, Climate and Culture in the Making of French Wines* by James E. Wilson. Great and entertaining, though dense. It introduces the concept of *terroir* to American wine lovers.

Marina Tolmacheva, historian • *Master and Commander* by Patrick O'Brian. A seafaring adventure set in the time of the Napoleonic wars, this book is the first in a series that offers a good tale rich with historical details.



Kim Barnes '85, author, teacher, and Idaho's Writer in Residence • *Bel Canto* by Ann Patchett. Barnes has been wanting to read this book by Patchett for a long time "just for the level of craft, her ability to bring all these characters in one room and set them in motion."

John Irby, professor of journalism who teaches news reporting, editing, and media ethics • *Bias: A CBS Insider Exposes How the Media Distort the News* by Bernard Goldberg. Gives readers a better understanding of how the media work. Dan Rather is one of the chief characters Goldberg denounces.



Eric Anctil, mass media and education specialist • *The Language Police: How Pressure Groups Restrict What Students Learn* by Diane Ravitch. "It looks at how generic our American curriculum is becoming," says Anctil. "We're so afraid of offending anyone, we're taking all the good stuff out."



Karen Lupo, archeologist • *Guns, Germs and Steel: The Fates of Human Societies* by Jared Diamond. A good read for people interested in larger, big-picture type questions. Very entertaining!

James Krueger, sleep researcher • *Evolutionary Psychology, The New Science of the Mind* by David M. Buss. Anyone interested in human or animal behavior will love this book. Students find it fascinating, in part due to the subjects covered, such as mate selection, sexual behavior, and war, and how evolution plays a role in how we behave.



Bob Scarfo, landscape architecture professor in Spokane • *Walt Whitman*, the Viking Portable Edition. Whitman is one of the few individuals who see the urban environment and the country in a positive and constructive manner. His visceral interpretation of life is full of hope and appreciation.

Leonard Orr, English, critical theory professor at WSU Tri-Cities • *The Plot Against America* by Philip Roth. A startlingly alternative version of American history, imagining the country with Charles Lindbergh as president and the U.S. forces not joining the Allies in World War II. The book is frightening and breathtaking.



Candis Claiborn, associate dean, College of Engineering and Architecture, and atmosphere and particulate expert • *The Secret Life of Dust* by Hannah Holmes. The author traces all kinds of dust, from cosmic to volcanic to international pollution. She writes about how dust could have led to the demise of dinosaurs and how it might affect our own health. She does this in a way that brings out the personalities of scientists who study dust.

Pamela Henderson, business and marketing professor at WSU Tri-Cities • *The Goal* by Eliyahu M. Goldratt and Jeff Cox. A novel about a plant manager whose business is failing and whose marriage is falling apart. His efforts to make the plant profitable and bring the workers onboard illustrate state-of-the-art management principles.

Fredrick Peterson, education professor who specializes in educational leadership at WSU Spokane • *Master of the Senate: The Years of Lyndon Johnson* by Robert A. Caro. An accessible account of Johnson's rise to power in the senate, his use of that power, and his relationships with other influential people during his years as a leader in Congress.

For an expanded reading list from our experts, and books to buy by faculty and alumni authors, see wsm.wsu.edu. ■

SHOCK PHYSICS

POWER, PRESSURE, AND PEOPLE

by Hannelore Sudermann • photography by Robert Hubner

When Washington State University's Shock Physics Laboratory first opened a half-century ago, it focused on a fairly new field—looking at what happens to an object under intense, immediate pressure. Bright graduate students brainstormed exotic experiments which they fired through a 40-foot-long gas gun housed in the basement of the Physical Sciences Building. High pressure and short timescales were the key ingredients.

Back then, the program was supported by national defense money, had ties to the nuclear industry, and produced scientists who went on to work at national laboratories like Sandia, Livermore, and Los Alamos.

Today the guns are still in the basement. The students are still concocting complex experiments. And the lab still has ties to the keepers of the nation's nuclear stockpile. What has changed is the notion of what is fast and what is short.

The laboratory has evolved into a large institute with its own \$12.4-million building.

It encompasses a cadre of top

LEFT: Physicist James Asay and post-doctoral researcher Xianglei Chen stop in the hall to discuss Chen's project studying the effects of impact and pressure on aluminum. Asay, who was recently inducted into the National Academy of Engineering, is associate director of WSU's Institute for Shock Physics.





*Often in science,
simplicity is elegance.
Shock physics is a
simple idea.*

Professor Yogendra Gupta ('72 Ph.D. Phys.), head of the Institute for Shock Physics and recipient of WSU's Eminent Faculty Award, holds the mangled remains of a projectile that was fired through the lab's four-inch gun.



LEFT: Senior research associate Stefan Turneaure (left) makes a calculation on one project, while graduate student Seth Root determines if his projectile is perfectly cylindrical for another.

scientists and some of the newest and best equipment, cameras, and computers for the research field and now gets millions of dollars in federal research support. Most recently, it received an \$18-million extension on a Department of Energy grant and \$6.5 million from the Office of Naval Research to expand applied shock research to Spokane.

"This is truly a multidisciplinary research organization," says Yogendra Gupta ('72 Ph.D. Physics), director of WSU's Institute for Shock Physics.

With the scientists and students from the University's physics, chemistry, and engineering departments, and with millions in defense funding for research, "we have a terrific amount of freedom here to do what we want to do." And what Gupta wants to do is conduct first-rate fundamental science, produce first-rate scientists, and perform work in conjunction with the national laboratories.

Often in science, simplicity is elegance. Shock physics is a simple idea. It

“This is a passion, not a job,” Yogi Gupta says, gesturing

is the physics of what happens to material that has been hit with a wave of shock, like a meteor slamming into a hillside.

At WSU, shock waves have traditionally been made by giant guns that shoot one object into another with such force and speed and precision that the impact can, at least for an instant, change the physical and chemical properties of the target object. Now the equipment here has been expanded to include laser/shock and high-pressure laboratories.

The Institute for Shock Physics pairs big curious kids with big fabulous toys. Their research, which can have practical applications, really comes about from the big question “What if?”

Simple, yes. But these experiments are connected to a problem so big and complex that few want to think about it, and most have forgotten it exists. Pullman, an oasis of education in the rural west, is very much on the minds of leaders in the national nuclear security scene.

Feeding the future

When Yogi Gupta looks at new graduate students, he wants to see more than just grades and resumes. He wants to see them explore. He watches how they work in the

labs and how willing they are to try different things before settling on a course of research. He looks beyond their basic scientific ability to gauge their curiosity, their resourcefulness in building their own experiments, and their excitement.

“One of the biggest challenges facing this nation now is the lack of U.S. citizens studying science and engineering,” says Gupta. And when it comes to shock dynamics the challenge grows to needing well-educated scientists who are willing to take risks, he says.

“I view myself as a symphony conductor. And you know, a good symphony needs good musicians,” he says. On the floor below his office the musicians are bent over their workbenches piecing together a target or dashing between workshops and labs with tools in their hands, preparing to fire an experiment.

One winter afternoon, student Brandon Lalone carried into the lab a projectile he needed to tweak once more before running his laser shock experiment scheduled a few days out. Seth Root zipped by into the low light of a nearby room and pushed a couple of buttons on a machine. He explained

he was adjusting the light that will help him see how benzene, a highly flammable liquid, reacts under the pressure of a shock wave.

“My whole experiment is going to last less than two microseconds,” Root says of the project he has spent a week preparing and an entire day just setting up. He looked up from the computer and laughed, “You know, in my three years here, my total experiment time is less than one second.”

Meanwhile, in a nearby laboratory, chemist James Patterson, a postdoctoral researcher, works with RDX, a highly explosive material. While RDX can be volatile when mixed with other explosives, it’s no danger in the amount Patterson uses, as he studies what happens to the material when it is shocked at different pressures.

Patterson admits that preparing for experiments can be somewhat tedious. He needs a crystal of RDX that’s only 400 microns thick, just four times the thickness of a strand of human hair. “It doesn’t just come that way. I have to hand polish it,” he says. “It takes me eight to ten hours to do it. I just turn my

RUNNING THE GUN

BELOW: James Asay (left) looks on while project engineer Kent Perkins ('03 Mech. Engr.), project engineer Kurt Zimmerman ('90 Sci., '92 M.S. Phys.), and guest Dave Strange put the finishing touches on the new two-phase gun in the basement of the Institute for Shock Physics.

CENTER: In the safety of the protected control room in the ISP impact lab, the team fires the new gun for the first time. Cory Bakeman ('04 Elec. Engr.) looks on while Perkins runs the gun under the watch of retired professor Paul Bellamy and Strange.



to the building around him and the students below.

brain off and sand. Then I look up and realize it's almost time for lunch."

The key thing to remember for all these experiments, says Patterson, is that you really need to know where you're going, and what to look for. "You can't do a shot in the dark," he says, then laughs. "Though you could say we sit in the dark when we do our shots."

When it comes to explaining exactly what happens here under Gupta's watch, even some University leaders struggle with the words.

Gupta says he has no problem summarizing what takes place at the shock institute. "Do you want the one-minute version, the five-minute version, the one-hour version, or the 50-hour version?" he says, throwing up his hands. "The fact of the matter is we are about scientific excitement."

It's clear Gupta loves his work, he loves his students, he even loves the fancy hand-tufted carpet on the floor of his new office, which he's quick to say was a gift and didn't come from any taxpayer dollars. "This is a passion, not a job," he says, gesturing to the building around him and the students below.

Nuclear impact

The legacy of shock physics stems back to the late 1940s. In the wake of World War II, the Soviet Union tested its first nuclear device, and the arms race was on. The United States determined that staying ahead would require the best scientists and the best weapons. While the private research labs were taking some of that responsibility, more needed to be done.

A new federal funding model emerged, one that channeled money from the U.S. Department of Defense, the National Science Foundation, and the Department of Energy into universities around the country for research and the training of the next generation of national scientists. By the late 1950s, WSU's physics department had started on shock-wave research.

In 1965 WSU hired George Duvall from the Stanford Research Institute, a private California-based company that performed work for the government. Duvall had established SRI's Shock Physics Group and took part in the earliest examinations of shock propagation.



Cory Bakeman pulls the catch chamber off the back of the gun to retrieve the fired projectile.

He brought that expertise to Pullman, where, as one former student says, he was one of the fathers of modern-day shock physics.

In 1968, WSU became the first university in the country to conduct shock experiments. It had a U.S. Department of Defense-funded laboratory dedicated to shock dynamics. The high-caliber program drew students like Yogi Gupta, James Asay, Jerry Forbes, and Robert Hixson, the next generation of leading scientists in the field.

Gupta went on to work at the Stanford Research Institute, Asay went to Sandia, Forbes went to Lawrence Livermore, and Hixson landed at Los Alamos.



Bakeman reaches into the target chamber of the gun to prepare the diagnostic instruments.



Hixson, now a Los Alamos research leader, looks back fondly on the days he and his classmates would perform tests with the four-inch-diameter gas gun in the basement. A single thesis would take a year or two to organize, and there was always an edge of worry that when the gun fired, the sensors might not work and you'd have to start all over again. And though the work was demanding and rigorous, there was a playful rivalry among the classmates.

"It was a very vital effort back in the '70s," he says. "And there was a lot of competition to fire the gun."

Today Hixson uses shock dynamics to better understand the detonation behavior of high explosives. He also keeps an eye on the efforts of the WSU lab, which, like the national labs, has physicists working with chemists and engineers to perform experiments. While the research there is important, the University's main contribution to the national scene is developing the next generation of guardians of the country's nuclear stockpile, he says.

Other experts agree. The government leaders in the beltway aren't thinking 15 years out, they may not even be thinking past the next budget cycle, said Jay Davis, nuclear physicist and former director of the U.S. Defense Threat Reduction Agency, when he was on campus in 2003. It's up to the academic and industrial communities to think ahead, he said. In fact, American scientists are now designing new nuclear arms that are meant to be more stable, reliable, and longer-lasting. They are planning to finish designs in the next five to ten years.

WSU and other schools work closely with the national labs. Besides producing scientists, the schools perform auxiliary research and develop new techniques.

WSU's ties with Sandia helped garner the giant two-phase gun that sits along the east wall on the bottom floor of the institute. It was a gift for the new shock facility, and engineer Cory Bakeman ('04 Mech. Engr.) has been piecing it together since last May. Having a gas

phase as well as a gunpowder phase makes the gun faster and more powerful. It will allow for experiments at three times the impact the lab can achieve now. "We needed it. They had it and weren't using it," says Gupta of the gun.

It arrived in pieces packed in crates, stacked in boxes, and sometimes just loose with a label. The one thing it didn't come with was assembly instructions.

The biggest components, the barrel and frame, are the heart of the equipment, but much of the rest Bakeman has had to design and build. "The job entails kind of all the aspects of engineering," he says. "It's like putting a puzzle together with half of the pieces gone."

Stockpile students

Federal agencies and national laboratories like Lawrence Livermore, Sandia, and Los Alamos have an interest in seeing Washington State University's program and others like it succeed.

