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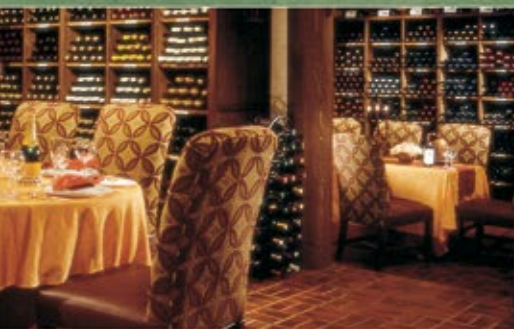


COVER
STORY

Of Rhythm and the River A Titan's Tale • Pants That Fit • Uncertainty and Hope in Ukraine



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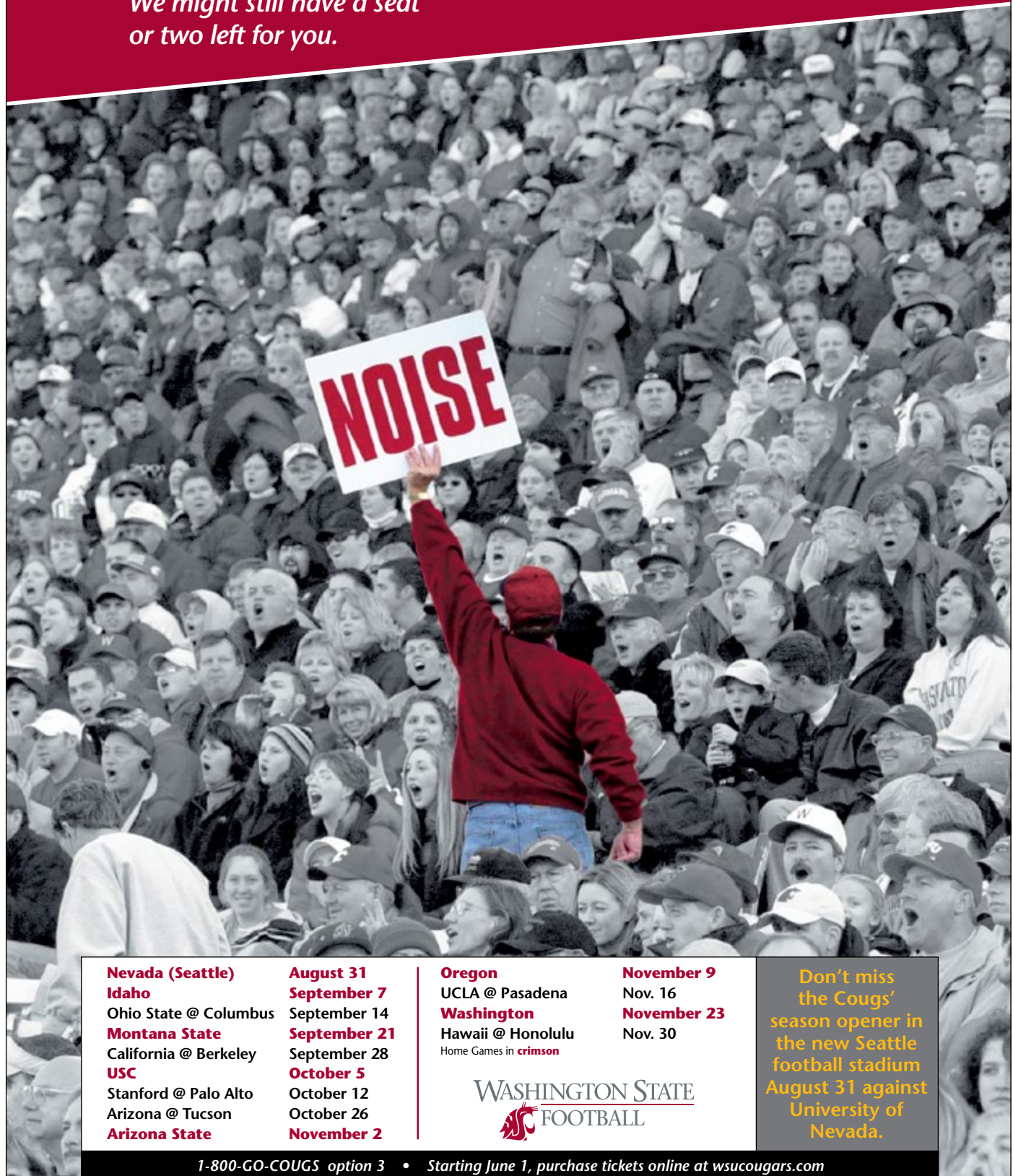
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October 26

November 2

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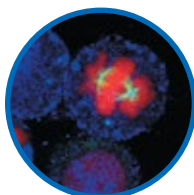


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photograph by Robert Hubner



WashingtonState

m a g a z i n e

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LETTERS



The Friels

Dear Editors:

Enjoyed very much your article (WSM Spring 2002) on Mrs. [Catherine] Friel, and thought you might enjoy my contact with Jack Friel, a real gentleman.

I came to WSU, known then as Washington State College, in the summer of 1956 as a teaching assistant in the Department of Mathematics. In the fall I was over at Bohler Gym watching the basketball team practice and introduced myself to Jack. I told him that I had just come from a small high school in California (Sutter UHS) as a math teacher and varsity basketball and baseball coach. Jack arranged for me to have a locker and invited me to use the gym even though his team was practicing. I deeply appreciated his hospitality, since TAs were at the bottom of the faculty totem pole.

The math chair, Sydney G. Hacker, a very fine gentleman, recruited me, and my major professor was Cal Long, also first rate. Another professor I enjoyed, even though he dragged me onto the tennis court when I should have been studying, was Paul Meyer.

Bill Morse, Portland, Oregon
'58 M.S. Math.

PANORAMAS

Encourage Dr. Terrell

Dear Cougars:

Those of us who attended Washington State University from 1967-1985 remember the warm hello and brisk walk of Dr. Glenn Terrell, as he strolled across campus. He seemed to know everyone. As a former student body president, I found that Dr. Terrell always had time for students, and he always kept his door open. He had a gift for valuing the views of young people, even while sometimes disagreeing with them.

Dr. Terrell retired from WSU in 1985 and almost immediately joined the Pacific Institute, an organization dedicated to assisting communities and corporations reach new levels of organizational effectiveness. He continues to work at the Pacific Institute every day, even at 81.

Dr. Terrell has been telling some of his colleagues that he is considering whether he should combine the important work he did at WSU as president, with his important work at the Pacific Institute. He talks about writing a book that records the history of the University during his leadership and reflects on lessons he has learned about leadership during his professional career.

Surprisingly, he wonders if such a book would be read. Several of us who worked closely with Dr. Terrell in student government have been encouraging him to write this book. We think he needs a little push.

His e-mail address is: gterrell@pac-inst.com. We encourage you to send him an e-mail and encourage him to share his memories and observations about university leadership in a book.

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AN INSTRUMENT MOST RARE

AS SOON AS HE TOUCHED the keys of the Fazioli, Gerald Berthiaume knew he was playing a magnificent piano. He found its construction and luxurious sound far superior to the better known Steinway.

Berthiaume discovered the instrument while shopping for Washington State University at Baldassin Performance Pianos in Salt Lake City, the only licensed dealer in the West where a Fazioli can be purchased.

"This was an incredible piano," says the program coordinator for WSU's School of Music and Theatre Arts.

Paolo Fazioli, the piano's craftsman and an accomplished pianist in his own right, was among the guests when the 10-foot, 2-inch Concert Grand Fazioli made its debut at a gala faculty recital in WSU's Kimbrough Concert Hall January 23.

Fazioli pianos are handcrafted from red spruce cut from Italy's Val di Fiemme, the same forest where Stradivarius gathered wood for his violins. Fazioli chooses the wood himself, selecting the one perfect tree out of 200 that has a natural resonant quality.

Over a period of two years the timber is transformed in a laborious process, including a natural drying period that takes six to 12 months. The soundboard is electronically tested for perfect pitch, as well as a tiny portion of strings normally untested by other manufacturers. The bridge is built with wood of varying hardness.

"All of these things together combine for an incredible sound and ringing quality,"

Berthiaume says. "It is unlike any other piano I've ever played."

Since the Fazioli grand piano made its debut on the European market in 1981, it has won praise from world-class musicians. Now Fazioli has his own shop in Italy, where fewer than 70 pianos are completed annually. Some competitors create more than 3,500 a year. About 65 percent of the buyers are individuals, while the rest are sold to institutions such as concert halls and recording studios.

WSU's Fazioli grand piano is housed on the Kimbrough Concert Hall stage. It will be used by music students and faculty for rehearsals and recitals. ■

—Debra Smith



Paolo Fazioli, craftsman of the Concert Grand Fazioli piano.

ROBERT HUBNER



ROBERT HUBNER

OLYMPIC TORCHBEARER

ABOUT 7 P.M. JANUARY 24, John Tarnai accepted the Olympic Torch and braved chilly winds along an eighth-mile leg of the Olympic Torch Relay in downtown Spokane. He said he was “honored and humbled” by the people who lined both sides of the street cheering and waving American flags. “A part of me said, ‘don’t trip.’”

More than 11,500 torchbearers were selected to carry the Olympic flame from Atlanta to Salt Lake City, site of the 2002 Olympic Winter Games. The journey began December 4, 2001 and concluded with the February 8 lighting of the cauldron in Rice-Eccles Olympic Stadium. The torch passed through 250 U.S. cities and 46 states.

A jogger and recreational skier, Tarnai directs the Social and Economic Sciences Research Center (SESRC) at Washington State University. He holds two psychology degrees (’76 M.S., ’82 Ph.D.) from WSU.

SESRC colleagues Rita Koontz and Danna Moore nominated Tarnai to be a torchbearer. “He is an outstanding example of someone who inspires others . . . and one who promotes team spirit among our 300-plus employees,” they wrote.

It was wonderful to be able to represent the Olympic spirit and Pullman, Tarnai says. “It’s an experience that only comes along once in a lifetime.” ■

AN UNTAMED MIND

*“We lose touch with our senses.
We shouldn’t tune things out.”*

TWO MINUTES INTO OUR INTERVIEW IN THOMPSON HALL, Katherine Grimes—“Katie” on second reference—must leave. She can’t concentrate because the murmurs of students passing outside the closed door are amplified to rock-concert cacophony in her ears.

Let’s try another location, I suggest. The Cooper Publications Building is quiet. But as we step through the door, Katie’s first words are, “What’s that smell?” I’ve long since relegated the ever-present odor of printing ink to the background. Katie doesn’t.

As I turn on the lights, Katie immediately closes the door to my office, her defense against more assaults on her senses. She sits in a chair, rests her right ankle on her left knee, touches her short, blonde hair lightly, then touches it again, eyes taking in a state map on the wall, lists of phone numbers on the bulletin board, the sleeping computer monitor. I see she’s distracted and ask, “What do you notice?”

Everything. An offset printer chuk-chuk-chuks in the building’s heart. The ventilation system whispers overhead. A ceiling light flickers imperceptibly. The phone rings. She asks me if I could shut off the phone.

I look at the 20-year-old Washington State University sophomore and wonder if *Homo erectus* was autistic. Such hyperawareness would explain how the species went from hunted to hunter. Katie knows her four cats by smell.

“We lose touch with our senses,” she says. “We shouldn’t tune things out.”

A WOMAN OF DISTINCTION

IN EARLY MARCH, Katie, who earlier earned the Girl Scouts’ highest honor, the Gold Award, traveled to Washington, D.C., to receive the scouts’ Young Woman of Distinction award, along with nine other women in the nation. The group was recognized for providing exceptional service to their communities and showing great dedication to achievement through their Gold Award projects.

Katie met U.S. senators, Justice Sandra Day O’Connor, Elizabeth Dole, astronaut Kathryn Sullivan, and others celebrating the Girl Scouts’ 90th anniversary. All 10 of the scouts received a \$1,000 scholarship.

Representing her community of Federal Way, Katie had set her sights on earning the Gold Award a few years after she joined the scouts as a second-grader, a time when resources for children with autism in her hometown were few. And the best person to start the Federal Way Autism Support Group, it turned out, was Katie herself.

LIKE A CAT

KATIE WAS DIAGNOSED at age three with pervasive developmental disorder, a subtype of autism. She is high functioning—meaning she talks, has few autistic traits, and can do almost everything a non-autistic person can. On the other end of the spectrum are low-functioning individuals who are often nonverbal and neurologically impaired. Each autistic individual is quite different from every other.

According to information on the Autism Society of America Web site, autism impacts the brain's normal development in social interaction and communication skills. Those with autism typically have difficulties in communicating and playing with others and relating to the outside world. They may exhibit repetitive body movements, such as rocking, unusual responses to people, attachments to objects, and resistance to changes in routines. They also can experience heightened sensory awareness.

Katie is rather particular about what she eats. No cheap, fast, junk, or low-quality food. No split-pea soup. No raw vegetables. Or meat that's overcooked. But she enjoys sauerkraut and seafood of all kinds.

She can become overstimulated or overstressed. She doesn't like to be touched by strangers unexpectedly or without permission. She doesn't like handshakes.

Though nearsighted, she can see very well in the dark. She sleeps a lot.

And when Katie is in a new environment, she has to check everything out.

"Like a cat, we sense more," she says. "I don't consider this a disability; it's a hyper-ability."

Where autism is maladaptive for Katie is in discriminating between

different sensory and social cues with less than the ease and speed of a person without autism. In class, she sometimes tunes out the professor's dialogue or tunes in to one part to the exclusion of the next piece of information. It takes her a long time to make choices, as from a restaurant menu.

Yet autism gives Katie blessed leave to question why people do or say things in the first place.

"I've noticed the peculiarities of how people act, how they follow cultural norms. Most people learn cultural norms and follow them without recognizing them. I notice these norms and choose not to follow some," she says. "When people ask you how you're doing, but don't want or don't wait to hear an answer if it's bad, I don't understand that. Sometimes, I'll answer truthfully when I want to give the world a piece of my mind."

But the outspoken Katie is intensely private. It's one reason she chose to major in German, along with biology, when she came to WSU. Much of what's associated with the German culture is very similar to how Katie experiences autism. She tends to be formal, orderly, and reserved. She keeps her distance from other people and is more particular about whom she calls a friend—she must be quite close to someone for that.

"WE'RE NOT ADOLESCENTS NOW"

"AS AN ADOLESCENT, I had a lot of frustrations and struggles because of my disability," says Katie. "When I was quiet and didn't say anything, my needs were ignored. So I started acting up, misbehaving, to get people to realize my issues were important."

"Events like Columbine have raised awareness of cruel harass-

ment in schools," she adds. "We always wait until some disaster happens before we deal with a serious issue."

Things changed for Katie in high school, with more resources available. She also met a successful individual with autism, Temple Grandin, now a Colorado State University assistant professor. There was hope.

"Now it's a lot easier. People accept me more for who I am. I've learned appropriate social cues," she says. "Here, people who are a little odd or unusual are accepted. We're not adolescents now."

Katie started the Federal Way Autism Support Group two years ago when she was a senior at Thomas Jefferson High School. Another group leader has since

taken over the work Katie started now that she's on the other side of the state continuing a Cougar tradition. (The Grimes family is loaded with WSU alumni: mother Lisa Tylczak Grimes in 1976, father Thomas Grimes in 1977, grandmother Ruth Hillier Tylczak in 1944, and aunt Margaret Tylczak Heffelfinger in 1974.)

"It would have made things a lot easier if I had known other high-functioning autistic kids like me," Katie says. "Just knowing there were others out there would have helped." ■

—Nella Letizia

ROBERT HURNER



Katherine Grimes

Sure pigs play. But what does it mean?

"THEY SPIN AROUND, TWIRL, AND TAKE A BIG LEAP IN THE AIR . . .," says Ruth Newberry. "They zigzag a bit . . . jump up and down, and then flop."

A dramatic new figure skating routine? No. Newberry is an animal scientist at Washington State University commenting on the behavior that she and colleagues observed in a study designed to learn the effects that early play experience has on the behavior of piglets after they are weaned from their mothers. In broader context, the study is part of a worldwide effort to figure out the function of play in mammals.

Our hypothesis, says Newberry, is that play may provide training for unexpected events that may cause stress. For piglets, play experience during the suckling period may help them adapt better to weaning and other stressful situations they encounter growing up.

Weaning is stressful for young piglets. Not only are they removed from their mothers, they also experience a dietary switch from milk to solid food and are introduced to strangers from other litters.

"Piglets are likely to fight at this age," Newberry said.

The stress of weaning typically depresses play, and Newberry hypothesizes the coping ability in piglets gained from early play experience would be reflected by a more rapid increase in play levels within a few weeks after weaning, compared to their counterparts who had not had that experience.

In fact, the results suggest that the more play experience piglets get during their first three weeks, especially play with piglets from different litters, the better they cope with the stress of being weaned. They also resolve conflicts more rapidly with strangers after weaning.

"It's tricky, but it's fun . . . trying to figure out why animals play," says Newberry. "Most of what they do looks like play, so the hard part is figuring out their intent."

Domestic pigs are highly social and relatively intelligent mammals that are especially playful at two to six weeks of age, she says. For example, they flop down,

use exaggerated movements, kick their legs to one side, bump into one another, and throw each other off balance.

To quantify their playful behavior, Newberry and colleagues classified the piglets' various play patterns, painted colored dots on their backs, and took videos of them playing. Then, using a computer program to track the changes in locations of the colored dots

as the piglets played, they analyzed the videos to find out how often each play pattern was performed by the piglets in the different study groups.

"We can learn a lot about their social dynamics through this automated tracking," Newberry says.

"Play is a sensitive indicator of animal well-being. Finding simple ways of increasing play behavior can mean an increase in health and productivity." ■

—*Emmy Sunleaf*



"You Can't Just Keep Sweeping This Stuff Under the Rug"

WASHINGTON STATE UNIVERSITY'S 15th Annual Dr. Martin Luther King, Jr.

Celebration brought hundreds out to Beasley Performing Arts Coliseum in mid-January,

despite a blizzard. Those who braved the storm were rewarded with an inspirational program of music, film, special recognitions, and a speech by Alabama civil rights lawyer Morris Dees, co-founder of the Southern Poverty Law Center. Dees has won dozens of important legal victories against hate groups, including the Ku Klux Klan, White Aryan Resistance, and most recently, the Aryan Nations in Idaho.

In September 2000, a jury of 12 Idahoans found The Aryan Nations leader Richard Butler, along with several other members, liable for \$6.3 million in damages to two local residents who were assaulted at the edge of the Aryan Nations compound in 1998. The residents, Victoria and Jason Keenan, were represented by Dees and the Southern Poverty Law Center.

Though Butler still resides in the Coeur d'Alene region, the suit bankrupted his organization, which now calls Ohio its headquarters. State and local citizens are turning the former Aryan Nations compound into a peace park.

Dees held a press session prior to delivering his formal speech at Beasley. In response to questions from freelance journalist Andrea Vogt and Northwest Public Radio reporter Glenn Mosley, he talked about the suit and his experiences in the Northwest. Following is a transcript of that interview, edited for length.



Andrea Vogt and Glenn Mosley interview

MORRIS DEES

ROBERT HARNER

"We learned something from Sherman coming through Georgia: We have a scorched earth policy. I don't mean that in a vindictive sense, but we literally take them for everything they've got."

Andrea Vogt: *The community movement that led up to the civil suit that bankrupted the Aryan Nations was a grassroots, from-the-ground-up effort in Idaho. I guess I'd be interested in hearing you speak to the changing nature of how we battle hate in our communities.*

Morris Dees: Well, the approach that we take, dealing with specific groups like the Aryan Nations, is to take them to court and hold the leaders responsible for what their members do and the violence they cause. But we realize that you can't necessarily change America or solve all the problems fighting hate in court . . . So we try to teach tolerance in the classroom. We think that is much more significant. Therefore, we have our project, Teaching Tolerance, that we founded a little over 10 years ago, and today some 80,000 schools in the country use Teaching Tolerance education for kids . . . It's hard to measure attitudinal changes in the country, but it certainly fills a tremendous void in schools that didn't have the materials, and because we give it away free, it has almost universal acceptance.

AV: *And more specifically, the grassroots campaign in the Coeur d'Alene region?*

MD: I think the Northwest has done an exceptional job, especially with the Northwest Coalition, the groups founded after [community activist and Catholic priest] Bill Wassmuth's house was bombed . . . Because what I found out when I came out here to try this case . . . is that most people do not agree with the racist attitudes of Richard Butler . . . they'll tell you that in no short order. But on the other hand they'll say, "That's his free speech rights, and our attitude out here is that even though he's doing this,

he gets to do what he gets to do just as long as he doesn't come on my side of the mountain and mess with me."