"They are a key component for developing people for us and techniques," says David Crandall, head of research and development for the National Nuclear Security Administration. "It's just the kind of place we need to have connections to and we need to have trained scientists from." A few years ago, the NNSA adopted WSU as its principal university for shock physics work.

The connection joins WSU with a small, select group of schools, including Rutgers, Cornell, the University of Texas, and the University of Nevada Las Vegas, which all have a number of scientists working with support from the NNSA.

A nuclear weapon has as many parts to it as a Toyota, Crandall says. "It's more complicated in some ways and less complicated in others." The hardest part to understand is the initial phase, when an explosion triggers a nuclear reaction, he says.

Nuclear testing in the United States was halted in 1992. Since then, the keepers of the national stockpile have had to work out experiments to determine how the weapons are aging. They have to figure out how to keep them effective and how to protect them from accident

or terrorist design, says Crandall. And they have the complicated job of figuring out how to do all this without ever setting one off.

The heart of a nuclear weapon is the behavior of plutonium, uranium, and neutrons. The scientists must perform simulations to figure out what to do with the nuclear weapons if they have problems or to protect them from being set off accidentally or by sabotage. The other part of their job is to ensure those weapons can work, or as Crandall describes it, maintain the deterrent.

In the next 10 to 15 years, as the stockpile ages, simulations will be increasingly important, says Crandall. Precise physical measurements, higher-energy physics, and how materials move and behave at very high pressures and densities are tied to shock physics, he says. "It turns out to be a key element in all of them."

"The public really doesn't want to talk about nuclear weapons very much, but citizens do expect the president and governmental organizations to do the right thing," says Crandall. That includes maintaining a nuclear deterrent that's safe, protected, and dependable without nuclear testing, he says. "We need shock physics, and there are not many institutes that do it."

Shock scientists and engineers steadily flow through the Pullman institute to visit with Gupta, check up on the research, and advise the students, who are grateful for the attention and the chance to rub elbows with the leaders in their field.

The students who come out of the shock institute are sound scientists, says Gupta. "When they leave here they are independent thinkers." He warns them not to bask in their successes while here. It doesn't matter if they've made one great breakthrough; it will be forgotten in a couple of years. "What's important is they keep on doing wonderful things for the next 20 years."

Gupta jokingly tells their potential employers that if they don't like their new hires from WSU, "they can send them back."

They never have. ■

BEAR BONES

A MURDER MYSTERY

by Hannelore Sudermann

It was five days before the start of fall semester.

Students loaded with fish tanks, suitcases, and bags of books were already moving into the dorms. Professors in their offices were readying their first lectures.

Washington State University was waking from its summer slumber.

For the grounds workers, it was a day for feeding animals, checking fences, and tending the giant compost pile at the back of the University's grounds.

But in a nearly forgotten corner of campus, a body was rotting.



This is a strange tale of death and dismemberment, links to a legacy of forensic investigation, and lots and lots of bugs.

A man atop a tractor was the first to spy a patch of black in the weedy growth beneath an old apple tree. Fighting off wasps, he went in for closer look

It had black hair, was covered in bugs, and, by the smell of it, had been dead for a while. His curiosity gave way to disgust, and he went looking for his supervisor.

It must have been easy to drop the body in this part of Pullman, a section that sees so little traffic. The old county road where locals once dumped worn tires and broken stoves was now research land where hardly anyone but the groundskeepers ventured.

But somebody had an ugly secret to hide. This is where he left it.

This is a strange tale of death and dismemberment, links to a legacy of

forensic investigation, and lots and lots of bugs.

Farm manager Fred Loaiza was among the first to see the victim up close. The worker who grabbed him and drove him out to the site wouldn't say what he had found.

When they got to the secluded spot, Loaiza rolled down his window. "It was like a wall slamming me in the face with that stench," he says. He could tell by the mass of black fur that it was a bear.

Loaiza called campus police. They called the state Department of Fish and Wildlife. A game agent soon arrived to study the scene. He determined the creature had been killed, harvested for parts, and then illegally dumped. Before driving off, the agent advised Loaiza to leave the carcass and let nature take its course.

ROBERT HUBNER

Bethany Marshall, assistant professor of entomology.



That was something the farm manager couldn't do. "It was right in front of our equipment yard entry," he says.

He asked his crew to "go out there and scrape the bear up," adding that the remains were like Jell-O. They moved the carcass to a hay field. "Then someone said, 'we've got to bury it,'" he says. "I agreed. I was worried that someone else would discover it."

So they returned with a backhoe and left the bear several feet beneath the ground.

Loaiza figured that was the end of the strange story.

But then, he had yet to meet Bethany Marshall.



BUGS AND BODIES

Assistant professor Bethany Marshall is a small, intense woman with hair like fine copper springs. Her office is a museum of oddities, with maps, a skull, framed moth specimens, vials of soil, and a half-eaten bag of Mission tortilla chips stuffed under the desk. Her bookshelves are filled with a standard selection of biology texts spiced with titles like *Maggots*, *Murder*, and *Men and Death's Acre*. Near her computer, she has taped up a bumper sticker that says, "Friends help you move. Real friends help you move bodies."

Marshall came here four years ago to teach entomology. She describes her professional journey to WSU as a "twisty path" that included teaching junior high in Chicago and earning a Ph.D. in entomology at Michigan State University. While she was working on her doctorate, she stayed connected with the Chicago school and created science outreach programs for the students. She also found herself consulting with officers about bugs and the role they play in decomposition, a field still fairly new to crime solving.

Not long into her work at WSU, she found a group of students who shared her interest in insects and crimes. They are young adults who like science, but



Crime scene investigation, Pullman: Under the careful scrutiny of entomologist Beth Marshall, students in the WSU Forensics Club unearth a black bear that was dumped on campus last summer. They collect insects at the scene for clues to how long the bear has been dead and where it may have come from. Crime scene experts are using insects more and more as evidence in their real-life investigations. PHOTOS BY TOM WILLIAMS



Appendix A.1

COLLECTING INSECTS FOR HOMICIDE INVESTIGATIONS

Contact:

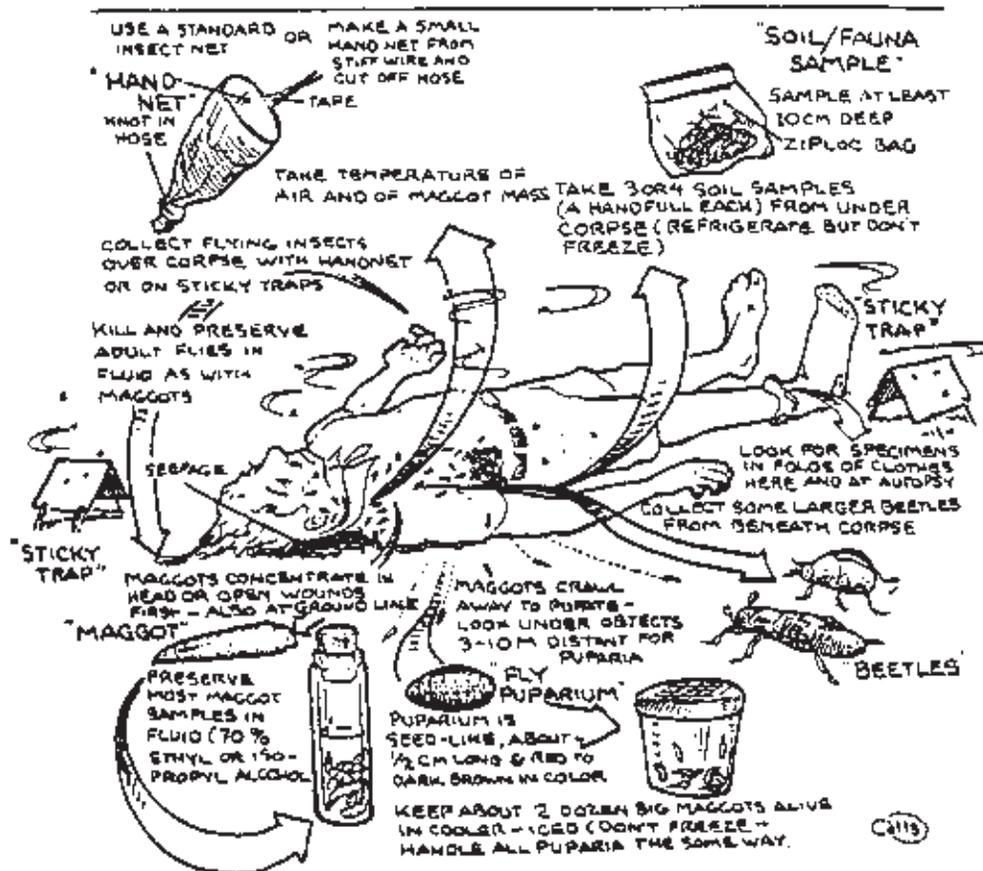
Dr. I. M. Wright
Dept. Entomology
Blissful State Univ.
Collegeville, USA
(923) 338-7436

Equipment:

1. Hand Net
2. Forceps & Digging Tool
3. Thermometer
4. Vials, Jars, Plastic Bags

Supporting Data Needed

1. Previous weather for area
2. On site weather data (3-5 days)
3. Photos/video of crime scene
4. Clock time of collecting
5. M.E. Autopsy Report (when available)



A page from *Entomology & Death: A Procedural Guide*, ed. E. Paul Catts and Neal H. Haskell. Clemson, South Carolina: Joyce's Print Shop, Inc., 1990.

ILLUSTRATION ABOVE (AS WELL AS INSECTS ON PAGES 37, 39, AND 40) BY PAUL CATTIS

who are not necessarily looking at vet or medical school, she says. "Through their needs, I started the forensics club."

Over the past few years she has arranged for field trips with real homicide investigators and hard-core training in "man-tracking," which once took her students on a backwoods manhunt near Priest Lake, Idaho. She also put them through her own forensic entomology experience, using real pigs as victims. "I have this relationship with the [WSU] swine center," Marshall explains. She collects stillborn piglets and larger pigs that had to be put down. She deposits or buries many of the carcasses at Smoot Hill, a research preserve north of Pullman, where they can attract a "carrion community" of insects, mostly maggots, beetles, and flies.

Other pigs get placed at special sites in northeast Washington and Idaho to be used in training professional investigators.

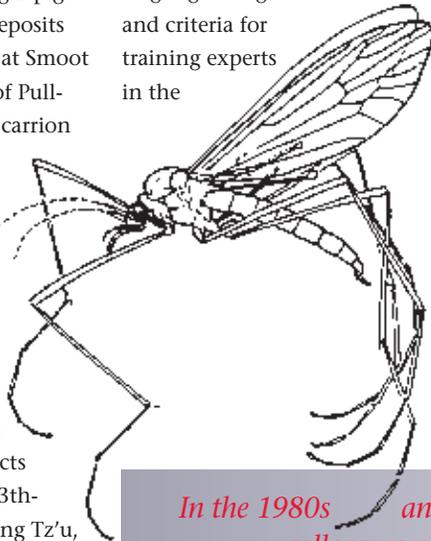
While forensic entomology is a relatively new field in the United States, the first recorded example of someone using insects to solve a crime dates back to 13th-century China. In 1235 A.D. Sung Tz'u, a Chinese death investigator, wrote a book in which he described the story of a victim in a small village who was slashed to death with a sickle. After interviews failed to turn up a suspect, the local investigator asked the townspeople to bring their sickles to a meeting and lay them out. Just one drew flies, probably because there were traces of blood on it. The evidence pointed to the sickle's owner as a prime suspect and prompted a confession.

At WSU, the history of forensic entomology goes back to the late Professor Paul Catts. In the 1980s and early 1990s, he and a few colleagues around the country pioneered the use of bugs in American criminal investigations. "They called themselves the 'Dirty Dozen'," says his wife, Dana Catts.

Part of their mission was to encourage the use of insect evidence and to teach investigators the proper way to handle

the bugs at a crime scene. Often evidence like maggots and flies were ignored or even washed off the body. Catts and his colleagues wanted officers and medical examiners to realize that insects could help pinpoint things like time of death, location of the crime, and location of wounds.

Catts set out to formalize forensic entomology, putting together guidelines and criteria for training experts in the



In the 1980s and early 1990s, WSU's Paul Catts and a few colleagues around the country pioneered the use of bugs in American criminal investigations.

field. Then he wrote the book on the subject. With Neal Haskell at Purdue University, Catts assembled *Entomology and Death: A Procedural Guide*, a small spiral-bound booklet to help scientists and officers use insects in their forensic investigations. Illustrated with Catts's own whimsical drawings, the book details everything from how to get insects from a crime scene—"collect only those stages of insects which can be seen readily on the body"—to how to testify at a trial—"be objective, nonpartisan and scientifically honest."

As a professor, Catts was an internationally recognized expert in parasitology and medical entomology. His expertise included insects that survive on living flesh. He worked to make

the study of insects palatable to his students. He is perhaps most famous in Pullman for the "insect luaus" he threw for his students, where the menu often included honey bee pupae fried in garlic, tempura cockroaches, and cricket tacos. Catts held the buggy smorgasbord to get the students over their big anxieties about insects.

From his fly and live flesh work, it was a natural progression to dead flesh, says Richard Zack, a WSU colleague. "If you're doing research on maggots in a body, you can see where you would get into forensic entomology."