AV: *Sort of a live-and-let-live attitude.*

MD: Yes, a live-and-let-live attitude that we thought was a little bit of a putting-your-head-in-the-sand attitude. We were worried about that when we picked a jury out here. . . . So one of the goals we had . . . was to get across the whole idea that he was doing more than just preaching his own personal views. He was bringing into this area of this country convicts, people with violent backgrounds . . . doing things like bombing Bill Wassmuth's home. Had that happened in Alabama, had a Catholic priest's home been bombed by people like that, they would have shut the place down in a day. . . .

When Mrs. Keenan's car was shot at that night, really two things happened. First of all people figured she must have been doing something wrong to get her car shot at. . . . They chased them two miles down the road, the car had bullet holes in the back, the tire was shot out, the car was in the ditch, and a man saw the whole thing and he heard them shouting the Nazi stuff and heard them saying "I'm going to kill you." . . . No question about who did it. The investigative officers for the sheriff's department didn't confiscate the car, put it on a trailer to take it in and get forensic evidence, they didn't cordon off the crime scene, they did nothing.

In fact Mrs. Keenan had to call her husband to come and change the shot-out tire, and she drove her own car home, or her son did, and her husband drove the other car. There was no victim's assistance, no nothing. The chief investiga-

tor for the Kootenai County Sheriff's Department, he goes out to the Aryan Nations compound, because they are right before their big annual march and he says, "You know, y'all got to stop that shooting at cars on the road, and after the march is over, I want you all to come down so we can talk about that."

I mean . . . that's assault with intent to murder. And the guy who did the shooting was right there; his chief investigator was talking to him. So it was almost like these people had become part of the scenery, part of the woodwork, and that was a horrible thing that took place.

If you listen to the taped interview, when they finally extradited the guy back from Missouri, who did the shooting . . . it was like, we don't really believe what Mrs. Keenan is saying, you just tell us what happened, your side of it. It was almost apologizing that they had to talk to this guy, and I found that really shocking. I didn't put this deputy on the stand . . . honest to God I didn't trust what he would say. I don't really think it was meanness on his part, on the sheriff's part, but it just became business as usual and they just wanted to deal with them as little as they as could. Let them alone.

AV: *So were you surprised when the 12 Idaho jurors came back unanimous then? . . .*

MD: No. I wasn't surprised. . . . We did extensive research on every juror. We had a trial theme. The trial theme was, "This is a man who is out of control, he is out of step with this community, he brings these violent people into the community, he's not a nice old grandfatherly figure. . . ." *continued on page 10* ►

Glenn Mosley: *The violence aspect aside, Butler under the first amendment can stand there and express his views, but if I heard you right, is what you are saying that part of the problem is that folks on the other side of the mountain weren't using their first amendment rights to argue back?*

MD: I think there was a certain fear in the community that it would hurt the community's public image if they focused the attention on that. I felt like the sheriff in the movie *Jaws* when I was out here working on the case—I was running up and down the beach saying "Hey, there's sharks out there in the water, get out," and the PR people were saying, "Shh shh, we depend on the tourists here." So I think you had a little bit of that. Thank goodness for people like *The Spokesman-Review* and NPR, who did some really good coverage. You had to understand that you can't just keep sweeping this stuff under the rug. The schoolyard bully just gets bolder if you don't confront him.

GM: *So you confront them in Coeur d'Alene and other places, but does the movement itself just move and then you have to fight it in another place, or how do you continue the fight?*

MD: . . . I think the Aryan Nations is pretty much finished. Even though they have a little Website, . . . I think we could take it off the air if we wanted to. . . .

What I've seen, though, . . . If you go out to these groups, their rank and file members become very concerned about what they do and say. Because all you have to do is subpoena enough of them for depositions, they have to skip their jobs and come down there, especially in the Southeast, their wives are going to say, "Hey, you know, why don't you stay away from that bunch." The word spreads, we know it because our undercover people in these groups tell us, they say 'Hey, you know, you're going to get sued if you don't watch out.' It makes them cautious. The other thing is you simply just take away their assets. . . .

You know, we learned something from Sherman coming through Georgia. We have a scorched earth policy, and I don't mean that in a vindictive sense, but we literally take everything they got. ■

Interviewer Andrea Vogt is working on a book about Northwest civil rights leader Bill Wassmuth for the University of Idaho Press.

Glenn Mosley is a reporter for Northwest Public Radio.



FUTURE TEACHERS OF COLOR

The gap between minority teachers—about 6 percent—and minority school children—about 24 percent—is widening in Washington. As part of a move to remedy this situation, 176 high school and community college students attended the College of Education's Future Teachers of Color (FTOC) conference at Washington State University in mid-February.

The conference has become very popular statewide, says Johnny Jones, the college's director of recruitment and retention and coordinator of the program. The program has a waiting list of 120 students.

Since the FTOC program was created at WSU in 1994, undergraduate enrollment in the college has increased from five to more than 100. Fifteen FTOC graduates are now teaching in Seattle, Renton, Tri-Cities, and other districts in the state.

The program has received funding from several foundations, as well as from WSU regent Ken Alhadeff ('70 Gen. St.) and the estate of the late Bellevue music teacher James A. Taylor ('63 Music). ■



Above left: Paula Groves, assistant professor, Department of Teaching and Learning, inspires future teachers.

Photographs by
Robert Hubner

SEX, FOOD, & DEATH



REMEMBER THAT NOTORIOUS SCENE from *Alien*? You know the one. But instead of just one alien organism bursting out of its host, picture hundreds, even thousands. That's what happens when *Copidosoma floridanum* wasps mature, says Laura Corley, assistant professor of entomology. Admittedly, the bursting out is a bit less dramatic than in the movie, for the wasps' caterpillar host is nothing but a dried out husk when they exit.

Corley studies *C. floridanum* because of its "fascinating biology." Female *C. floridanum* lay up to 40 individual eggs, and each of those eggs develops into between 900 and 3,000 offspring. The offspring of any one egg will be either of two distinct castes—an asexual soldier or a sexual reproductive—even though all offspring share the same genes and the same environment during development, she says. And at least during the early part of the developmental cycle, some of the wasp larvae can switch castes in response to their environment.

"I want to know the 'how' for all of this," says Corley. While there are a handful of other insect species in which one egg develops into more than one offspring, they usually average just eight to 40 offspring per egg.

C. floridanum are parasitoid wasps. They dine on their hosts' fluids and tissue as larvae, pupate inside them, and leave. Their growth, proliferation, and development are synchronized with that of the host, which goes about its business while the wasp egg inside it proliferates. Eventually the wasp larvae consume the entire caterpillar, and its insides become dry enough for them to pupate within.

Corley currently is taking two research approaches to determine the "how." She manipulates the host-parasitoid system in order to find the signals that enable an egg to respond to its environment. This work already has shown that while 4 percent of the offspring from one egg usually develop into soldiers, up to 24 percent may become soldiers when there is competition from another parasitoid species.

She also is looking at two interesting genes from *Drosophila*, or fruit flies. One is involved in over-proliferation and the other, in the production of eggs and sperm. The former obviously applies to *C. floridanum*, the latter is something only its reproductive caste does.

The *C. floridanum* wasp is relatively simple as parasitoids go, says Corley. While not a useful biocontrol agent, as many parasitoids are, it provides a system for acquiring knowledge that should help with work on the more complex and potentially useful parasitoids. ■

—Mary Aegerter

Six Join Hall of Fame

When opportunity
knocked, they answered.
Their athletic prowess
overshadowed that of
their peers. And their
accomplishments have
stood the test of time.

As a result, five men and one woman were inducted into the Washington State University Athletic Hall of Fame in March. Drew Bledsoe, John Chaplin, Jason Hanson, John Olerud, Bob Robertson, and Sarah Silvernail join 99 athletes, coaches, and administrators enshrined since the hall was created in 1978.

Here's what Cougar colleagues have to say about the new honorees:

"When I made up the lineup, I always put Ole [John Olerud] in the third spot—where you want your best all-around player—and filled in around him," former baseball coach Bobo Brayton says of his first baseman/pitcher. As a sophomore in 1988, Ole set school single-season records for home runs (23), batting average (.464), and pitching (15-0).

"He led the world in everything," says Brayton. On the rare occasion when Ole faltered a little on the mound, Bobo would visit the big lefthander with words of advice: "Remember you are John Olerud. There's no one better." He was named national College Player of the Year in 1988.

After his junior year, Olerud signed with Toronto in 1989 and went directly to the

major leagues. He helped the Blue Jays win back-to-back World Series and won the 1993 American League batting title (.363). After two years with the New York Mets, he returned to his native Seattle and the Mariners, where he was a member of the 2001 All-Star team. His father, John Olerud, an All-America catcher in 1965, was inducted into the WSU hall of fame in 1986.

Cougar football coach Mike Price calls former quarterback Drew Bledsoe and kicker Jason Hanson "the best players at their positions WSU has ever had."

Bledsoe earned All-America honors after arriving from Walla Walla and directing WSU to a 1992 Copper Bowl victory. He finished his three-year collegiate career with 7,373 passing yards, 532 completions in 979 attempts, and 46 touchdown passes. Drafted by the New England Patriots in 1993, he became at 22 the youngest quarterback in NFL history to play in the Pro Bowl.

"Drew's the total package. He always has been. He always will be," says Price, in reference to Bledsoe's athletic ability, character, leadership, and deportment on and off the field. "The same could be said about Jason Hanson."

Hanson, who comes from Spokane, was a three-time All-America selection as a punter/kicker and three-time Academic All-America between 1988 and 1991. He made 63 of 96 field goal attempts, including 19 of 30 from 50-59 yards at WSU. His 62-yard field goal against UNLV is the longest in NCAA history without a kicking tee.

"When he's hot, no one can kick better or farther," Price says.

Drafted by Detroit in 1992, Hanson led the Lions in scoring for nine consecutive years into 2001.

John Chaplin came to WSU from Los

Angeles and set world indoor records in the 220- (22.1) and 330- (33.4) yard dashes. The 1963 team captain returned to the University in 1968 as cross country coach and added head-track-and-field-coach duties in 1973. The Cougars went undefeated in dual meets nine seasons en route to a 202-15 record during his 21-year tenure. WSU won four Pac-10 outdoor championships, was NCAA runner-up four times outdoors, and claimed the 1977 NCAA indoor championship. Chaplin's athletes earned 105 All-America certificates and 61 conference titles.

"John Chaplin put Washington State track and field on the map," says current coach Rick Sloan. In 2000, Chaplin coached the USA men's track and field team in the Olympic Games in Sydney.

Sarah Silvernail, the fifth woman to be selected to the hall of fame, had "the greatest impact on the volleyball program of any player we've ever had," coach Cindy Fredrick says of the two-time All-America. The 1996 Pac-10 Player of the Year "completely dominated teams. She could take over a match."

Silvernail's WSU records for career kills (1,848), single-season kills (649), and most kills in a match (39) still stand.

The Fife High School graduate was a member of the 1997 USA National Team. She played with Chicago in the U.S. Professional Volleyball league and recently played professionally in Switzerland.

Last fall Bob Robertson completed his 35th season as play-by-play announcer of WSU football games. He began broadcasting Cougar sports in 1964. After a three-year absence, he returned permanently in 1972 as "voice of the Cougars" in football. He also broadcast men's basketball until 1993.

SPORTS

JOHN CHAPLIN



JOHN OLERUD

DREW BLEDSOE



JASON HANSON



SARAH SILVERNAIL

BOB ROBERTSON

"There isn't much Bob hasn't seen in Cougar football or, for that matter, basketball," says sports information director Rod Commons. "He's the consummate professional in doing his homework and the way he treats people."

Robertson has broadcast Notre Dame football and basketball (1972-82), Pacific Coast League baseball (1984-98), North American Soccer League action (1972-82), and Spokane Indian baseball (1999-present). He has been voted Sportscaster of the Year in Washington 15 times. ■

—Pat Caraher

JOHN CHAPLIN PHOTO COURTESY OF LARRY REISNOUER, SPOKESMAN-REVIEW; DREW BLEDSOE PHOTO COURTESY OF NEW ENGLAND PATRIOTS; JASON HANSON PHOTO COURTESY OF DETROIT LIONS; BOB ROBERTSON PHOTO COURTESY OF WSU; SARAH SILVERNAIL PHOTO BY SHELLY HANKS, WSU PHOTO SERVICES; JOHN OLERUD PHOTO COURTESY OF SEATTLE MARINERS.

"ADAPT, IMPROVISE, OVERCOME"

"They know the war on terrorism won't go away, even when we finish in Afghanistan."

—Lt. Col. James M. Zuba

A FOUR-BY-TWO-FOOT MAP of Asia is tacked to a wall of Army Lt. Col. James M. Zuba's office. Forty-five blue dots designate locations in Vietnam, Laos, and Cambodia where his infantry unit spent 36 months from 1992 to 1995 searching for U.S. MIAs and POWs.

Earlier, he commanded rifle companies for seven months in Desert Shield/Desert Storm. Now he is completing his 18th year in the Army, and his first as professor and chair of military science at Washington State University. He and his six-man cadre are preparing 150 Army ROTC cadets to become leaders.

In January 2002 the bespectacled lieutenant colonel talked about the 18 WSU cadets scheduled to be commissioned as second lieutenants in May. Their lives will change, he said. Even before the events of

September 11, he saw them mature. They are willing to listen, and they can grasp concepts without needing assignments spelled out in detail. They are learning to "adapt, improvise, and overcome."

"Their lives may depend on it," Zuba said. "They know the war on terrorism won't go away, even when we finish in Afghanistan."

Victoria Renfro, a senior in political science and philosophy, is WSU battalion commander. Military intelligence is her first choice of assignments. She wants the Army to send her to law school. Some day she'd like to work in the Judge Advocate General Corps.

"This is the best opportunity for me to see and know what's out there in the world," she says of her options.

Travis Brashers is a fourth-year cadet with close-cropped hair. His

mother, Katherine Lyon Brashers ('78 Hist.), was one of the first women to receive a commission through Army ROTC at WSU.

"You grow up real fast in the military. You have millions of dollars worth of equipment you are responsible for," says the 2002 graduate in finance.

Interest in Army ROTC peaked nationally in 1967 with more than 177,400 cadets enrolled in 413 programs. By 2000, enrollment had declined to 28,740 in 269 programs.

"Enlistments [in the military] always seem to go up during war time," Zuba says. "There is a propensity to serve [the country]." He cites a 2001 Gallup poll that ranked the military as the no. 1 organization in the United States in terms of values and professionalism.

Whether that will translate into

increased numbers in ROTC remains to be seen. All branches of ROTC now offer attractive financial incentives. A program introduced in fall 2000 provides benefits to Army and Air National Guard members attending WSU, including those taking courses available via the University's Extended Degree Program.

Nationally, Army ROTC's mission is to commission 3,500 second lieutenants this year. Based on enrollment, WSU is on track to make its quota of 20 to 22 new officers in May 2003. Zuba expects WSU to "overproduce" in 2004 and 2005 with 25 to 30 officers the first year, and more than 30 thereafter. Attaining those goals depends to a great extent on the type of students WSU recruits.

"We've always had intelligent students," says Zuba, pointing to the 3.30 average gpa achieved by fourth-year cadets fall semester. He and the cadre visit with faculty and students to spread the word about ROTC benefits, opportunities, and even military careers. Professors in political science, criminal justice, nursing, sociology, English, and biology have invited cadre into their classes. In fact, Capt. Dan Duncan accepted a challenge to give a "persuasive" talk on ROTC in a speech class.

In 2001, WSU Army ROTC was ranked 131st nationally, based on enrollment, academic achievement, and programs. Zuba's goal is to be in the top 75 by 2003, and in the elite 25 the following year.

Can it be done? "You bet," he says without hesitation. ■

—Pat Caraher

Victoria Renfro, cadet battalion commander, practices rappelling in Hollingbery Fieldhouse.



What does Pim-1 really do?

Although science has made much progress in understanding why cancer occurs—smoking, diet, environmental pollutants, viruses—the mechanisms of cancer are still elusive. Nancy Magnuson, of the School of Molecular Biosciences, has been studying an enigmatic gene called Pim-1 since 1988.

How big a deal is Pim-1?

Magnuson believes that Pim-1 is probably involved in most carcinomas, the most common cancers. Carcinomas arise from epithelial tissues, such as skin and the linings of body cavities, and glandular tissues such as the breast and prostate gland.

So does Pim-1 cause cancer?

No, says Magnuson. Rather, in combination with other factors, it seems to *predispose* cells to cancer.

What exactly is cancer? No, that's not a dumb question. There is no one disease called "cancer." But in general, cancer is the new growth of tissue that results from rapid and uncontrolled production of abnormal cells. And we're far from understanding exactly how it occurs.

How does a normal cell become cancerous?

One does not just come down with cancer, says Magnuson. Rather, cancer seems to be a complex process that may stretch over years. There probably is no single cause. A chance mutation in a cell may in turn cause increased expression of proteins by other genes that stimulate growth in yet more genes. As the cells increase in number, so does the chance for mutation. So cancer is the sum of many events.

The questions I would most like to know the answers to are, "What is the normal function of the proto-oncogene called Pim-1, and how does Pim-1's function contribute to the production of cancer?"

Although Pim-1 has long been known to be involved in cancer production, it has never been demonstrated how this occurs. Importantly, Pim-1 is only found in certain types of cells, and these are the cells that most often become cancerous as individuals grow older. Pim-1 protein is found at high levels in these cells, and we think that this is most likely a normal situation. Furthermore, there is compelling evidence—but not proof—that the normal function of Pim-1 is to promote cell survival. In general, this is an important and healthy function. However, when a cell undergoes a mutation, for example from an environmental carcinogen, the presence of Pim-1 may inadvertently protect the mutated cell from dying by a pathway designed to delete defective cells. Because the defective cell is able to survive, it continues to pick up further mutations over time and grows more and more out of control. And we know that accumulation of mutations leads to the generation of lethal metastatic cancer.

—Nancy Magnuson
Microbiology, Molecular Biosciences

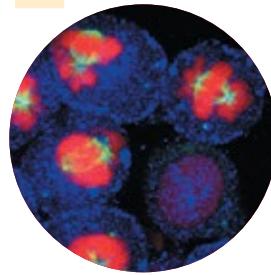
Why does Pim-1 turn bad?

It doesn't really. It seems to just be doing its job of helping cells survive. And it seems that the gene does not distinguish between good and bad, or normal and cancerous, cells. In fact, Magnuson believes that Pim-1 normally inhibits apoptosis, or programmed cell death, through which the potentially lethal cell would die once its usefulness had passed. Inhibiting apoptosis in a cancerous cell, obviously, is not good.

With hundreds of millions of dollars spent fighting cancer, why hasn't anyone come up with a magic bullet?

Mainly because there is no convenient target, says Magnuson. Cancer is not like a cavity. You can't just pull the cancerous tooth. Cancer is a process. In fact, often when cancer is targeted locally, it comes back later with a vengeance. As bacteria develop resistance to antibiotics, so malignant cells can adapt and become tougher.

Take-home message: Although there is no simple cure on the research horizon, scientists have made impressive progress in understanding a class of diseases that is far more complicated than anyone imagined even a few years ago.



◆ REAL ESTATE ◆

Washington sets a record for HOME SALES

THANKS TO affordable mortgage rates that offset economic uncertainty and job cutbacks, Washington's resale housing market set a sales record in 2001, according to statistics released by the Washington Center for Real Estate Research (WCRER) at Washington State University.

"About 125,000 homes were sold last year, 5,000 more than in 1999, the previous record," says Glenn Crellin, WCRER director. The median price for an existing home in Washington was \$178,200 during the quarter, 0.5 percent higher than in 2000. King County had the highest median price (\$260,000), Pacific County the lowest (\$77,000).

The recession notwithstanding, slower increases in prices, low mortgage rates, and continued increases in incomes resulted in a surge in housing affordability. The housing affordability index, which measures the ability of a middle-income family to purchase a median-price home with a 20-percent down payment on a 30-year mortgage at prevailing interest rates, reached 135.1. That means a typical family could afford to purchase a home priced 35 percent higher than the median. During the quarter, housing was rated as affordable in every county except Jefferson.

Data for homes in 34 of Washington's 39 counties can be found on the WCRER Web site at www.cbe.wsu.edu/~wcrer/. ■



SALLY HACKER

AN ENGLISH IMPORT

A classic case of good intention gone bad,

English cordgrass (*Spartina anglica*) was introduced to Washington around 1962 to stabilize dikes and provide forage for cattle. The U.S. Department of Agriculture imported seeds from England, and a Washington State University extension agent planted the seeds near Stanwood in the Stillaguamish Estuary.