At the time, the use of insects in forensic investigations was viewed as a novelty and seemed the sole domain of insect experts who had day jobs at



universities. "It was a hobby for a lot of these people," says Zack.

Even so, Catts was trusted and respected by both colleagues and law officials. He consulted with investigators on a number of high-profile Northwest cases, including the Green River killer. His untimely death in 1996 left a hole not only in Pullman, but in the forensic entomology community nationwide.

Now Marshall



Marshall's greatest success is that she infused a small group of students with a passion for forensics work and an appreciation for bugs.

has inherited Catts's legacy. Like the well-known professor, she eagerly drops to the ground to dig through soil and pick through bugs. She is constantly seeking opportunities to help local officers use insects in their investigations.

She makes time for extracurricular work, including several cold cases from King County and a recent murder near Anateone. In the latter, she played a role in helping officers identify a suspect.

Marshall has also taught officers around the state the art of recognizing and collecting insects at crime scenes. King County detective sergeant Mark Toner says his basic training provided some insect instruction, but nothing compared to what he's learned from Marshall. "It's hands on digging pigs and picking bugs," he says.

And if there's something he's stuck on during a real investigation, "I'll call her and say, 'This is what I've got, what can you do for me?' She tells me how to pick them up. I send them to her. She will then give me all the information I need."

"There are plenty of scientists who have her knowledge," says Toner, "but they don't have her interest level or energy for this work."

It's gory, smelly, and tedious, and you should never go bug hunting in a stylish outfit like the detectives do on TV, says

Marshall. "But I've been given the stomach and passion to do this."

DIGGING FOR THE TRUTH

It was Marshall's mother who first read about the mystery bear in a newspaper she picked up in a doctor's office waiting room. She called her daughter that very day, and the scientist wasted no time trying to obtain the grisly remains for her students.

"It had all the attributes of a real homicide," Marshall says. The animal is

about the size of a human, it was killed somewhere else, dumped in one spot for a number of days, and then moved to a shallow grave.

Knowing they would find useful insects at both sites and that there was a possibility of turning up new evidence in the bear's death, Marshall pushed University and state game officials to let her and 10 students dig up the site of the first dumping and later exhume the victim.

"When she called me, I said, 'Wow, you're just like CSI,'" says Madonna Luers, spokeswoman for the Washington Department of Fish and Wildlife. Marshall's was such an unusual request, getting permission for her wasn't easy, especially since a crime had occurred, and an official investigation was underway.

Even if the person responsible for the bear's death was a hunter with a license, to remove parts and waste a carcass is illegal, as is dumping it where he did, says Luers.

Because the paws seemed to be missing, game agents suspect the bear was harvested for parts that would fetch several hundred dollars on the black market. The paws, for example, are used to make a soup as an Asian folk-medicine remedy for respiratory problems.

After some deliberation, the game department officials decided that since the

bear remains could be a learning tool and they no longer needed the carcass for their investigation, they could give her access.

Once Marshall knew she had the bear, she completely changed her curriculum to focus on the animal. Where Loaiza saw Jell-O, Marshall saw opportunity.

So did her students, who quickly picked up her enthusiasm for the project.

"This was a real case for us," says Tiffany Schmitz, a senior majoring in psychology who plans to go into forensics work. "We wanted to see if we at all could help figure out how the bear had been killed."

On two separate days this past fall, the students willingly combed over the initial dump site and the burial site and painstakingly sifted through the soil for evidence of insects and other materials. They created grids on the ground with string and markers and set to with trowels, vials, and maps.

On September 18, they went after the bear. The small forensics crew started mid-morning out at the edge of a field, next to a hog-wire fence. While the rest of campus was folding down tailgates and firing up barbecues prior to the 2 p.m. football game against Idaho, Marshall and her crew were digging in with shovels, nets, and baggies.

"We scoured the ground for live insects, took soil samples, and then worked our way to ground zero," says Schmitz, who recalls the day as cold and overcast. "As we started to pull up soil samples, you could immediately smell the decay."

Without taking a break, they worked straight through the morning. Four hours in, they got to their first sign of fur. "At this point, we're not even using trowels, we're using brushes," says Marshall.

While the scene was gruesome and the smell awful, the students kept working. "At this point, the science really overtakes the yuck factor," says Marshall.

Clearing away the cover of soil, several students climbed into the pit to lift out the bear. "It was pretty far along, but

a surprising amount of tissue was left," says Marshall.

As they were putting the bear into body bags, Schmitz noted that all the students were treating the remains with extra care. She understood why. "I thought, this could be somebody. A real person," she says.

The tissue was too far gone, and the relocation by tractor could have caused new breaks and damage, making it more difficult to determine what injuries the bear had at the time it was dumped.

Still, the team found no evidence of a bullet. The bear was taken to WSU's Veterinary Hospital to be X-rayed. It's possible the bear wasn't shot, but that it died by some other means, says Marshall.

With that information and some other leads, the game agent is still hopeful of catching the bear's killer, says Luers. Laws were broken, an animal was killed and dismembered, and the case is still a priority for the fish and wildlife department.

Though they haven't yet solved the mystery of who brought the bear to the campus, Marshall says the team's efforts were a success. "We were able to actually see in the ground what we've been talking about in class," she says. She was able to give her students a real mystery to solve.

The bear lives on as a tool for teaching. Marshall left the hide on a hillside to weather through the winter, and she wrapped the bones in plastic to speed decomposition so future students can study them. And the hundreds of insects they collected now reside in vials in her laboratory.

Her greatest success is that she infused a small group of students with a passion for forensics work and an appreciation for bugs. Marshall's hope is that some day forensic entomology will become as important a tool in solving crimes as fingerprinting.

"Nature has the answers," she says. "We just don't know how to read the book yet." ■



IN SEARCH OF THE WILD CHICKPEA

by Fred Muehlbauer
photos by Walter Kaiser

An expedition to the Republic of Georgia

On a trip that in itself was a rare adventure into the Republic of Georgia, plant collector and former USDA scientist Walter J. Kaiser and I tracked down a rare species of wild chickpea (garbanzo). Our expedition last June to the former Soviet state took us to the heart of the Caucasus mountain region to explore and collect the wild

ABOVE: Walter Kaiser examines the much-hunted chickpea, which he found rooted on a rocky hillside among grasses and Sumac. PHOTOGRAPH BY FRED MUEHLBAUER



ABOVE, LEFT: A view of the small village of Chobisjhevi, Georgia, south of Borjomi. Last summer scientists Fred Muehlbauer and Walter Kaiser hunted for wild pea and lentil plants in the mountains above the community.

ABOVE, CENTER: The sought-after wild perennial chickpea, *Cicer ervoides*, made a rare and valuable addition to the U.S. germplasm collection. Muehlbauer may cross the wild pea with varieties grown in eastern Washington to create new strains that are more weather- and disease-hardy.

ABOVE, RIGHT: Fred Muehlbauer collects seeds from the perennial chickpea on a steep, rocky slope near the village of Ateni, Georgia, south of Gori.

Collecting wild pea seeds in



Pods of *Pisum elatius*.

legume plants that are close relatives of the pea, lentil, and chickpea crops grown in Washington. It was a rare treat to go searching there, since for so many years Georgia has been under Soviet rule and closed to western scientists like Walt and me. Scouring the landscape with the help of Georgian botanist Maia Akhalkatsi of the Georgian Academy of Sciences in the capital city of Tbilisi, we easily found a wild pea species and a wild lentil species and made note of the beautiful wildflowers growing around us. But our most exciting and difficult find was the wild garbanzo, which we nearly missed in the rugged terrain.

We had a general location of the plant, left to us by botanists who explored the area years ago, but not a specific site. So we parked and hiked into the mountains. Our hunt had us scrambling up steep hillsides and sometimes actually scaling the mountainsides. After hours of searching, we considered giving up. We were even in the car driving away, when Walt said, "We should go back." I agreed. We convinced Maia and our driver to turn around.

About an hour into our continued search, Walt called out that he had found it, a huge stand of this wild chickpea. It was on a slope covered with rocks about the size of my fist. It was so steep and rocky, we had to lie on our sides to keep from sliding down. But that was good news, because the plant was apparently thriving in a niche where competing plants could not survive. As I crawled closer, I could tell the wild chickpeas were healthy, in full flower. They had many pods with viable seeds that we readily and happily collected. We celebrated that night with a bottle of good Georgian wine.

Georgia has been a place of social struggle for two centuries since its annexation by the Russian empire in 1801. Although the state declared independence in 1918, during the Russian revolution, the Soviet Union moved in after three years. In fact, Soviet dictator Josef Stalin was born in the Georgian city of Gori. But he didn't do the country any favors, executing





the Republic of Georgia

thousands of Georgian nationalists. A statue of the dreaded dictator still dominates the city center.

Georgia finally became independent after the breakup of the Soviet Union in the early 1990s. Independence didn't ease the country's situation. Today it has a struggling economy and is still troubled with groups that want independence from the central government.

Bordered by Turkey and Armenia over mountains to the south, the Black Sea to the west, Russia over mountains to the north, and Azerbaijan to the east, Georgia is a place of mountains and valleys where many of our modern cereal and legume crops were domesticated as long as 10,000 years ago. This region is rife with the wild ancestors of barley, wheat, peas, lentils, and chickpeas, all of great interest to plant scientists for their potential for providing genetic material that could improve their cultivated cousins. In many cases these ancestors have genetic traits, like physical structure and disease resistance, that are lacking in our conventional crops. Crossing the wild species with our domestic plants could transfer those characteristics to our field crops and possibly increase yield or cut down on chemical inputs.

However, seed material from the Caucasus region has been missing from the U.S. Plant Germplasm Collection and has been unavailable for crop improvement research projects like ours. Walt and I had long wanted to visit Georgia to rectify that, but until recently, the country's political problems had made it nearly impossible to travel there to collect plants for use in our research.

The prospect of getting samples of the wild species in the Caucasus became a reality with the breakup of the former Soviet Union and the willingness of scientists in Georgia to assist in our collection efforts. Our visit to Georgia was planned in close collaboration with Maia Akhalkatsi. Our route through the country was somewhat restricted by poor road conditions and recurring troubles in certain provinces.

Still, we covered about 6,000 km during our exploration.

Dr. Akhalkatsi knew the country well and where the specific target species, *Pisum*, *Lens*, and *Cicer*, might be found. The Botanical Gardens of the Institute of Botany also had many species of plants from Georgia and a small collection of cultivated accessions of pea, lentil, and chickpea, of which we were able to obtain samples.

Besides the wild chickpea, we found several types of wild peas, two of which we discovered near the ruins of old churches. I think they may have been used in gardens tended by monks in earlier times. We also found and collected wild faba beans, numerous vetches, and other forage legumes. The military road, built during the Soviet time to connect Russia with Georgia, took us to the highlands near the Russian border, but its poor condition made it clear that the Georgians were not interested in keeping it passable. Nevertheless, the trip was worth the effort. In that highland area, we found an impressive array of wild flowering plants, including orchids, rhododendrons, and lilies.

The area is pristine and beautiful, with mountain meadows full of wild flowers and unusual species of plants. The lands of Georgia are a destination for botanists and naturalists from throughout the world.

However, in keeping with the times and to help quench the world's appetite for oil and gas, a long pipeline is being built to transport the valued commodity from Azerbaijan to the Mediterranean Sea, where it will be pumped into tankers for worldwide distribution. While the pipeline may bring money into this struggling region, it may also threaten fragile ecosystems and endanger the wild and rare plant populations like our chickpea. We hope that in the coming years of development there, the wildland races of grains and legumes can be protected. ■

Fred Muehlbauer is a USDA/ARS research geneticist housed in the Department of Crop and Soil Sciences at Washington State University.

Molly McNeil '05

Fourth-generation Cougar.

Aspiring elementary school teacher.

Loves the Nordstrom Anniversary sale.

A small-town kid with big-time dreams.

Member of the WSU Alumni Association.

"I joined the Alumni Association because I felt it was the right thing to do. My parents are Life Members, and I come from a long line of Cougs. I even joined before I graduated!"



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an interview with **King County Sheriff Sue Rahr**

Sue Rahr graduated from Washington State University in 1979 with a degree in criminal justice. In January 2005 she was promoted from King County chief of field operations to sheriff. She is the first woman to be sheriff of King County. The following is excerpted from an interview with *Washington State Magazine's* Hannelore Sudermann, February 22, 2005, at the King County Courthouse.

Take your opportunities.

I was engaged to be married right after I graduated from college. My husband and I set a wedding date, sent out invitations. Everything was ready to go, and I got a call early in July from the Sheriff's office saying, "You have a job; we're going to hire you." I said, "Great, when?" She said, "July 23." I said, "I'm getting married July 28th." She said, "Either now or next year." I called my fiancé and said, "Guess what? The honeymoon's cancelled. The good news is I got

a job. So we're not going to starve, and we're going to be able to buy a car."

Find your own path.

I thought that there were more women in law enforcement at the time. I didn't realize I was really at the front end. When I started working, my first assignment was at the southeast precinct. The women's locker room was a janitor's storage room that had been converted. To get to the women's locker room, we had to walk through the men's locker room. Luckily I came from a big family with a lot of boys, so seeing men in their underwear wasn't that shocking.