English cordgrass has since infested large areas around Stanwood, particularly Port Susan Bay, Skagit Bay, Admiralty Inlet, and Saratoga Passage. It has also spread, with disastrous environmental effect, to other parts of Puget Sound, including Camano Island, Whidbey Island, and the San Juan Islands.

Due to its tenacity, its rapid growth rate, and its ability to spread via seeds and fragments, cordgrass has been very difficult to control. Despite nearly a million dollars and four years of effort, English cordgrass in Puget Sound has been reduced by only about 13 percent. WSU biologist Sally Hacker and graduate students Eric Hellquist and Tabitha Reeder are working with state personnel and county weed control crews to refine the focus of control efforts and gather data on cordgrass invasions. Funding for their research comes from the National Sea Grant Program with help from the Washington Sea Grant Program. In addition, Hellquist's work has been supported by the National Estuarine Research Reserve System, Betty W. Higinbotham Trust, and WSU College of Sciences.

Because the extent of English cordgrass invasion in Washington was not known, Hacker, Hellquist, and University of Washington scientist Megan Dethier conducted surveys and analyzed data from the Washington State Department of Fish and Wildlife and Washington State Department of Agriculture. They found that English cordgrass has invaded 73 sites covering some 3,300 hectares, occurring primarily in mudflats and low-salinity marshes.

As cordgrass spreads, it converts salt marshes and open mudflats into dense cordgrass monocultures that do not offer the types of food and living conditions needed by oysters, clams, worms, and microcrustaceans. The loss of these species affects others in the food chain such as birds and fish. Additionally, floating mats of dead cordgrass can smother some plants and animals.

"This species is amazing," says Hacker, "because it can invade four very different habitats."

Because of environmental and commercial effects of English cordgrass

invasion, state and county agencies began removing some of the thick mats and widely dispersed propagules in 1997. Removal is a labor-intensive process of digging small clumps or mowing and applying herbicide to large clumps. The large clumps are very tenacious, and in order to kill them, workers must mow and spray repeatedly for about five years.

Each WSU researcher is tackling specific questions about the invasion. Hacker's research targets factors that influence invasive success and effectiveness of control efforts.

Reeder maintains framed plots to learn how much the cordgrass has grown in the past year. Some of her plots have been previously treated to remove cordgrass. Her data so far show that one or two years of treatment only slightly reduces regrowth. However, if the dead thatch, called wrack,

is anchored in place, it reduces canopy regrowth by 50 percent and eliminates new flowers and seeds. At the Padilla Bay National Estuarine Research Reserve, where the reserve staff has to control *Spartina* each year, Hellquist is assessing soil and habitat characteristics. At other sites around the sound, he is investigating how English cordgrass interacts with native vegetation and how native vegetation returns to areas where cordgrass has been removed. Hellquist also works with School of Biological Sciences faculty member Ray Lee and graduate student Brian Maricle to quantify levels of sulfide, a naturally occurring soil toxin. *Spartina* can grow in physical conditions that are considered harsh even for intertidal plants, and they would like to understand the range of conditions it inhabits.

Lee and Maricle are also studying a relative of English cordgrass that has invaded in Puget Sound and in Willapa Bay and Gray's Harbor on the coast.

Smooth cordgrass (*S. alterniflora*) was introduced accidentally by the oyster industry in Willapa Bay and is a serious threat.

Smooth cordgrass has an interesting connection to English cordgrass. From its native habitat in eastern North America, it was introduced to England, where it hybridized with a native species, small cordgrass (*S. maritima*). About 1892, this infertile hybrid underwent a natural process in which its chromosome number doubled and it became a fertile species, English cordgrass (*S. anglica*). This new species quickly spread across nearby marshes and currently covers about 10,000 hectares in England.

Upcoming studies will focus on seed production hotspots and effects of timing of herbicide application on seed production. "The resource managers and field crews are working very hard," says Hacker, "but this will require a long, concerted effort—we're battling a difficult invader."

—Lynn Kinter



Who you gonna call? Cordgrass busters
Tabitha Reeder and Sally Hacker.

INVADES PUGET SOUND

Forcing students to think critically

RATHER THAN BEING “the expert” in the classroom, animal scientist John McNamara wants to shift that role to his students. Those in his non-ruminant nutrition course at Washington State University are expected to develop an “expert system” with computer program application. They must gather information in his and other classes, from the library, and on-line. Then they must put the material together in a logical system and teach it to someone else.

The students learn by creating their own data base of information and by sharing their resources with others.

“The fun part for me, and the hard part for them, is that it forces them to be correct. If they’re not

correct, the expert system doesn’t work,” says McNamara. Last fall, he was named the state Science Teacher of the Year in higher education for 2001 by the Washington Science Teachers Association. He has been teaching at WSU for 18 years.

Science isn’t complicated if students start using the scientific method early, he says. He asks them to make observations, provide a hypothesis, and test it by literature research experiments. More observations follow, and more interpretations.

McNamara, who also teaches pet nutrition among other courses, spends 55 percent of his time in research, which enhances his teaching. He believes the ideal learning situation is to have an

active researcher active in the classroom. “We’ve got the day-to-day activity in science and research and can bring that to our students and involve them in it.”

Aubrey Schaeffer, a senior from Bothell who is advisor to students working with the University dairy herd, aspires to be a veterinarian. She has taken a number of McNamara’s courses.

“He knows nutrition,” she says. “He forces students to problem-solve using the knowledge he gives us and what other professors have taught us over the years. He’s the one who puts together all the pieces of our education in the animal sciences department.”

In the non-ruminant nutrition course, Schaeffer identified characteristics of plants toxic to horses

and matched them with symptoms horses displayed after eating the plants. The task was “pretty complex” she says, but now a valuable resource is available for horse owners to tap.

Classmate Erin Marinan of Everett created a dog vitamin advisory program, taking into consideration the animals’ size, sex, and age and 14 options for the use of Vitamins A, B, and D.

“Dr. McNamara wants you to take everything you know and figure out the solution on your own,” says Silverdale senior Barbara Zawlocki. “Sometimes it is frustrating, but it helps you develop your own critical thinking skills.”

Her project was devoted to weight management of horses.

As an undergrad and graduate student at the University of Illinois, McNamara had the good fortune to work in the laboratory of Professor Dale Bauman, an authority on nutrition. From Bauman, he learned much about the teaching methods he now uses in his own classes at WSU.

“He’s a great scientist, a great teacher,” he says of Bauman, now a member of the National Academy of Sciences.

McNamara’s best students today are better than ever, he says. They are getting more advanced science in high school. They are willing to work hard and try new things.

“The challenge is that most students don’t have a lot of experience. They don’t have to work like we did, or they didn’t grow up on a farm. It’s hard for them to put science into a practical context,” he says.

“That’s what I try to help them with.” ■

—Pat Caraher

“Dr. McNamara wants you to take everything you know and figure out the solution on your own.”

—Barbara Zawlocki

John McNamara was named Washington Science Teacher of the Year in higher education in 2001. Two of his students are Andrew Bishop and Jane Nall.



ROBERT HUBNER

College of Nursing ...committed to inspiring and transforming health care for generations to come.

Transforming...

National Nurses' Week **May 6th through May 12, 2002**

In January 1974, the International Council of Nurses proclaimed May 12th, the birthday of the founder of modern nursing, Florence Nightingale, as "International Nurse Day." President Ronald Reagan, in 1982, signed a proclamation declaring "National Recognition Day for Nurses" to be May 6th. More recently, this celebration has been expanded to a week-long series of events honoring the work of America's 2.6 million registered nurses.

National Nurses' Week is devoted to highlighting the diverse ways in which registered nurses, the largest health care profession, are working to improve health care. From bedside nursing in hospitals and long-term care facilities to the halls of research institutions, state legislatures, and Congress, the depth and breadth of the nursing profession is meeting the escalating health care needs of American society. The **Washington State University College of Nursing** is very proud to have graduated more than 6,000 of these professionals.



Nurses are leading the transformation of health care. Research-based knowledge is the cornerstone of both nursing curricula and practice. The benefits of nursing research are far reaching, from improving the health of all people to informing health policy decisions. Nurse scientists are recognized as pioneers and leaders in many areas of research including access to health care, health outcomes, women's health, disease and symptom management, quality of life, and family health.

The goal of nursing research at **Washington State University College of Nursing** is to improve the health of the people of the region and the state, if not the nation and the world. Our nursing research is conducted in community clinics, hospitals, laboratories, grade schools, summer camps, and cancer centers. Research faculty at the main campus in Spokane, and in Vancouver and Yakima, work collaboratively with local and regional university faculty and clinicians. Our research involves partnerships with WSU faculty in Clinical Pharmacy, Human Nutrition, and Physiology. Collaborations with the private sector include Eastern State Hospital at Medical Lake, Sacred Heart Cancer and Research Center, Spokane Visiting Nurses Association, The Heart Institute of Spokane, Southwest Washington Regional Health District in Vancouver, and the Fred Hutchinson Cancer Research Center.

Nursing research will drive all facets of practice, nursing education, and health policy decision making in the years ahead. As the largest group of health care professionals, nurses are exploring their own practice, identifying superior outcomes of holistic care, and documenting the ways nurses make a difference in the lives of people. Our challenge is to design and test research-based theories of nursing that embrace the best traditions of the art of nursing and give voice to the science underpinning the profession.



World Class. Face to Face.

IS NOTHING



SACRED?

by Mary Aegerter • Photography by Robert Hubner

What

We Thought

We Knew About

PHOTOSYNTHESIS

Was Wrong

YOU'VE PROBABLY NEVER HEARD of them. Not even discovered until the 1960s, C₄ plants have been found in just 18 of the 500-odd families of vascular plants. They make up only about 10,000 of the approximately 300,000 species of terrestrial plants. But because they are so good at photosynthesis under adverse conditions, they represent 30 percent of the world's terrestrial plant productivity. Many of the world's worst weeds are C₄.

Elena Voznesenskaya, Vince Franceschi, and Gerry Edwards have discovered an idiosyncratic plant that may guide the way to increasing photosynthetic productivity.

Photosynthesis is the mechanism by which plants use light energy to convert water and atmospheric carbon dioxide (CO₂) into organic plant matter and oxygen. Plants that use C₄ photosynthesis are much more efficient at using atmospheric CO₂ and are more productive—up to 40 percent better at both.

In addition, they are particularly successful in growing conditions of intense light, warm climate, drought, and high soil salt content.