Show your mettle.

I was 22 years old. I had a very sheltered life. I think my new coworkers looked at me like, "What's she doing here?" But once I started working side by side with them, they became very accepting. I got in my first fight just three or four months on the job. Once that happened, I think everybody, myself included, breathed a sigh of relief.

Know yourself.

It was one of those "aha" moments, I guess. I worked alone in a patrol car. I had to learn right away that when I was doing my job I had to survive by my verbal skills or my physical skills. I got a call about a drunk man at a mini-mart disturbing customers. He wasn't a huge guy, but he was pretty stocky, like 5-11, maybe 180 pounds, pretty muscular. He was drunk, drunk and obnoxious, and bothering people. Well, I walked up to him, and I was feeling pretty full of myself, and I was going to use my excellent verbal skills to convince him that he would be better off to just let me give him a ride to detox than to arrest him. I was trying to reason with him. As I was trying to talk with him, he balled up his fist and just slugged me as hard as he could on the side of my head. And it didn't hurt. This was the "aha" moment for me.

Use your anger.

As soon as he hit me, I was instantly angry. All I could think of was "You s.o.b., I'm trying to be nice to you, and you hit

me.” As soon as the anger hit, the adrenaline rush was right there with it. With the adrenaline rush came a real surge of strength and resolve to take care of business with this guy. It was very clear right away that this was not going to be a nice ride to detox. So I sprung into action. I lunged forward, grabbed him by the hair, pulled him down and kicked him right in the groin as hard as I could. The next “aha” moment was, he just crumpled and fell to the ground. And that felt great. That was a real turning point both for me and my coworkers. Once they could see you were there to work and you weren’t afraid, that’s all they wanted.

Know when to step away.

I worked undercover in the narcotics unit, and a couple of times during my career I worked vice, John patrol. To be honest, I didn’t enjoy undercover work, but it was very educational. At that time there weren’t very many female officers, so it was useful being a woman on surveillances. If [criminals] see two guys sitting in a car, they figure they’re cops. But if it’s a male and a female, especially at that time in the early ‘80s, they didn’t make that assumption. [Rahr also did undercover John patrol in the early days of the Green River killings.] That was the one and only part of my job that my husband has ever objected to. I think everybody has their personal limits on things. My husband [William Rahr] said, “I just can’t stand the thought of men looking

at you and thinking you’re a hooker.” I said, “That’s fair enough.” It just wasn’t worth creating heartache at home. It was easy to give that up.

Balance career and family.

It’s a very hard career to mesh with a family. I am lucky to have had the opportunity to speak to groups of young women and tell them, “Don’t think you can have it all, and by God, if you want to be anything, you have to have a career as well as a family. And as soon as my first son was born, I remember thinking, “Oh forget it, I changed my mind. I don’t want a career. I want to stay home with my baby.” It took me several years to come to terms with the career decision I had made. What I discovered was I had to make concessions on both sides. I had to go into career assignments that were less demanding when my kids were younger. When I am not at work, I am 100-percent focused on my family. I think that’s how I came to some peace with my career. My kids’ view of me is, when I’m home, I’m 100-percent Mom.

Hang on to your faith.

There have been points in my career where I have completely lost faith in humanity. When I was working sex crimes, I became an

animal lover. I thought, “Animals don’t do these things. Animals are so superior. Humans are so disgusting.” Having kids really helps. At home our family is really very traditional and very old fashioned. When my boys were little, I was the PTA president. I could see all these wonderful good things going on in the community. That really helped to offset the bad things that I had seen working as a cop. I remember baseball season starting one year. There was the flag salute and kids in uniforms. I just had tears running out of my eyes, thinking, “This is so good.” If I didn’t have that, I think I would be a lot more cynical than I am.

Be ready.

[Knowing I was on the short list to be sheriff] was actually kind of an awkward time. I had my job to do running field operations, and Dave Reichert was still the sheriff, and people were making some assumptions. It was a little awkward there until the transition actually took place. I think that during the course of my 25 years opportunities have come available to me. I’ve got two kids that are grown, and I keep telling them, “Make your own opportunities.” I think there is a lot of truth to that. There’s also a little bit of luck in there, too. If you prepare yourself well, you can take advantage of an opportunity when it comes along. I certainly haven’t sat back and waited for things to be dropped in my lap. ■

CLASS NOTES

1930s

Winnifred L. Olsen (‘38 Soc.) has retired from teaching and is vice president of the Thurston County Historic Commission. She is a board member of the Olympia Library Friends and the American Association of University Women, and a member of Olympia Historical Society, YWCA, Delta Kappa Gamma, and the Lewis and Clark Foundation.

1950s

Leo D. “Don” Caron (‘50 For.) served three years in the U.S. Army and 14 years in the U.S. Forest Service in several capacities, including district ranger. He served 10 years as the John Birch Society state coordinator in Washington, and later in Idaho, Montana, and Wyoming. He retired in 1986 and lives near Bigfork, Montana.

Bernice (Bunny) Levine (‘51 Psych.), Cliffside Park, New Jersey, has pursued her lifelong passion for acting in New York and Los Angeles since retiring as a librarian. Her recent appearances include spots on *Everybody Loves Raymond* and *The Gilmore Girls*.

T. Peter Rademacher (‘53 An. Sci.) works for the American Cancer Society in Medina, Ohio, and consults with volunteers throughout the state, organizing fund-raising golf tournaments.

Robert Fearn (‘55 Fine Arts) wrote the lead article, “A Note on Rapid Economic Development,” for the fall issue of *Southeastern Europe Journal of Economics*. He was recently in Jordan consulting on economic issues. He is a retired professor and lives in Raleigh, North Carolina.

Gary Osborn (‘58 Math.) retired from IBM and lives in Incline Village, Nevada.

1960s

Joseph (‘61 Ind. Tech.) and **Carol Ackermann** (‘62 Ed.) recently retired. They spend their summers in Yakima and their winters in Arizona.

Lyle Erwin Russell (‘63 Math.), Tacoma, retired May 2004 from City of Tacoma Finance Department, where he was an application systems analyst and computer programmer. He is active in many nonprofit organizations and is secretary for National Alliance for the Mentally Ill of Pierce County.

After a 27-year career with the federal government, **Samuel I. Eskenazi** (‘64 Gen. Stud., Comm.), Washington, D.C., retired August 2003 as director of public affairs, Office of Thrift Supervision, an agency of the Treasury Department.

Gordon Morgan (‘64 Ph.D. Soc.) has been appointed University Professor at

“It’s a very hard career to mesh with a family,” says Sheriff Rahr. “I am lucky to have had the opportunity to speak to groups of young women and tell them, ‘Don’t think you can have it all.’”



MATT HAGEN

THIS MAN MIGHT SAVE YOUR LIFE— OR TEACH YOUR CLASS

CLINT COLE ('87 B.S. Comp. Sci., '00 M.S. Elec. Engr.) vividly remembers the drama of trying to save lives as a paramedic in the 1980s.

He and his fellow paramedics typically responded to emergency calls by driving as fast as possible to their destination. If they arrived in fewer than seven minutes, they were doing well. Usually, though, they weren't fast enough.

Only about 10 of the 250 people he tried to save survived.

But as one of the developers of the world's most popular portable defibrillator, Cole has since contributed to saving tens of thousands of lives.

More than six feet tall and a little uncomfortable at his desk, Cole looks more like a firefighter than the inventor, CEO, and college instructor he is now.

A native of Issaquah, he first came to Washington State University in 1979 to study computer science. He also became a campus fireman. Soon, he

realized that academics weren't his priority. So for the next five years, he traveled the country working as a paramedic. He returned to WSU in 1985 and received his undergraduate degree in 1987.

Cole was working toward a master's degree in electrical engineering, when he heard his advisor talking with a Hewlett-Packard representative one day about a project to develop a new defibrillator. So he went to work for Hewlett-Packard, designing chips and circuit boards for the new machine. From there, he went to Seattle-based Physio-Control, joining a small team of research engineers who were looking for cheaper and easier ways to restart a stalled heart. But the company was under investigation by the federal government, and

Cole and his fellow researchers were asked to focus their work on re-engineering manufacturing processes.

Meanwhile, Cole and the team found a way to make a portable defibrillator. Over several months, they told their bosses about it, insisting that they needed to start the work immediately. Finally, one member of the team threatened to quit and take the research group with him.

In a matter of

days, the entire group of five found themselves unemployed, and in 1992 they started a company called Heartstream.

Heartstream's innovation entailed the use of a bi-phasic wave form to deliver a jolt of electricity to patients, halving the energy requirements of earlier defibrillators. Because it required less energy, the machine could be lighter and smaller by a factor of five, and therefore portable. It hit the market in 1996, and soon after, the group sold Heartstream to Hewlett-Packard.

The number of machines sold has now exceeded 100,000—and they're everywhere. No longer is it necessary to wait the crucial seven minutes for paramedics to arrive. Anyone can grab a defibrillator and get to a patient almost instantly. According to a Seattle study, portable defibrillators save 2,000 to 4,000 lives in the U.S. annually.

Now married, Cole joined the WSU faculty in 1997.

Having left a cutting-edge engineering position, he realized that the curricula at WSU were not taking advantage of the latest digital design tools and methods.

In his entry-level digital design classes, for example, the circuit boards his students were using enabled them to design and build only the simplest circuits. And his advanced students were limited to designing circuits on paper without the opportunity to actually try them out.

So Cole designed a circuit board that students could use for a variety of projects, from simple circuits to complex microprocessors. Next, he designed an advanced version and built 400, 300 of which he sent to colleagues at other universities. They were well received, and demand started growing.

Soon he was getting calls from universities nationwide.

In 2000 Cole and a former student, Gene Apperson, founded Diligent, Inc. to manufacture and market the boards to schools and colleges nationwide. Since then, the pair has designed more than 50 products, which are in use by more than 400 universities worldwide. The company now has seven full-time employees, excluding Apperson and Cole, who don't receive a salary—and a new director, enabling Cole to focus on his teaching.

So what's Cole's next project? More time for "Version 3.0," he says. That's his affectionate name for his new son, Thomas, who was born to him and his wife, Fiona, in August 2004, joining brothers Jamie (4) and William (2).

—Tina Hilding

Because it required less energy, the defibrillator developed by Clint Cole and his research group could be lighter and smaller by a factor of five, making it portable—and ubiquitous.



ROBERT HUBER

Portland pharmacist uses chemistry to duplicate natural human hormones

FORGET ABOUT over-the-counter pills and creams to reduce hot flashes, insomnia, and other symptoms of perimenopause. Don't bother with prescriptions for mass-produced synthetic hormones, either.

Instead, why not use chemistry—or bio-identical hormone replacement—to duplicate natural human hormones, and then concoct the right dosage for each individual woman? Pharmacists call this individualized procedure “compounding.”

Alison Johnston ('84 Pharm.) started doing just that in January 2003 in Portland, Oregon. She reports it seems to be working.

Johnston is the only pharmacist in a compounding-only pharmacy, Marquis Compounding Pharmacy in Portland. She has her own patients and writes prescription recommendations for their doctors to sign. A few of her patients believe so strongly in bio-identical hormone replacement therapy that they have left physicians who resisted the idea and have found others who agreed to go along with it.

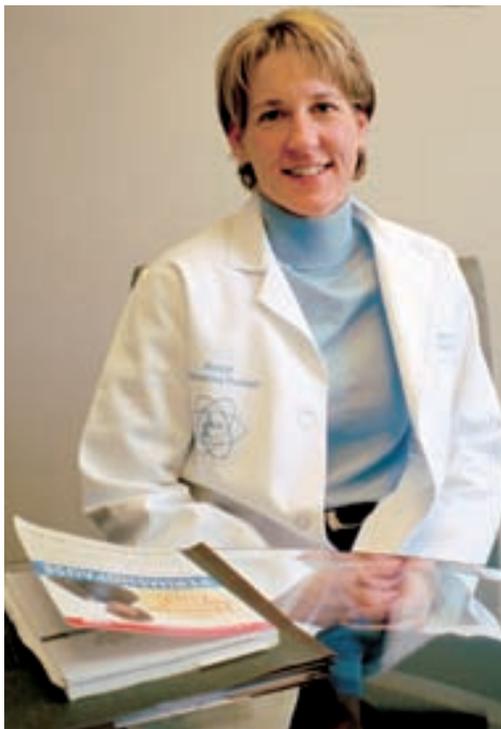
Unlike synthetic hormones, the chemical structure of the hormones Johnston dispenses is identical to that of the hormones made in the human body, she says.

These bio-identical hormones are derived from soybeans or yams, and then put through a chemical process to become pharmaceutical-grade hormones, she says.

In addition to treating women for perimenopause symptoms, Johnston treats men for declining testosterone. First she tries to use supplements and minerals to boost the patient's own production of testosterone or block its conversion into estrogen, rather than immediately treating the decline with testosterone, which could further shut down the patient's own production of the hormone.

She also spends about 10 percent of her time on pain management compounding, most of which involves making topical creams and gels.