Unfortunately, most crop species use a less efficient form of photosynthesis called C₃. Among major crop species, only maize, millet, sorghum, and sugar cane are C₄. If more crop species could be persuaded to perform like C₄, feeding a burgeoning world population would be considerably simpler—and a great deal of research has gone into trying to do so, though without much success. Now Gerry Edwards and Vince Franceschi may have made this task simpler.

Recent work by the two Washington State University School of Biological Sciences researchers and their colleagues will force botanists to reexamine what has long been thought mandatory for C₄ photosynthesis. Not only does their work have implications for genetic engineering, it revises our understanding

of how plants organize functions within their cells and of the evolution of photosynthetic mechanisms. When you upset a scientific paradigm, you expect a reaction, and that's exactly what Edwards and Franceschi have gotten. As one expert in their field wrote, "Is nothing sacred?"

Over the years, Edwards's research has helped to explain the mechanism of C₄ photosynthesis, and Franceschi has used antibodies and cell biology to probe the relationship between C₄ plant structure and function. The two have been colleagues for 20 years.

Until Edwards and Franceschi put their talents together on C₄, it was considered dogma that plants using C₄ photosynthesis always contained a specialized cellular organization known as "Kranz anatomy." The name "Kranz," German for "wreath," was applied in 1884, long before C₄ photosynthesis was discovered. It was given to the distinctive arrangement of cells seen in some species of grasses by G. Haberlandt, a German plant anatomist. Kranz anatomy is characterized by two cells that sit side by side in the leaf. One cell traps atmospheric CO₂, then shuttles it to another cell, where it is concentrated and incorporated into plant matter.

Separation of the two parts of C₄ photosynthesis is considered critical for the system to operate at maximum efficiency.

"It was spelled out in concrete that for C₄ photosynthesis to occur in higher plants you have to have this dual cell system referred to as Kranz anatomy," says Franceschi. Kranz often was used

C₄ plants



IS NOTHING SACRED?

C₄ plants

If more crop species could be persuaded to perform like C₄,

as an example of the tight association between structure and function.

But then Edwards and Franceschi ran across *Borszczowia aralocaspica*, which performs C₄ photosynthesis within a single cell—without Kranz anatomy. Within that one cell, spatial separation of functions takes place just as it does in the two cell types in plants with Kranz anatomy. Most important, *B. aralocaspica*'s photosynthesis is as efficient as that of Kranz plants.

But the Kranz dogma is so strong that the two scientists at first thought that what they saw in *B. aralocaspica* was an oddity of the plant's development. Because its one cell looks like that of the two Kranz cells without the cell wall that separates them, Franceschi and collaborator Elena V. Voznesenskaya looked at specimens from throughout the plant's developmental cycle to be certain that such a cell wall hadn't disappeared during maturation.

B. aralocaspica's unusual anatomy was first detected by German scientist Helmut Freitag. Freitag had studied its genealogical family, the *Chenopodiaceae*, for some time. His paper on *B. aralocaspica*'s anatomy caught the attention of Edwards and Franceschi, who also thought its anatomy looked unusual. It didn't look like either a C₃ or a C₄ plant, but rather like something between the two, says Franceschi. He and Edwards set out to determine what kind of photosynthesis the plant was doing, and where the parts of the photosynthetic system were located. After talking with Freitag, they began a collaboration with him that led to the discovery of the single-cell C₄ photosynthesis.

ABOUT FIVE YEARS AGO Edwards and Franceschi began a research collaboration on photosynthesis with Voznesenskaya and another Russian scientist, the late Vladimir I. Pyankov. That collaboration was initially funded by the Civilian Research Development Foundation (CRDF). CRDF grants come from a pool of federal and private moneys set up after the breakup of the Soviet Union to encourage collaboration between U.S. and Russian scientists. Voznesenskaya is a plant anatomist, and Pyankov was a plant physiologist. Both had worked for years on species that grow in Central Asia. Voznesenskaya returned to WSU several times after the CRDF grants were finished, and the collaboration with Freitag began during her last visit.

Initially the Russian and U.S. scientists worked together to characterize the range of both C₃ and C₄ photosynthesis in the *Chenopodiaceae*. It is an interesting family photosynthetically and shows a high diversity in its evolution of C₄ photosynthesis, says Edwards.

Three distinct biochemical types of C₄ pathways have evolved among the C₄ plants. In addition, C₄ plants exhibit a variety of Kranz anatomies, variations in the arrangement of the two characteristic cells. The *Chenopodiaceae* family contains plants that have five different variations of Kranz anatomy and two of the three C₄ pathways.

These biochemical and anatomical variations indicate that C₄ photosynthesis has evolved multiple times, says Edwards. Current data suggest that it has done so up to 31 separate times, even more than once in some families. In one genus there are so many variations in photosynthetic mechanisms that you feel as if you can see the entire evolutionary process from C₃ to C₄, says Franceschi. "It's like looking at a snapshot in time."

feeding a burgeoning world population would be considerably simpler.

EDWARDS AND FRANCESCHI expect that more C₄ plants without Kranz anatomy will be found. In the past, the quick and easy method for determining whether a plant was C₄ was to look at a cross-section of leaf under a microscope. Obviously that method can no longer be considered completely accurate, and other ways will have to be used to test for C₄ photosynthesis.

The collaboration with Freitag already has turned up a species from the deserts of Central Asia that Edwards and Franceschi have shown also has C₄ photosynthesis without Kranz anatomy. Though it's from the same sub-family as *B. aralocaspica*, its anatomy is distinct. Finding it verifies that *B. aralocaspica* is not just a freak of genetic engineering by nature, says Franceschi.

A good deal of basic science will be done over the next several years to determine just how the *B. aralocaspica* photosynthetic cell operates. These cells contain two types of chloroplasts, something not previously reported, says Edwards. "We need to learn how the cell produces and segregates these chloroplasts."

On the more practical side, it's clear that *B. aralocaspica* changes the whole idea of what's required for C₄ photosynthesis, says Franceschi.

It should be much easier to genetically engineer C₃ plants to perform C₄ photosynthesis if Kranz anatomy isn't necessary. Not easy, just easier.

Because there are C₄ plants without Kranz anatomy, we know there's potential for us to do it, says Edwards.

Adds Franceschi, "Obviously, the plant can do single-celled C₄ photosynthesis if it wants to. We only need to figure out how to do it ourselves." ■



C₄ plants, corn and sorghum.

If RICE Were C₄

THE RECENT WORK OF MAURICE KU, professor in the School of Biological Sciences, and colleague of Edwards and Franceschi, is an important indication of the potential for engineering improved crop performance by introduction of C₄ enzymes. Ku has introduced three C₄ photosynthesis genes from maize, a C₄ plant, into rice, a C₃ plant. When all three are expressed or made into proteins in the rice, he expects those plants to be more photosynthetically efficient.

Ku already has found that when just two of the three genes are expressed, rice plants are up to 35 percent more efficient both in photosynthesis and in grain production. This increase is close to the level of enhanced capacity and productivity of C₄ plants when they are compared to C₃. Work is under way to determine how and where the enzymes are expressed in the rice leaf and how their activities are coordinated to give improved productivity.

For more information on Ku's work, go to <http://www.wsu.edu/NIS/releases3/ts100.htm>



*It's a great art, rowing is.
It's the first art there is.
It's a symphony of motion.
And when you're rowing well,
Why it's nearing perfection—
And when you reach perfection,
You're touching divine.*

—GEORGE POCKOCK
From "Ready All":
George Yeoman Pocock
and Crew Racing,
by Gordon Newell



THE pull OF

tHE SLIM, 60-FOOT RACING SHELL glides seemingly without effort against a backdrop of steep basalt cliffs. Eight women, each pulling on a 12-and-a-half-foot oar, provide the power. The rowers sit one behind another in individual seats that roll on tracks. In unison they reach forward and pull back, using their legs for leverage. Facing them in the boat's narrow stem, the coxswain barks the cadence.

"Lock . . . send" and "power ten, on this one."

Given its landlocked location, people are surprised that Washington State University has an intercollegiate women's rowing program. Once a club sport, it was elevated to varsity status in 1990 as part of Title IX gender-equity legislation.

WSU rows on the Snake River, a few miles upriver from Lower Granite Dam. The 2000-meter course, shell house, and docks are at Wawawai Landing on the river's north side. At this point, the river is one-half mile wide.

In more than 20 years as a rower and coach at WSU, Tammy Crawford hasn't found a more scenic place to row. The river is undisturbed except for the occasional steelhead fisherman. "We have it all to ourselves," she says. "It's one of the best kept secrets."

The isolated setting offers few distractions aside from nature itself, says Emily Tribe, a junior rower from Melbourne, Australia. She and 44 teammates make the 16-mile,

25-minute commute from Pullman in three vans, the last leg winding down Wawawai Canyon.

The sport "selects people out," Crawford says. Rowers are competitive individuals willing to challenge themselves and others athletically. They are stable, dedicated, and smart, as the varsity's 3.10 grade-point average last year shows.

Limited to 156 days of rowing by the NCAA, WSU competes in the fall and spring. The winter focus is on conditioning on campus.

Only 5 percent of the team rowed before college. The experiences of the others include the traditional high school sports, as well as water polo, rugby, hockey, netball,



ROWING

BY PAT CARAHER
Photography by Robert Hubner



canoe paddling, even rodeo. Twenty-seven of the rowers are Washingtonians. Some, like Tribe, are international, from Canada, England, Slovakia, and Sweden.

As they disembark from the vans, one is struck by their fitness and height—5-foot-9 on average. After a half-mile jog down the road paralleling the river, they stretch and bend in a circle in front of the shell house as Crawford reads the day's schedule aloud. Then they are on the water. The coach trails them in a power launch, a blow horn to her mouth. "Square your shoulders . . . row your blade into the water, not away from it . . ."

Because rowing is more timing and rhythm than just strength, top athletes sometimes become frustrated, says Craw-

ford. They want success early. They must learn to be patient and accountable to their teammates. The hardest thing for Crawford to teach her rowers is that they have more to give mentally and physically.

She places the most powerful rowers in the 4, 5, and 6 seats, the middle of the shell, "the engine room." The rower in the "stroke," or 8, seat—closest to the coxswain—has to be a racer, mature, not one to panic. Number 7 helps set the pace and

Above: Varsity Four rowers Debbie Curry, Beth Winsper, Anna Lazarova, and Pam Foley rise to the challenge of rowing.

Right, from top: Rowers Emily Tribe, Jamie Orth, Carolyn Oury, Catherine Lortie, Dorothea Hunter



Members of the rowing team prepare to lower a shell into the water.