Johnston buys all her hormones from the Professional Compounding Centers of America (PCCA) in Houston to be sure of their quality and consistency. They arrive at her pharmacy in powder form. From there, she and her pharmacy technicians make individualized doses in various forms, such as capsules, creams, gels, or drops.



Alison Johnston '84 is the only pharmacist in a compounding-only pharmacy.

She relies on a saliva test instead of a blood test to determine hormone levels in the body. Saliva testing does not require a physician's order and is easy to do at home. It takes a lot of skill to accurately determine hormone levels in blood, Johnston says.

“You are looking at the total hormone levels, which include both free hormones and hormones that are tightly bound to other proteins,” she says. “With saliva, you are primarily looking at the levels of free hormone, which is the hormone that has the effect.”

The saliva test measures estrogen, progesterone, testosterone, DHEA, and cortisol hormones. The results are compared with the normal ranges and the patients' symptoms. Because nutrition and exercise play a “huge” role in the effect of the hormones, Johnston talks with the patient about those factors before she writes out her recommendations and mails them to the patient's physician to sign.

“Nine times out of 10 the physicians sign the recommendations and mail them back,” she says.

A few physicians in the Portland area are working with her now, writing prescriptions for hormones. Johnston is hoping more will start, because she can't take on many more patients—she has about 70.

But she can fill a lot more prescriptions.

—Lorraine Nelson

CLASS NOTES *continued*

University of Arkansas. Only about 15 of 1,000 faculty members have been so honored at UA.

Darleen Stoner ('67 Educ.) is a professor of environmental education at Cal State, San Bernardino. She founded and led the environmental EXPO, an environmental education festival held annually during the week of Earth Day at the university since 1986. She was recently honored at the Governor's Environmental and Economic Leadership Awards at the California Environmental Protection Agency headquarters.

1970s

Chuck Logsdon ('71 Econ.) retired as Alaska's chief petroleum economist in the Department of Revenue. He worked in this field for 25 years and doesn't have any new career plans yet.

Cherilyn L. Brennan ('72 Comm.) received the Hugh Smith Community Service Award from the Puget Sound Chapter of the Public Relations Society of America. She is the founder and owner of Alliance Communications in Bellevue.

Phyllis Campbell ('73 Fin.) is head of The Seattle Foundation, a mentor for the Executive Development Institute, and a member of Seattle University's board. She was a WSU Board of Regents member for 17 years.

Nadean Meyer ('74 Gen. St.) was named the Library Media Specialist of the Year at the Washington Library Media Association conference. She has worked as a librarian for 30 years and as a school librarian for over 20 years.

Thomas Harbour ('75 For. Mgt.) is director of the Office of State & Private Forestry, Fire & Aviation Management, USDA Forest Service. He has worked with the Forest Service for more than 30 years and currently resides in Virginia.

Tom Norwalk ('75 Comm.) is president and chief operating officer of Seattle Hospitality Group.

Robert Carmack ('76 Comm.) has been writing cookbooks for the last 20 years and regularly tours foreign countries, discovering and introducing others to new foods. He also styles food for large chain companies such as Domino's Pizza, Kentucky Fried Chicken, and McDonalds.

Laura Chandler ('77 Fine Arts) created the Bellingham Labyrinth, an annual landscape creation similar to a maze.

Cheryl Funke ('77 Nursing) received the Washington State School Nurse of the Year Award from the School Nurse Organization of Washington. She was honored for her dedication as nurse

specialist for the Central Valley School District, where she has worked since 1995.

Jonathan W. Martin ('79 Ph.D. Mat. Sci. & Engr.) received the William P. Slichter Award from the National Institute of Standards and Technology (NIST) for his outstanding achievement in building and strengthening ties between NIST and industry. He established consortia that address critical research needs in the coatings and sealants industry. He was also co-recipient of the 2004 First Place Roon Foundation Award and the 2004 John A. Gordon Best Paper Award.

1980s

Albert Heacox ('80 Ph.D. Zool.) is senior vice president of research and development at CryoLife, Inc., Atlanta, Georgia.

Scott A. McKinlay ('80 Econ.), Enumclaw, is a sales representative at Smurfit-Stoe Container Corp.

Mark Zappone ('80 Gen. St., '81 Sp. & Hear. Sci.) is back in Seattle after living in Europe for years. He designs costumes for Pacific Northwest Ballet and many other companies, including San Francisco Ballet, Pennsylvania Ballet, Oregon Ballet Theater, and Miami City Ballet.

Allan Stephen Kennedy ('81 Crim. Just.) is vice president of Maloney Security Inc., San Mateo, California.

Sarah Metcalf ('81 Vet. Sci., '82 D.V.M.) is an equine dentist who travels the Pacific Northwest to perform dental surgery and checkups on horses. She lives in the Palouse area.

Jerry Surdyk ('81 Const. Mgt.) was hired by Express Construction as senior project manager in Seattle.

Chris Forhan ('82 Comm.) won a 2004 Washington State Book Award for his book of poems, *The Actual Moon, the Actual Stars*. He is an assistant professor of English at Auburn University in Alabama and teaches in the Warren Wilson College M.F.A. Program for Writers.

Bettina Stanley ('82 For. Lang. and Lit.) has been teaching French at Wilson High School for the better part of 10 years. She has a unique way of bringing France into the classroom. She set up a café and an open-air market where students can practice their French in a different setting.

William Tormey ('83 Gen. Bus.), Bothell, has worked in the insurance business for more than 20 years. He currently works for Hub International Limited.

Christopher Dillon ('84 M.S. Engr.), Anchorage, Alaska, is vice president in the construction division at Alutiiq LLC and recently married Anne Kranawetter.

Tim Gorden ('84 Soc. Sci.) is stationed in the 81st Brigade Combat Team Headquarters in Iraq as the fire support operations officer for the brigade. He has been there with fellow Cougar **Damon Hunt** ('89 Hum.) since April 2004.

Robert Millman ('84 M.S. Gen. & Cell Biol.) was appointed chief patent counsel at Alnylam Pharmaceuticals, Inc. He has been with Alnylam since 2003 as a consultant.

Robert Bianchini ('85 Ph.D. Chem.) is senior director of research and development, Consumer Products Division, Johnson & Johnson Corporation. He lives with his wife in Hillsborough, New Jersey.

Judy Dann ('85 Civ. Engr.), DuPont, recently received a home "extreme makeover," thanks to neighbors who helped remodel her apartment. She was struck by a car shortly after graduating from WSU, has vision and speech problems, and must use a wheelchair. Local residents wanted to make her home more convenient and comfortable for her to live in.

Timothy R. Fox ('85 Elec. Engr.) received the Navy 2004 Safety Excellence Award on behalf of Fleet Logistics Support Squadron 53 of Andrews Air Force Base, Maryland.

Douglas J. McIlraith ('85 Hist.) is a pilot with United Airlines, flying the 737 as first officer.

Todd Sewell ('85 Fin.) is senior business banking relationship manager for Wells Fargo in Bellingham. He serves on the Whatcom County Agriculture Preservation Committee as treasurer and on the Whatcom County Economic Development Investments Board of Directors.

Jim Daubersmith ('87 Civ. Engr.) recently joined Advanced American Construction as a partner in Oregon City, Oregon.

David Hewitt ('89 Wildlife Biol.) won the Distinguished Research Award given by the Javelina Alumni Association at Texas A&M University-Kingsville, where he teaches wildlife ecology, management, and nutrition classes.

Curt Hilliard ('89 Comm.) was named vice president of commercial sales for ADT Security Systems for North America. He lives with his family in Florida.

Damon Hunt ('89 Hum.) is stationed in Iraq at the 81st Brigade Combat Team Headquarters as the brigade personnel administration officer. He has been there with fellow Cougar **Tim Gorden** ('84 Soc. Sci.) since April 2004.

James Job ('89 Mech. Engr.) recently appeared on *Wheel of Fortune* and

Alumni Achievement Awards

Last winter the Alumni Association honored sports greats **James Donaldson** ('79 Soc.) and **Craig Ehlo** (x'86 Soc. Sci.) with Alumni Achievement Awards for their contributions to Washington State University and professional basketball, as well as service to their respective communities.

Donaldson, who was drafted by the Seattle Supersonics after graduating in 1979, enjoyed a 14-year National Basketball Association career and was a 1988 NBA All-Star. He now lives in Seattle and is owner of Donaldson Physical Therapy & Fitness and the Donaldson Clinic, which he first opened in 1990 with the idea that he would go into physical therapy work at the end of his basketball career. (See *Washington State Magazine*, winter 2003-04.)

Ehlo, a native of Lubbock, Texas, played at WSU until he was drafted by the Houston Rockets in 1983. (See *WSM*, summer 2002.) Over the next 14 years he played in succession for the Cleveland Cavaliers, the Atlanta Hawks, and the Seattle Supersonics. He now works as a color commentator for Fox Sports Net, covering the Sonics and the NBA for the *Northwest Sports Report*.

Both basketball greats are active in their communities, play with the Gray W National Varsity Club, and are life members of the Alumni Association.

Also named for an Alumni Achievement Award last winter was **Donald M. Newbold** ('50 Bus. Admin.), Spokane. A former marine who fought at Iwo Jima, Newbold returned to Washington State College at the close of World War II to earn his degree, then went into the insurance business. He owned Olympia Insurance Brokers near Lacey. His community work includes memberships in the Lions Club, the Masons, and the American Legion. As an alumnus, he has served on many committees, helping determine scholarships and organize local alumni functions.

CLASS NOTES *continued*

won \$25,000. He lives in Puyallup and works as a civil engineer.

1990s

Marine Corps Reserve major **Terrance R. Thomas III** ('91 Intl. Bus.) has been assigned to the U.S. Marine Corps Motion Picture & TV Liaison Office, Los Angeles, California, following his service in Iraq. He is responsible for coordinating military technical support to the entertainment industry, supporting such hit television shows as *JAG*, *NCIS*, *Mail-Call*, and *24*.

Chad McCormick ('94 Biol.) is a doctor who has joined the practice of Drs. Robert Farr and Ronald Stout at Ear, Nose & Throat in Coeur d'Alene, Idaho.

Jeff Thompson ('94 Soc. St.) is the head women's basketball coach at Pacific University, Forest Grove, Oregon.

Jay Wurz ('94 Fin.) is assurance senior associate in the Spokane office of BDO Seidman.

Bill Druffel ('95 An. Sci.) has joined the law firm of Libey, Ensley, Esser, & Nelson in Pullman as an attorney. He was previously with the King County Prosecuting Attorney's Office in Seattle. His wife, **Katie Evermann Druffel** ('96 Soc.) is a medical social worker and head of social services at Whitman Hospital and Medical Center, Colfax. The Druffels live in Colton with their son, Henry, born November 2003.

Andrea Howell ('95 Ag. Econ.) relocated to Washington, D.C., where she will work with Congressional members and their staffs, agencies, and associations as federal affairs manager for Weyerhaeuser Company.

Sara Young ('95 Soil Sci.) was hired by David Evans and Associates as an environmental planner in Bellingham.

Eric Andersen ('96 D.V.M.) bought Ballston Spa Veterinary Clinic in New York State with his wife and business partner, Dr. Danica M. Salamun.

Ari Bernstein ('97 Soc.) directed, shot, and edited *Just Hustle*, an independent film that played at Garland Theater, Los Angeles, California, in December.

Shelley Goss ('98 Bus. Admin., Pol. Sci.) is executive director for the East Grand Forks Red Cross chapter, North Dakota.

Michael Rule ('98 M.A. Rec. Admin. & Leisure Stud.) is CEO of Phantom Lake YMCA, Mukwonago, Wisconsin, where he lives with his family.

Franklin Taylor ('98 Mech. Engr., '01 M.S. Mech. Engr.) is a mechanical design engineer for Itronix in Spokane.

Derek Gentry ('99 Gen. St., Phys. Sci.) recently married Kelly Ross and attends the University of Washington.

Amy Moe ('99 Acct.) is assurance manager at the Spokane office of BDO Seidman.

Lorna Wouters ('99 Hum. Nut.) is a clinical dietician at St. Joseph Hospital in Bellingham. She recently married Craig Hougen.

2000s

Laura Eve Ellsworth ('00 Hum. Dev.) works to promote organ tissue donation awareness as a program coordinator for the Oregon Donor Program. She lives in Vancouver with her husband.

Ryan Goodell ('00 Bus. Admin.) is an associate attorney for Huppin Ewing Anderson & Paul, Spokane.

Cody Janson ('00 Civil Engr.) and **Amy Budge** ('01 Comm.) were married April 24, 2004. They met as next-door neighbors while at WSU and currently reside in Auburn.

Holly M. Nakamoto ('00 Comm.) and **Timothy S. Yep** ('02 Arch.) were married October 17, 2004. They met through the Asian American Pacific Islander Student Center and the AAPI student organizations. They reside in California.

John Roberts ('00 Acct.) was hired at North Cascades National Bank as manager of the bank's Omak office.

Jennifer Smith ('00 Food Sci.) won first place in Danisco's 2004 Knowledge Award new products contest for creating a fruit-flavored drink called Yosha.

Julie Caires ('01 Chem.) is regulatory affairs specialist at Hollister Stier in Spokane.

Jonathan Harris ('02 Fine Arts) is creative coordinator for Creature in Seattle.

Jane Pacifico ('02 Comm.) recently graduated from the Austin Police Academy.

Amy Christine Ekroth ('03 Hotel Admin.) is assistant general manager at the Embassy Suites in La Quinta, California.

Chris Harrison ('03 Bus. Admin.) is a staff accountant at Magnuson, McHugh & Co., Coeur d'Alene, Idaho.

Kim Cramer ('04 App., Merch., & Text.) is a manager trainee at JC Penney in Vancouver.

Daniel P. Michael ('04 Comp. Sci.), Marine Corps Reserves, recently deployed in support of Operation Iraqi Freedom. He is in Company B, 4th Tank Battalion, Yakima.

IN MEMORIAM**1920s**

Mabel Gladys Stone Webber ('21 Music), 106, December 11, 2004, Spokane.

1930s

Velma Minnick Cnaan ('30 Home Ec.), 98, December 25, 2004, Seattle.

Luther E. Cliffe ('30 Civ. Engr.), 95, August 22, 2004.

A. Sydney Skoglund ('31 Elec. Engr.), 95, January 15, 2005, Walla Walla.

Clifford Eric Frost ('33 Chem.), 98, October 23, 2004, Vancouver.

Leonard W. Maxey ('33 Bact.), 95, April 4, 2004, Spokane.

May I. Nelson ('34 Phys. Ed.), 93, October 18, 2004, Shoreline.

Harry Daniel Gleason ('35 Dairy Prod.), 92, December 26, 2004, Olympia.

Hunter A. Mock ('36 Phys. Ed.), 91, January 25, 2005, Kirkland.

Glen Alliger ('37 Chem.), 90, October 26, 2004, Westfield, North Carolina.

Thomas Cameron Neill ('38 Mech. Engr.), 88, November 22, 2004, Pullman.

Edna Jane Thomas ('38 Music), 88, May 15, 2004.

Elaine E. Colwell Ziegler ('38 Sec. Stud.), 87, January 7, 2005, Seattle.

Kent Anderson ('39 Ag. Econ.), 87, February 17, 2004, Ridgefield.

Ethwyn F. Bodhaine ('39 Home Ec.), 86, October 1, 2004, Oro Valley, Arizona.

Esther Melissa Pickett Dillon ('39 Engl.), 87, December 10, 2004, Bellingham.

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Also, be sure to read "News from You" on page 4 of this issue.

Jack McPherson ('39 Bus. Admin.), 88, Wilbur.

1940s

Rune Ferdinand Goranson ('40 Ag.), 87, January 17, 2005, Edmonds.

Stanley Warwick ('40 Speech Comm.), 85, November 2, 2004.

Loreine Koslowsky ('41 Home Ec.), 85, October 16, 2004, Spokane.

Robert J. Fisher ('42 Wildlife Sci.), 85, December 20, 2004, Everson.

George Hardgrove ('42 Mech. Engr.), 84, November 19, 2004, Cincinnati, Ohio.

Robert Howard (x'42), 86, November 19, 2004, Colfax.

Robert Burch ('43 D.V.M.), 85, December 11, 2004, Hansville.

Mary Teel Johnson ('43 Music), March 8, 2004.

Margaret McConnell ('43 Engl., '47 Ed.), 82, December 17, 2004, Vancouver.

William E. Brennan ('45 D.V.M.), 82, December 19, 2004, Ballard.

Elizabeth Pilkey ('46 Gen. St. & Journ.), 80, October 2004, Vancouver.

Barbara E. Rice ('46 Police Sci.), 81, January 15, 2005, Juneau, Alaska.

John E. George, Jr. ('47 Ag.), 85, November 21, 2004, Bothell.

Kenneth Bernard Hanlon ('48, '51 Ag.), 81, September 29, 2004, St. George, Utah.

Frank Lee Howard ('48 Ph.D. Chem.), 88, December 21, 2004, Spokane Valley.

Lawrence Doyle ('49 Mech. Engr.), 83, October 9, 2004, Spokane.

Darrel W. Holt ('49 Sp. Comm.), 79, December 20, 2004.

John Robert "Rogers" Patterson ('49 Wildlife Mgt.), 77, August 6, 2004.

1950s

Marcia (Gusman) Bigelow ('50 Sp., Theater Arts), 76, November 16, 2004, Spokane.

William S. Murphy ('50 D.V.M.), 81, November 17, 2004, San Diego, California.

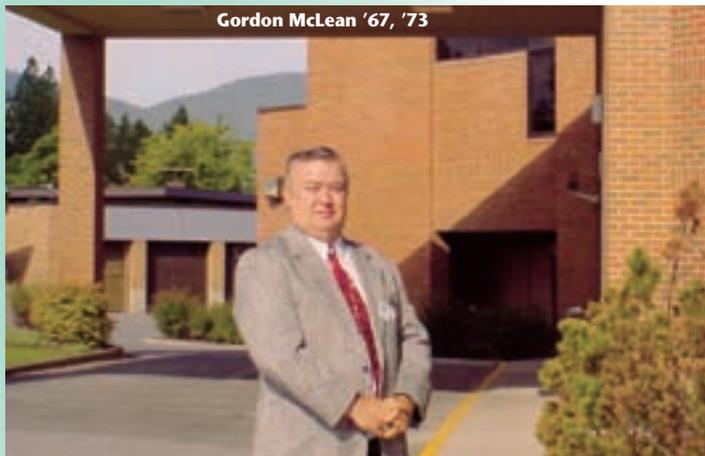
Francis P. O'Brien ('50 Ed., '67 M.Ed.), 81, October 16, 2004, Tigard, Oregon.

Will L. Rikken ('50, '51 Ed.), 77, Spokane.

Clayton Carr ('51, Bus. Admin.), 77, November 6, 2004, Bellingham.

Cliff Gillies ('51 Phys. Ed.), South Bend, Oregon.

Wayne E. Hannah ('51 Phys.), 77, January 1, 2005, Shelton.



The Hospital Doctor

"Healthcare is so complicated. People have a difficult time understanding the constant changes . . ."

—Gordon McLean

WHEN THE ELDERLY COUPLE moved into the nursing home in Tonasket, one of their main concerns was who would take care of their chickens. Gordon C. McLean ('67 Ag. Ec., '73 M.A. Speech), administrator of the North Valley Hospital and Nursing Home, volunteered.

Listening to people and finding solutions has been his forte during a 30-year career in hospital administration. Over the past two decades, he's breathed new life into healthcare facilities in rural eastern Washington.

McLean's hospital ties date to 1975, when he was director of public relations at St. Mary's Medical Center, Evansville, Indiana. Since 2001, he's the one who answers the phone in the president's office at Mount Carmel Hospital in Colville.

"Healthcare is so complicated. People have a difficult time understanding the constant changes in policies, procedures, and pricing," he says. Traditionally, hospitals were low volume, high margin businesses, he explains. "We could charge a lot, and so we didn't have to do many procedures. All that has changed. We are definitely low margin and dependent on holding our local market share; volume is essential to sustaining services such as obstetrics."

McLean was the fourth administrator hired in as many years at North Valley Hospital in Tonasket in 1984. Intent on reducing the debt and increasing cash flow, he initiated a credit check for entering patients. They resented the policy. The hospital board stood behind him.

Many thought the hospital would fail. It didn't. Under his three-year watch it was "reengineered," acquired a new 70-bed nursing home, and broke into black ink.

At Whitman Hospital and Medical Center in Colfax, McLean found "a fragile situation" in 1987. Losses the previous year totaled \$233,000. The Palouse area's 70,000 residents didn't seem enough to support 152 hospital beds in Colfax, Pullman, and Moscow, Idaho. Whitman appeared to be in the greatest jeopardy of folding.

McLean eliminated a number of positions, froze salaries for 18 months, and spearheaded a successful drive to create a public hospital district that encompassed outlying communities. By year's end the hospital showed its first positive balance in six years—nearly \$58,000. In 1994 and 1995 Whitman was listed among the top 100 hospitals in the country by a national HCIA-Mercer ranking.

McLean assumed his duties at Mount Carmel Hospital, Colville, in August 2001. For the third time, he was in a red-ink situation.

He set about a "global turnaround" through staffing changes, system support, and having Mount Carmel named a critical access hospital—a designation by Congress for rural hospitals that provides a boost in payments to help keep vital community services open.

Mount Carmel is not only making a profit again, it is proceeding with a \$20 million renovation and replacement of the 1952 facility.

—Pat Caraher '62

RUTH BENNETT

A former
“Youth for Nixon”
puts a crimp in
Christine Gregoire’s
majority



Ruth Bennett '75

BILL WAGNER

THE WAY RUTH BENNETT figures it, if the Libertarian Party candidate hadn't been on Washington's ballot for governor, Christine Gregoire (D) would have waltzed to an uncontroversial victory.

As it turned out, Gregoire's winning margin of 129 votes made her contest with Dino Rossi (R) the closest gubernatorial race in state history.

While Bennett ('75 Anthro.) finished a distant third with just more than 2 percent of nearly three million votes cast, her 63,465 total nevertheless was plenty to turn the race into a nail-biter. Her tally shrank Gregoire's margin of victory nearly 500-fold. By Bennett's estimate, her campaign nearly cost Gregoire the race.

Conventional political wisdom says that Libertarians woo Republican votes with pledges to downsize government, slash taxes, and reduce regulations. Bennett, however, ran her campaign on social freedoms and calculates that some 60 percent of her votes came from would-be Democratic voters.

"I just set out to prove that a Libertarian candidate could attract votes from Democrats and liberals," she says. "It's certainly nothing personal about Christine Gregoire."

She adds, "It depends on the issues you run on. If I would have pushed those [economic] issues, I would have drawn more Republican votes."

In particular, Bennett trumpeted her belief that gay and lesbian couples should have equal marriage rights. Articulate and active in Seattle's gay and lesbian community, she was the only gubernatorial candidate to support same-sex marriage in the voter's pamphlet and bought her only advertisement in the *Seattle Gay News*. She and her longtime partner considered getting married out of state. "We decided that until we could get married in our own home with our friends there, we thought we would stick it out," she says.

By contrast, Bennett says, Gregoire "tap-danced" around the controversial issue "as hard and fast as she could." (A Gregoire spokesman referred questions to the state Democratic Party, but the chairman didn't return calls for comment.)

Although Rossi opposed gay marriage rights in Washington, a campaign spokeswoman agreed with Bennett that the issue likely cost Gregoire.

"Christine Gregoire, to the dismay of many in her base, refused to take a position on that," Mary Lane says. "Ruth probably took quite a chunk out of what might have been Gregoire votes."

A representative of the Seattle Metropolitan Elections Committee for Gays, Lesbians, Bisexuals, and Transgendered Persons, which rated Gregoire ahead of Bennett, says there simply isn't enough data to prove which major-party candidate Bennett hurt.

Regardless of what caused the tight race, Republicans took the dispute to court seeking a reelection. They offered evidence that more votes than the 129-vote margin were tainted—including ballots illegally cast in the names of felons and dead people. The outcome of the legal tussle was unknown as this issue of *Washington State Magazine* went to press.

Meanwhile, Gregoire appointed an election reform task force, which developed a 15-point plan to improve the process and restore shaken voter confidence. The task force includes as co-chairs Secretary of State Sam Reed ('63 Soc. St., '68 M.A. Polit. Sci.), WSU president emeritus Sam Smith, and former state legislator Larry Sheahan ('82 Polit. Sci.).

"If anything, I did a service to the voters of this state by showing the problems" after the photo finish put the system under so much scrutiny, Bennett says.

Bennett spent most of her childhood in Longview, before attending Washington State

University, where father Wayne Bennett served on the advisory board of the College of Engineering and Architecture.

Her grandfather had been a Democratic state senator in Oregon, her father backed Republicans, and she had doorbelled as a "Youth for Nixon." After moving to Colorado, she discovered the emerging Libertarian Party, which spoke to a belief in personal responsibility over government intervention.

"What it comes down to is, Libertarians think that individuals are capable of living their own lives, and Democrats and Republicans don't trust individuals," she says.

In Colorado during the early 1980s, Bennett was the Libertarians' state party chair, organized a national convention, and twice ran for state representative, collecting up to 4.5 percent of the vote.

After moving to Seattle, Bennett again was a party leader before turning her focus to her travel business, where she indulged her interest in anthropology while leading tours of pre-Columbian sites in the U.S. and Canada.

She sold her franchise agency in 2000 and made a run for lieutenant governor on the platform that she would abolish the office. Her campaign resonated, and she collected 8 percent of the vote, a big showing for a third-party candidate. Yet in a 2002 run for state representative and in last year's gubernatorial race, she said the media and debate organizers largely ignored her.

"If nothing else, that's what this [election] shows, that voting third-party can make a huge difference," says Jan Prince, Bennett's friend who has run Libertarian campaigns in Colorado. "She is so clear about the issues and morality behind it, and she is so passionate about it. I've never seen anybody as good as she is."

—Eric Apalategui

IN MEMORIAM *continued*

Francis H. Flerchinger ('52 M.S. An. Sci.), September 2003, Olympia.