THE *pull* OF ROWING

rhythm. Skilled, smooth rowers occupy seats 1, 2, and 3. They compensate for their smaller stature with finesse. The coxswain, “the director of the orchestra,” carries a huge responsibility. She must get the boat to the starting line on time, execute the race strategy, and steer a straight line.

On race days, Crawford stays on shore, waiting at the finish line. She entrusts the shell to coxswains like Tricia Goodell. Asked about race strategy, the 5-foot-3 former soccer player draws a line down the center of a piece of paper to illustrate 2,000 meters. She adds hash marks at 500-meter intervals.

“The first 100 meters are intense. The adrenaline is rushing,” she explains. The rowers pry the shell away from a standing position with five short, sharp strokes as they try to jump out ahead of the other shells. As their craft begins to move, they increase the number of strokes taken each minute to 40 or more. The next two minutes are like a sprint. Then the team settles into a rhythmic, but demanding, pace of 33 strokes per minute for the “body” of the race.

Near the halfway mark, Goodell calls for “a flutter.” The rowers pick up the tempo. Around 1,500 meters, they do the “Washing-

ton State Cougs” spell-out—20 intense strokes, heading into the final 300-meter sprint. At top speed, the shell is moving at around 42 strokes per minute. The rowers want to come across the finish line as powerful as possible.

Rowing is a gutsy sport. Midway through the race the rowers hurt like hell. They push on. Six-and-a-half minutes can be an eternity.

“By the end of the race, you’re spent,” Tribe says. “If you win, you’re still exhausted, but you don’t feel the pain as much.” ■



From top: Coach Tammy Crawford takes a break with Maddie.

Gunilla Grafnings with teammates in Varsity Eight boat.

Rowers warm themselves between races with Gonzaga University during March 23 Fawley Cup on the Snake River.

Coxswain Erin Walker, Patti Hoelzle, Jamie Pearsall, and Garlena Tavai-Fiatoa are members of WSU's novice crew team.

Right: A shell glides serenely toward open water in the soft light of afternoon.



"We have it all to ourselves."



PANTS THAT FIT...

In search of a

Maybe you're always the same size—

THIS IS A TRUE STORY.

A woman walks into an American department store to buy a pair of slacks for a business trip. She sees a cute pair of pinstriped slacks as she's walking by the Juniors department. She tries several pairs on but becomes frustrated as she discovers the sizes she used to wear are all too small. She leaves the dressing room pledging to exercise more. She walks by the Sportswear department and spots a pair of plaid pants. She tries them on, fits into yet a different size, and passes on the plaids. Moving on, she rounds the corner to the Women's department and sees a pair of classic gabardines. Sure, the styles are a bit stodgier in this department, but she fits into a size smaller than she wore a decade ago. Gabardine it is.

Left: Posture indicators like pelvic tilt and spine curvature are rarely factored into clothing designs. Apparel, Merchandising, and Textiles student Jessica Kuper demonstrates.

Far right: AMT student Jessica Hill adjusts Carol Salusso's pants, the piece of the wardrobe that most people, especially women, report finding most difficult to fit.

Photographs by Robert Hubner

Andrea Vogt wrote about "Nurses to the Homeless" in the Spring 2002 Washington State Magazine. She splits her life between Pullman and Bologna, Italy.

cure for misfits

by Andrea Vogt

in every store, in every clothing line, in every brand. If so, you're a minority.

Her size? Somewhere between 6 and 12, depending on the style, the department, the store.

Maybe this has never happened to you. Maybe you're always the same size—in every store, in every clothing line, in every brand. If so, you're a minority. The rest of us spend a fair amount of time in America's dressing rooms wondering “what size am I really?”

Of course, men have trouble finding pants that fit, too. But at least when a man shops for pants, the apparel industry gives him crucial information: his measurements.

In fact, inseam and waistline measurements that appear on the labels of menswear have prompted many a woman to shop in men's departments. There, at least you can find specific measurements rather than irrelevant numbers like 6 or 8 or 10 or subjective words like small, medium, and large.

So why won't the American apparel industry get a clue? Consumers know all too well there's a lot more to a body than small, medium, and large. Why don't American clothing sizes reflect that more?

“Women have for generations allowed the apparel industry to sell optical illusions with sizing that means nothing and [with] the notion that if their clothes don't fit, their body is wrong,” says Washington State University apparel design professor Carol Salusso. “It's blame the body. Blame the consumer. Blame yourself. What a sad cultural commentary.”

Though you wouldn't know it by the tags on your clothes, Salusso's research

shows there are 15 commonly occurring body types for women and 12 for men. She's also discovered that one of the main determining factors for good clothing fit is posture. Yet posture indicators like pelvic tilt—the slope that extends from the small of the back to the curve of the buttocks—and spine curvature are rarely factored into patterns, designs, and sizes.

In one national study of 7,000 women aged 55 and older, Salusso tested a method she developed for apparel sizing while taking body form variations into account. The method classified six frame sizes and five heights. Later, she factored in posture with “slight, medium, or full pelvic tilt” body types, then tested garments sized according to these criteria on her subjects. Ninety



... clothing patterns are usually designed on dress forms that are not shaped like actual people.



PANTS THAT FIT...

"If your body isn't what you want it to be, does it still deserve clothes?"

percent of the women in the study fit successfully into the sizing system.

Unfortunately, the system used today in the United States is not nearly as scientific. The 1958 sizing standard, which was more specific, was revised in the 1970s to reflect fewer sizes and accommodate the flowing fashions of the times.

To make matters worse, clothing patterns are usually designed on dress forms that are not shaped like actual people. The most commonly used dress forms have straight spines instead of S-curved ones, for example, and lack any pelvic tilt, which most humans have. Such body forms are used because it is cheaper than using real people when mass producing clothing.

Even when a live model is used, he or she represents just one size and just one body type. To make sizes smaller or larger, manufacturers use an archaic

process called grading—a technique of shrinking or enlarging—to adjust the pattern. The problem with this sizing method is that it takes a pattern based on a "culturally ideal" dress form—which usually isn't even the size of a full-grown adult—and simply makes it smaller or larger, without changing proportions.

Before the mass production of clothing became common—it emerged in the late 1800s with the mass production of military uniforms for sailors and soldiers—tailors and dressmakers created clothing "tailor made" to the customer. But as clothing became increasingly manufactured on a mass scale, tailors and dressmakers disappeared.

Designers in couture do, of course, nip and tuck their creations to fit each model perfectly. But that kind of personalized fitting is largely saved for the runway and for wealthier customers. In fact, the fashion industry is part of the problem. One reason clothing manufacturers balk at reforming the sizing system is that it's cheaper to have fewer sizes if they expect to keep pace with rapidly changing fashions. Fashion trends once lasted decades. Today, by the time a trend reaches a small-town department store, *Elle* and *Vogue* are already listing it in the "out" column. Even classic lines of clothing are no longer a predictable fit each year.

"They don't want to be terribly committed to the fit," says Salusso, "because they are more committed to the fashion."

Additionally, she says, manufacturers sell more clothes when consumers must guess at vague sizes rather than rely on specific measurements. As a result of this poor sizing, and the time investment necessary for finding a good fit, consumers have grown more willing to tolerate a large amount of "misfit" in their clothing.

"See, look at the space around your shoulders and amount of fabric here," she says, tugging on the baggy sleeves

Right: Apparel design professor Carol Salusso designs pants patterns that allow for individual differences in pelvic tilt, waistline angles, and crotch curves. These patterns accommodate a greater range of fit and range of motion than ready-to-wear pants.



of a suit I bought a few sizes too big so it would be long enough for my tall frame.

"For most people, either you take it to a tailor, you alter it yourself if you have the skills, or 5 percent of the time it fits you well. Mostly, you just put up with it."

Salusso stopped putting up with it long ago. She began sewing her clothes as a child growing up along the Big Hole River in rural Divide, Montana. Like many farm kids in the West, she learned to sew her own clothing from patterns in 4-H.

For her, it was often "an exercise in horrible frustration to use a pattern,



spend the time and money, and then have it look crummy.”

The patterns were made for the tall, thin women on the back of the pattern envelopes. Salusso needed patterns to fit a large chest, but a small hip. “The more I sewed, the more I got frustrated with the fact that the patterns didn’t fit me.”

So she began designing her own. Over the years, she has become fascinated with designing pants, which she considers “the ultimate way of being comfortable and looking good.”

Unfortunately, pants are also the piece of the wardrobe that most people, especially women, report finding most difficult to fit.

In response, Salusso began experimenting with her pants patterns—adjusting them to accommodate different pelvic tilts, waistline angles, and crotch curves. A number of women who tried the pattern wrote her back to say the pants not only fit better, but also improved their range of motion.

Now the specialized pants patterns have developed their own following. Hundreds have contacted Salusso for copies.

In the meantime, Salusso continues to call for changes that introduce “real body proportions and posture” into the industry’s sizing system. Implementing such a sizing system would require ex-

planatory labeling, such as body type hangtags with body measurements indicating the range of fit, much like menswear. Will manufacturers be willing to pick up the tab for extra labeling and more varied inventory? Not so far. But as sizing technology advances, it may become easier for manufacturers to change.

“There’s multiple errors in the system,” Salusso says. “But new computer technology brings new hope.