Ann Broady Wardrop ('54 Bact.), 73, November 21, 2004, Pittsburgh, Pennsylvania.

Frank Sarno ('56 Phys. Ed.).

Sara Jo Betrozoff ('58 Educ.) October 1, 2004, Redmond.

Mike Gray ('58 Ag.), 68, December 14, 2004, Sacramento, California.

Gary E. Sundquist ('58 Bus. Admin.), November 5, 2004, Tacoma.

Dennis W. Goodman ('59 Mining Engr.), 67, November 3, 2004, Spokane.

M. Bradley (Brad) Munn ('59 Gen. St., Journ.), 67, October 29, 2004, Lincoln, Nebraska.

1960s

Emery Edward Swan ('60 Ag.), 70, November 12, 2004, John Day, Oregon.

Ron Taber ('64, '69 Ph.D. History), 62, September 6, 2004, Williston, Florida.

Marshall A. Gilliland ('68 Ph.D. Am. Stud.), 67, November 27, 2004, Saskatchewan, Canada.

1970s

Kathryn Marie "Kathy" Erickson ('71 Hist.), 54, March 30, 2004, Wenatchee.

Americ Higashi ('71 Engl.), 57, January 3, 2005, Poulsbo.

Michael Collier ('72 D.V.M.), February 3, 2005, Hawaii.

Augustine Moses Macha ('73 Ph.D. An. Genetics), 65, June 4, 2004, Tanzania.

Jack Nutt ('73 Admin.), 66, October 19, 2004, Lincoln, Nebraska.

Jean Louise Paugh Bodle ('74 For. Lang.), 52, January 19, 2005, Fairbanks, Alaska.

Barry Lee Renshaw ('74 Gen. St.), 54, September 14, 2004, Portland, Oregon.

Stephen R. Romines ('75 Elec. Engr.), 52, November 22, 2004, Molalla.

Brian G. Crosby ('76 Comp. Sci.), 50, October 1, 2004, Portland, Oregon.

Byron E. Leeper ('78 Admin.), 75, December 7, 2004, Palm Springs, California.

Ronald T. Denny ('79 Psych.), 54, December 15, 2004, Seattle.

1980s

Linda Joyce Eisele ('82 M.A. Educ.), 54, October 4, 2004, Columbia, South Carolina.

Raymond Lloyd McCrary ('84 Civ. Engr.), 43, October 18, 2004, New Orleans, Louisiana.

Frank Cowles, Jr. ('85 Home Ec.), 48, November 29, 2004.

1990s

Scott McGowan ('94 For. Lang.), 32, October 14, 2004, Puyallup.

Sandy Richards ('96 M.A. Crim. Just.), 62, November 13, 2004, Spokane.

Faculty and Staff

Loretta Fay Marks Carstens, 75, October 18, 2004, Pullman. Worked for WSU for over 20 years in food services and housekeeping.

Allene Chambers, 86, December 27, 2004, Cul-de-Sac, Idaho. She was the cook at Alpha Tau Omega Fraternity for many years and worked in administration at WSU.

Margaret "Peg" Eastlick, 93, October 3, 2004, Pullman. She taught in WSU's veterinary pathology program from 1941 until 1968.

George Frykman, 87, December 30, 2004, Pullman. Taught American history at WSU from 1950 until he retired

in 1987. Served as assistant to the dean of the Graduate School and chair of the University Senate. Appointed WSU's Centennial Historian in 1985. Author of *Creating the People's University: Washington State University, 1890-1990*.

Wilma L. Gass, 94, November 7, 2004. Worked at Holland Library from 1948 until she retired in 1972.

Randall Hamm, 91, December 23, 2004, Wilsonville, Oregon. Emeritus professor of chemistry. He semi-retired in 1968 but continued to work as a senior analytical chemistry faculty member and as associate chair of the chemistry department until 1978.

Robert Jonas, 78, December 26, 2004. He came to WSU in 1966 and taught biology and wildlife management at WSU. He worked for the University for 25 years and retired in 1991. He became chair of the general biology program in 1981 and received the WSU Faculty Excellence Award for teaching in 1985.

Jack T. Kimbrell, 83, January 24, 2005, Sonoma, California. Taught mechanical engineering at WSU for 32 years, and retired in 1986.

Shelby "Al" Kircher, 95, Salem, Oregon. WSU head football coach for four years.

Jeffrey A. Krautkraemer ('76 Ec.), 50, December 10, 2004, Pullman. Taught natural resource and environmental economics at WSU from 1981 until 2004.

Joseph Labat, 69, November 21, 2004, Florida. Taught in the Department of Foreign Languages and Literatures at WSU from 1973 until his retirement in 2000.

Leila Sturgis Old ('64 Ed.D.), 88, October 21, 2004, Albion. In 1948, she began teaching various home economics classes at WSU, including clothing construction, dress pattern making, and weaving.

Delbert Plumley, Sr., 70, October 13, 2004, Spokane. Worked as assistant steam engineer at WSU for 18 years.

Harold "Hal" Romberg, 91, January, 5, 2005, Spokane. Former WSU Regent.

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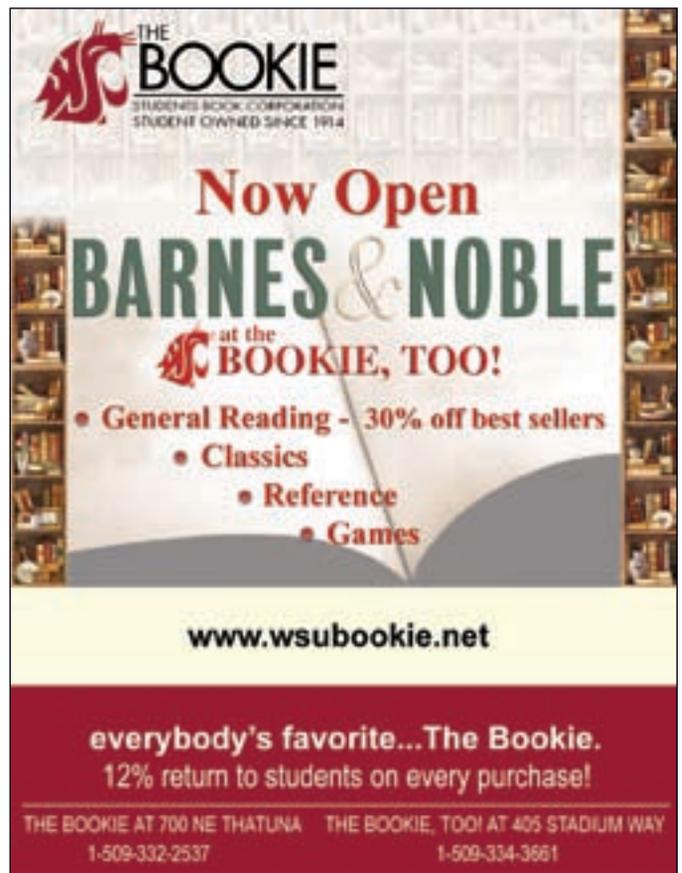
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Herb and Peg Eastlick

A Legacy for the World



Peg and Herb Eastlick

Last October, when Dr. Irwin “Ernie” Rose learned he had won the 2004 Nobel Prize in chemistry, he remembered the influence of the late Herbert Eastlick on his life. “Dr. Eastlick was an inspiring teacher,” said Rose. “He really influenced me in terms of getting into the spirit of research.” Now an enzymologist and emeritus researcher at the University of California-Irvine, Rose attended Washington State College in the 1940s when Herb was professor of zoology and the premedicine advisor.

Many of Eastlick's former students have expressed similar appreciation for the mentoring he and his late wife, Peg, gave in abundance. More than a few credit Herb for getting them admitted to medical, dental, or veterinary schools. Peg, too, kept in touch with her former veterinary pathology students. Eastlick alumni serve as teachers, health professionals, researchers, and academicians around the world. As Herb observed in 1979 during the dedication of Eastlick Hall at Washington State University, the Eastlicks' own achievements “have been magnified tremendously by their students' superlative accomplishments.”

Eastlick demanded excellence. He called himself a “taskmaster and an autocrat in the classroom.” But his concern was for his students, and he had a knack for stimulating them to the utmost. “I work them diligently in the classroom,” he said, “not for passing tests, but to prepare them for life.”

The Eastlicks and many of their students became lifelong friends. Long after they retired, Herb and Peg received hundreds of cards and letters each Christmas. As Herb once noted, “My life is tied up in these young people. I know some of these students better than their parents do.”

The Eastlicks further demonstrated their devotion to WSU by pledging their \$4.5 million estate to benefit future students and faculty. After their deaths—Herb's in 2002 and Peg's in October 2004—their estate was apporportioned to the Herbert L. Eastlick Scholarship, the Herbert L. and Margaret G. Eastlick Scholarship, and the Herbert L. Eastlick Distinguished Professorship, as they had directed. Including the estate, their lifetime gift total is more than \$6.6 million—the fourth largest individual lifetime contribution in WSU's history.

Through inspired teaching, supportive mentoring, and visionary gifts for future students and faculty, the legacy of Herb and Peg Eastlick will remain a vital force at Washington State University for generations to come.

BOOKS, etc.

Genes and DNA: A Beginner's Guide to Genetics and Its Applications

By Charlotte K. Omoto and Paul F. Lurquin
Columbia University Press, New York, 2004

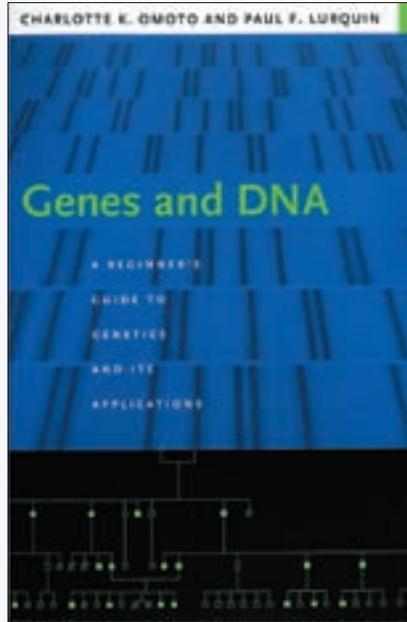
Evelyn Fox Keller, a well-known social critic and professor of philosophy of science at MIT, termed the 20th century the “Century of the Gene.” Five years into the 21st century, it can be easily argued that we are in for another century full of genetic wonder, hope, frustration, and fear.

It is impossible to read a newspaper or watch the news without hearing about the discovery of a gene that will affect all of our lives. Recently, genes have been reported to be responsible for problems ranging from compulsive shopping, obesity, and alcoholism to breast and prostate cancer. How do nonscientists wade through the hype of these new discoveries? How does society make sense of what is being put into our food under the umbrella term “genetic modification?” How do we decide if it is ethical, or smart, for scientists to clone humans or to manipulate crop plants?

In their book, *Genes and DNA: A Beginner's Guide to Genetics and Its Applications*, Washington State University professors Charlotte Omoto and Paul Lurquin offer a starting point for addressing these questions. The book walks the reader through the complex world of genetics and does an excellent job, not only of explaining difficult concepts, but also putting them in a historical perspective.

The authors go far—perhaps too far—to avoid making judgments for the reader. They do, however, provide information that will help readers understand the science behind modern genetic techniques so they can add science to the mix of factors—including emotion, values, religion, experience, and common sense—upon which they base moral and ethical decisions.

The book opens with a definition of DNA, how it was discovered, and why it is such an interesting molecule. It then progresses through chapters on topics that range from human genetics to the use of bacteria as factories for producing synthetic proteins, to genetic testing. Scattered throughout are chapters that explain how genes actually function to maintain and, ultimately, define life. Each step of the way, the authors are careful to bring the topic back to the gene. In the chapter, “Survival of the Fittest?,” for example, they introduce complexities such as



the forces of environment and selection in causing change, but they keep these concepts in the context of the gene.

The individual chapters stand sufficiently on their own to make the book useful as a reference source to help average readers make sense of what they read or hear in the popular press. The glossaries on scientific names of organisms, human genetic diseases, and terms should also come in handy.

Many of the chapters end with a “Try This at Home” section for children. I can imagine kids on a rainy Saturday trying out the “Extract DNA from Vegetables in Your Kitchen” idea. However, unless your child is the president of the math club, I don’t see him or her calling friends over to play the “DNA Replication, Transcription, and Translation Game.”

While it provides a sound basic explanation of genes, the book leaves out some of the less positive outcomes of genetics. The chapter titled “Nature Versus Nurture” would have been a prime spot to discuss the roles of geneticists in the eugenics movement in the first half of the 20th century. In the United States, the movement resulted in over 60,000 involuntary sterilizations, mostly of women, who were deemed to be genetically “unfit.” It is a sad chapter in our scientific history, and it would have been valuable to see the authors discuss the movement in the context of their book. Genetics, like all science, has gone down some regrettable paths. To highlight these should humble rather than shame us. Ultimately, the knowledge of our mistakes should help us to better steer our efforts in the future.

As a society we are asked to make informed decisions on complex issues such as stem cell

research and the labeling of our food based on its level of genetic modification. We have a lot of homework to do, and this book is a good start.

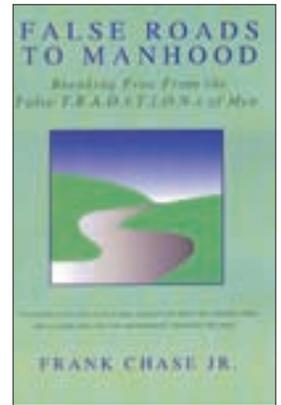
For more information, see www.bn.com or www.columbia.edu/cu/cup/catalogdata/023113/0231130120.HTM.

—Stephen Jones

A professor in the Department of Crop and Soil Sciences at WSU, Stephen Jones teaches graduate courses in advanced classical genetics and the history of genetics.

False Roads to Manhood

By Frank Chase, Jr. '89
Ashley & Taylor Publishing, Huntsville, Alabama, 2004



Frank Chase, Jr. was on a bad road, and he knew it. Teen troubles led to arrest

for theft; young adulthood led to illegal drugs and drinking. There was a divorce. He didn't know where to turn.

As a young soldier he finally found his way. He became a Christian. He turned his life around and began writing a book in 1995 to share his experiences.

His *False Roads to Manhood* was published April 2004. “The book is about roads and decisions that men choose in life that cause them to basically go down false roads which make life difficult for them,” the 44-year-old Baltimore, Maryland, native says.

The subtitle of the book is *Breaking Free from the False T.R.A.D.I.T.I.O.N.s of Men*. That acronym stands for Truancy, Rejection, Anger, Discouragement, Ignorance, Transients, Incarceration, Offenses, and Nomads. Each chapter is dedicated to one of those false roads, includes an interview with someone who has traveled on it, and gives Chase's directions for the road out.

“It's a self-help book about getting men off those false roads and getting them back on positive roads in life,” Chase says. He adds that it's not only for men, but also should help women understand men's concealed feelings and struggles.

See www.positivejourney.com.

Adapted from an article by Skip Vaughn in the *Redstone Rocket*, Redstone Arsenal, Alabama.

In Praise of Fertile Land

Edited by Claudia Mauro
Whit Press, Seattle, 2003

There aren't many anthologies that juxtapose poems by the likes of Robert Frost with those of elementary school kids. *In Praise of Fertile Land* does, and it works.

"My long two-pointed ladder's sticking through a tree / Toward heaven still, / And there's a barrel that I didn't fill / Beside it, and there may be two or three / Apples I didn't pick upon some bough. / But I am done with apple-picking now," intones Frost in "After Apple-Picking"—expressing, it may be, not just the fatigue of harvest, but adult world-weariness.

Then along comes second-grader Henry Phillips, offering "A Recipe for a Garden":

"Add roses and a huge stretch for tulips. / Pinch in a bowl of knowledge. / Hope for daisies to grow.

"Combine bravery with it / to come up with corn, peas, potatoes, / tomatoes, and strawberries."

The child's optimism and faith contrast neatly with the older man's satiety. And the two poems, one dealing with seedtime and the other with harvest, replicate the agricultural cycle the entire book celebrates.

But the mix of poets isn't the only thing that makes *In Praise of Fertile Land* unique. "Buy a book, save a farm!" proclaims a flyer for a public reading from the anthology. Indeed, proceeds from the sale of the book have done just that, helping the PCC (Puget Consumers Co-op) Farmland Fund to purchase and preserve a 174-acre farm in the Walla Walla Valley and to lease it to the Huesby family, who have farmed in the area for four generations. (See "Happy Cows, Contented Ranchers," *Washington State Magazine*, fall 2003.) All of which is in keeping with the publisher's philosophy of helping other non-profits work toward environmental and social justice.

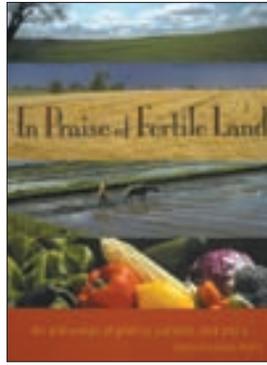
For information, see www.bn.com or www.whitpress.org/titles/index.html.

—George Bedirian

Dancing to the Concertina's Tune: A Prison Teacher's Memoir

By Jan Walker '60
Northeastern University Press
Boston, 2004

Educating the incarcerated is not an undertaking for the faint of heart. In *Dancing to the Concertina's Tune: A Prison Teacher's Memoir*, Jan Walker '60 explores her unusual career in correctional education and seeks to give the reader an



understanding of prisons and inmates.

At bottom, the book is about how education can be used as a means toward transformation and, perhaps, redemption. Walker is steadfast in her argument for educating the imprisoned in parenting and family skills. She clearly lets both reader and inmates know she understands that, while poor

family structure is likely to have contributed to the criminal's path, it is no justification for criminal acts.

Walker set up the Home and Family Life program at the Purdy Treatment Center for Women—now the Washington Corrections Center for Women—in Gig Harbor, Washington, where she taught from 1979 to 1990. Subsequently, she transferred to McNeil Island Corrections Center (MICC), located in south Puget Sound near Tacoma, for another seven years, acting as coordinator for Project Social Responsibility. She writes, "Whatever my label, all who met me knew I taught, counseled, and advised in the context of personal and social responsibility. I wanted [MICC] inmates to reconsider their choices, their lives, their families and communities, and their own personhood. I wanted to be more than just another authority figure dishing out information or rules to inmates."

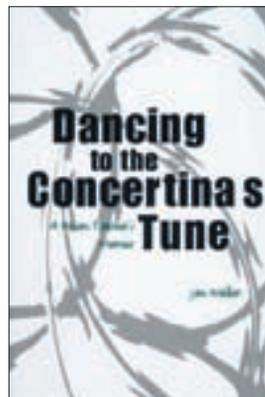
Most of the inmates' stories in this book are about success and hope. If you're looking for graphic details of horrific crimes, you won't find them here, save for the story of Tanya, who "spanked" her toddler to death. Instead, Walker focuses on how she worked with inmates to encourage them to build trust and tell the truth to their families outside prison walls.

At the end of the century, more than 1.5 million children nationwide had a parent in prison. Walker, who was spat upon by skeptics who believe inmates should have thought about their children before committing their crimes, defends her role, saying, "We need to think about the children now." In *Concertina's Tune*, she succeeds in presenting her case for educating the incarcerated in parenting skills and gives the reader a view of prison life not seen in mainstream media.

For more information, see www.bn.com or www.atsweb.neu.edu/nupress-cgi/nupress.cgi?action=more_info&id=450.

—Kathie Meyer '92

Kathie Meyer is a frequent contributor to Washington State Magazine.



Till Hell Freezes Over

By Anne Barton '57
LTD Books, 2003

In *Till Hell Freezes Over*, her fourth mystery novel, author Anne Barton—a.k.a. Dr. Florence Barton ('57 Vet. Med.)—takes us on a journey of murder, mystery, and intrigue with a young veterinarian, Dr. Erica Merrill.

The story takes place during a snowy winter in a backwoods logging community in north-central Idaho. After making a rural house call only to find her client missing, Merrill sets out to look for him and discovers him next door in handcuffs over the body of his murdered neighbor.

Merrill concludes the police have the wrong man after she examines the crime scene and learns that a set of snowy foot prints and other bits of circumstantial evidence are all that link him to the crime. She challenges the district attorney, who is gleeful about prosecuting the case, to look for more evidence. Instead of listening, the DA embarrasses her in front of the sheriff and his deputies, one of whom is her former high-school sweetheart.

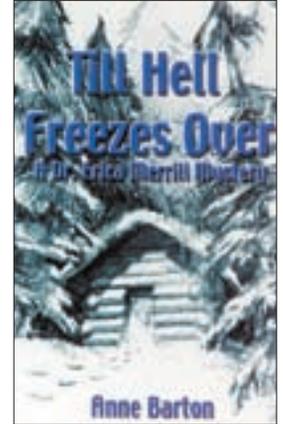
Determined to find out what really happened, Merrill looks for clues on her own. Can she solve the murder? Can her fledgling veterinary practice survive in a community whose people don't trust a female veterinarian? Can she battle the small-town gossip by which everyone seems to know what she is going to do before she does? And what about that old flame?

While the story contains characters that are a bit stereotypical, Barton includes so many twists and turns that it is a challenge to guess who the real culprit is. It is also a quick and enjoyable read—good for taking on a plane or curling up with in a chair for an afternoon.

For more information, see www.bn.com or www.ltdbooks.com/eb.php3?ebookid=15465.

—Emmy Sunleaf Widman '02

Emmy Sunleaf Widman is a longtime contributor to Washington State Magazine.



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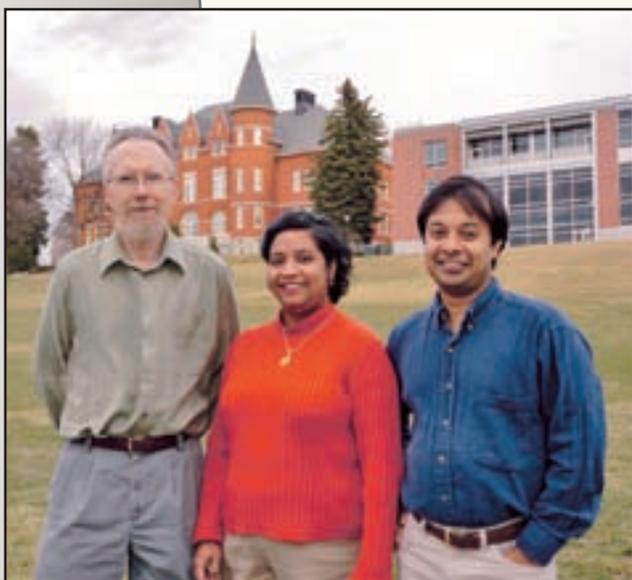
Photographs by Bill Wagner



WASHINGTON'S OLDEST APPLE TREE: Mike Welding must walk under the railroad overpass to visit the oldest apple tree in the state during his noontime strolls along the Columbia River in Vancouver. He wishes the landscape still looked like it did when the tree was planted at Fort Vancouver in 1826. Now it occupies a tiny green parcel sandwiched between elevated railroad tracks, State Route 14, and I-5.

WSU Bone Research Strengthened Generous Grant Creates New Research Laboratory

As the U.S. population ages, an increasing number of people suffer from age-related bone problems, such as arthritis. Being able to develop a bone imitation with similar physical, mechanical, and biological properties as real bones would be invaluable to the medical community.



WSU researchers Howard Hosick, Susmita Bose, and Amit Bandyopadhyay have teamed up to develop innovative bone implants and materials.

A team of Washington State University researchers—including Amit Bandyopadhyay, Susmita Bose, and Howard Hosick—is looking to do just that, thanks to a \$750,000 grant from the W.M. Keck Foundation to establish a laboratory for biomedical materials research.

Part of WSU's new Bioengineering Research Center, the Biomedical Materials Research Laboratory will allow the research team to develop new bone implants, structures, and bone-grafting materials. Currently, they are developing calcium-phosphate-based ceramic scaffolds to improve bonding between implants and human bone. Using nanoscale ceramic materials, they hope to build porous scaffolds, permitting bone cells to grow while the scaffold slowly dissolves into the body and is replaced with bone cells.

They also hope to better understand the process of bone regeneration and interaction with implant materials at the cellular level. Thanks to the team's research, future implants could last much longer than the average 10-year life span of those currently in use.

WSU will also become the first academic institution in the United States to use laser engineered net shaping (LENS) technology to develop porous metal-ceramic implants for load-bearing applications. Unlike the implants now in use, which, due to their density, weaken surrounding bone and implant bonds, porous implants would allow bone cells and connective tissue to grow into the structure, yielding a stronger version of bone. Eventually, the team hopes to develop a bone replica based on a patient's CT (computed tomography) or MRI (magnetic resonance imaging) scans.

"By bringing these world-class researchers from different disciplines together, a novel research program has been developed at WSU which allows engineering and science to help address significant societal needs," said Jim Petersen, vice provost for research. "This grant ensures that WSU will remain a leader in the development of these important technologies."

Founded in 1954 by the late W.M. Keck, founder of Superior Oil Co., the W.M. Keck Foundation supports pioneering efforts in medical research, science, and engineering, as well as undergraduate science and humanities education.

WHAT'S YOUR LEGACY?

Ruth Andrews '42 is a loyal Cougar and is passionate about Washington State University civil engineering students.

Ruth created her WSU legacy to honor the commitment of her late husband George ('41 B.S. Civ. Engr.) to the College of Engineering and Architecture and the Washington State Department of Highways.

A portion of her estate will be added to the George H. Andrews Memorial Scholarship, which she established in 1988 to support WSU civil engineering students interested in transportation. Ruth's memorial to George inspires and motivates the best and brightest at WSU, continuing the Cougar tradition of excellence.

The WSU Foundation provides a FREE planning kit to help you think through your estate planning objectives and make more efficient use of your time with an attorney. To receive your kit, contact the Gift Planning Office.



For more information about creating your legacy, contact the Gift Planning Office at 800-448-2978, gift-planning@wsu.edu

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