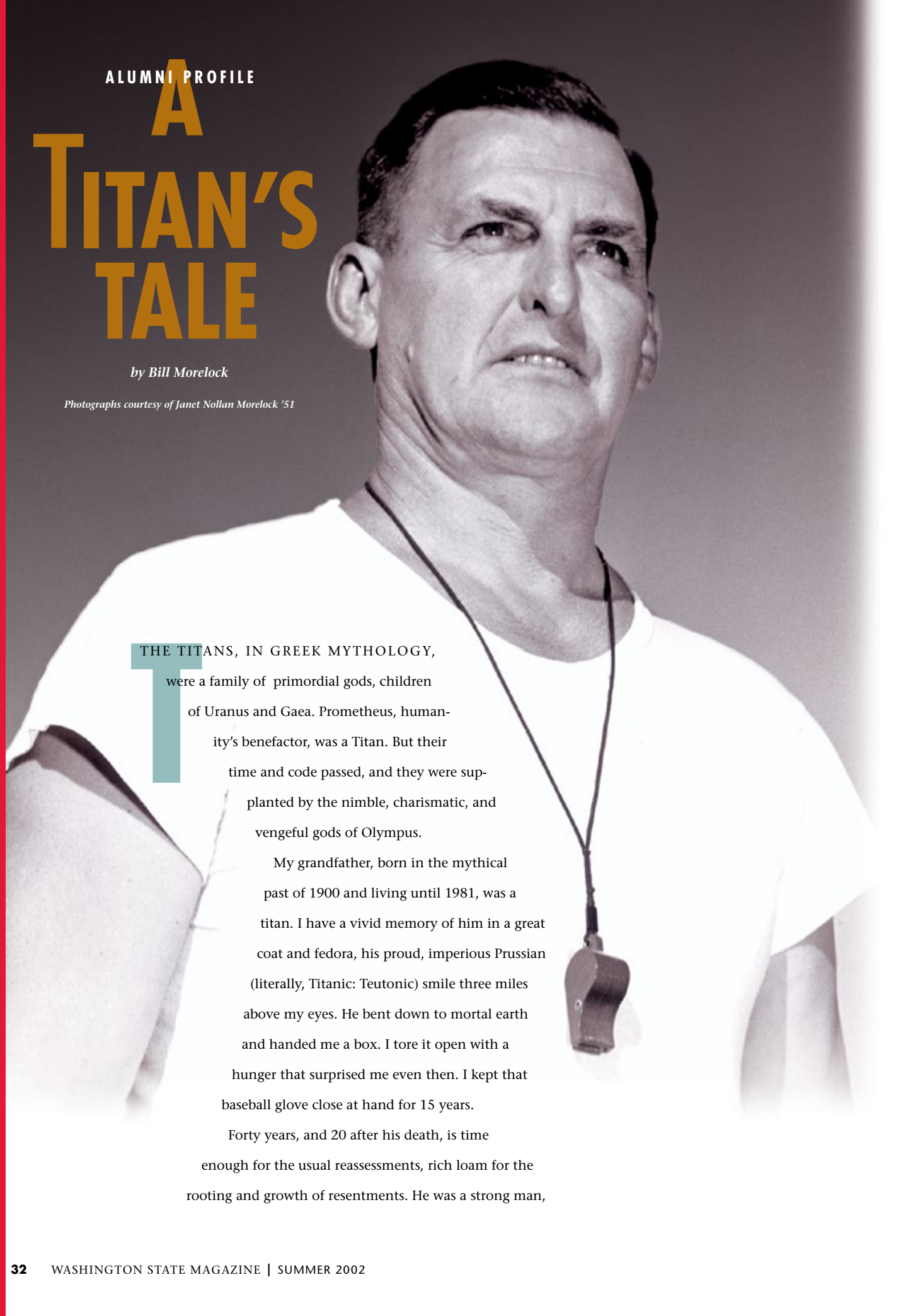
“If your body isn’t what you want it to be, does it still deserve clothes? Industry says ‘no.’ But I say you don’t have to go to your grave with bad fitting pants.” ■

ALUMNI PROFILE

A TITAN'S TALE

by Bill Morelock

Photographs courtesy of Janet Nollan Morelock '51



THE TITANS, IN GREEK MYTHOLOGY, were a family of primordial gods, children of Uranus and Gaea. Prometheus, humanity's benefactor, was a Titan. But their time and code passed, and they were supplanted by the nimble, charismatic, and vengeful gods of Olympus.

My grandfather, born in the mythical past of 1900 and living until 1981, was a titan. I have a vivid memory of him in a great coat and fedora, his proud, imperious Prussian (literally, Titanic: Teutonic) smile three miles above my eyes. He bent down to mortal earth and handed me a box. I tore it open with a hunger that surprised me even then. I kept that baseball glove close at hand for 15 years.

Forty years, and 20 after his death, is time enough for the usual reassessments, rich loam for the rooting and growth of resentments. He was a strong man,

Coach Nollan drove his students toward survival.

and a difficult one (What titan isn't?), and he left his marks. But whenever I find myself playing the game of myth-busting, trying to bring the old man down a few notches, invariably a kind of heroic bedrock gets in my way and makes the whole exercise ridiculous. I run into a pile of letters he received from Pacific beaches and African deserts and French villages, remember who wrote them and some of what they said and what my grandfather did with them. And then I realize, still, that he was a titan.

This is the story of a story he told me once and never again.

My grandfather's name was Bill Nollan. He coached four sports at Seattle's Lincoln High between 1929 and 1956. He played three himself at Washington State College, graduating in 1926. He won city championships in football,

baseball, and track, state championships in basketball, and became something of a legend during an era when the big-time sportswriters in town would spend serious thought and ink on high-school sports. Full-page caricatures illustrated pre-season profiles. Even epithets and enmities developed. Royal Brougham of the *Seattle P-I* called Nollan "Weeping Willie of Wallingford" for his histrionics on the sidelines. Brougham and my grandfather maintained a kind of feud for years.

He also taught PE, and seriously. For every boy he kept an index card with a record of his height and weight for each of his four years in school, plus his improvement, or lack of it, in basic skills and strength tests: pull-ups, sit-ups, sprints, and distance runs.

And he said more than once that his favorite sport to coach was track, be-

cause he never had to cut anyone, and excellence was all about improvement. He may have railed and stomped, but it wasn't in quest of the Great Prize. He just loved the order of excellence, loved to teach it and preach it, from performance to the care and maintenance of equipment. And, of course, I think it was just in his nature, like a rooster, to fill his lungs with air and let it out violently.

Extrapolating from an old photo, I see him on a sea of grass within a cinder track on a warm afternoon in May, standing with his legs apart, fists on his hips, surveying the carnival of exertion and exhaustion he orchestrated every day throughout the spring.

He wore, as always, grey sweats and a white t-shirt. A whistle on a leather lanyard was clenched between his teeth.

He'd encouraged and pushed and

COACH NOLLAN (LEFT) AND HIS LINCOLN HIGH BASKETBALL TEAM, SEATTLE ALL-CITY HIGH SCHOOL CHAMPIONS, 1939.



berated and praised hundreds of boys. He was, by the testimony of every athlete who'd ever had the fortunate ill luck to run and jump and throw for him, a tyrant, a drill sergeant, a martinet, a merciless fiend. A man of the better-to-be-respected-than-loved school. He was Coach.

I knew him years later—long after the boys, thin-clad or in spikes or helmets, had filled out and grown into men who wore suits, or overalls, or grey sweats with whistles in *their* teeth, or got left behind on beaches with fabled names. To me he was also tyrant, drill sergeant, martinet. But those were just synonyms I learned later for Grandpa. He hadn't changed. "Flat-bellied, ramrod straight, the youngest 67-year-old man in town," Royal Brougham admitted in the late 60s. Time spent with him was time spent in close-order drill, at attention, mentally scrubbing latrine fixtures. He was demanding, unyielding. And as a teenager at the height of the great divide of 1970—when war and assassination and pursuits of pleasure and world views distilled into t-shirt slogans were constant, volatile flashpoints between old and young—I might naturally have

turned away from his regimentation and his odd discipline in small things: how you say "good morning," how you sit at a table, how well you understand by what path the food you eat came to that table. And I would have turned away. But he had these *stories*.

He'd debated with Ted Williams how to grip a bat.

He'd coached a quarter-miler named Ralph Mast, a high-schooler who ran 49.1, in 1937, without spikes, without blocks, on a cinder track. One watch got him in 48.9.

His very first coaching job was in Pasco in 1926. This tennis-basketball-baseball player was hired to coach football. Not knowing anything about the game, he stalled for time by making his players repeat a few blocking and tackling drills picked up from a Washington State College fraternity brother until they began to ask, "Coach, when are we going to run some plays?" Fundamentals mastered, plays added at the last minute, Pasco crushed its first opponent. The amazed young coach built a career on that lesson.

As a student himself at Lincoln he and his doubles partner, Bob Hesketh,

dominated Seattle tennis. In 1921, on his way to college, a man approached him and asked if he wanted to become a professional tennis player and represent a little sportswear company he'd just started. It sounded interesting, but professional tennis was just a series of barnstorming exhibitions in those days. My grandfather had his heart set on college and coaching, and he told Eddie Bauer thanks, but no thanks.

HE WAS TOO YOUNG for the Great War. He was 41 and a few weeks on December 7, 1941. The following summer he enrolled in an officers' training program at St. Mary's College in California. The intent wasn't preparation for service, but to learn, better and more systematically, the service of preparation. The boys at Lincoln High didn't know what hit them.

Beginning in the fall of '42, physical education became basic training. Bill Nollan set up army-style obstacle courses at Lincoln High School and began redefining the students' epithets for him.

I speculate here, perhaps recklessly. I don't, and never did know the man's

Here, in this world of his, where he commanded platoons of athlete-warriors battling with their legs and their strengths and their skills

ALL-CITY HIGH SCHOOL TRACK CHAMPIONS, 1940



ALL-CITY HIGH SCHOOL TRACK CHAMPIONS, 1942



“Coach, I think I may still be alive because of you.”

mind. He only told the story once. The details aren't complete. But it was the best story he ever told. And I yield to the temptation of expanding upon a titan's tale and his tone of voice to a whole nest of emotions he never offered.

Here, in this world of his, where he commanded platoons of athlete-warriors battling with their legs and their strengths and their skills—only the prepared and the trained would win, would survive. So now he drove them with an added fury because the stakes were not only higher, they were off the charts, out of his ken, beyond his ability to map cause and effect, training and winning.

In June these boys would turn into soldiers and sailors. And they would face . . . the tyrant was humbled when he thought of what they would face; the war was like a personal affront to him. He was humbled because he didn't know, because he never would, and he couldn't imagine or presume to know.

He knew he didn't understand. He didn't like not understanding. So he drove his athletes and his students ever harder. As if their lives depended on it.

In the summer of '43, he said, he re-

ceived the first of the letters. “I made corporal faster than anyone in my platoon because I was so physically well prepared,” was a typical story, along with the inevitable, and likely for the boy writing it, astonishing addendum: “Thanks.”

As the graduating class of '43 progressed from training to assignments the gratitude changed character. From the Pacific: “Coach, I think I may still be alive because of you.” No more specifics in the old man's story, except that, “They told me things I wouldn't repeat.”

After the war, he said, he began to send the letters back—along with each boy's PE card. It was a process of years, but he sent them all back. Either to the men or, in some cases, the men's families. He did this, I think, because of a certain code—Titan's code, now either discredited or smiled at—that he lived by and would have questioned about as often as he would have questioned the value of breathing. These boys, to whom he had nothing any longer to teach, who had lived, had existed to a degree he would never know, *awed* him. He had nothing left to give them but his gesture of respect (because a man wants

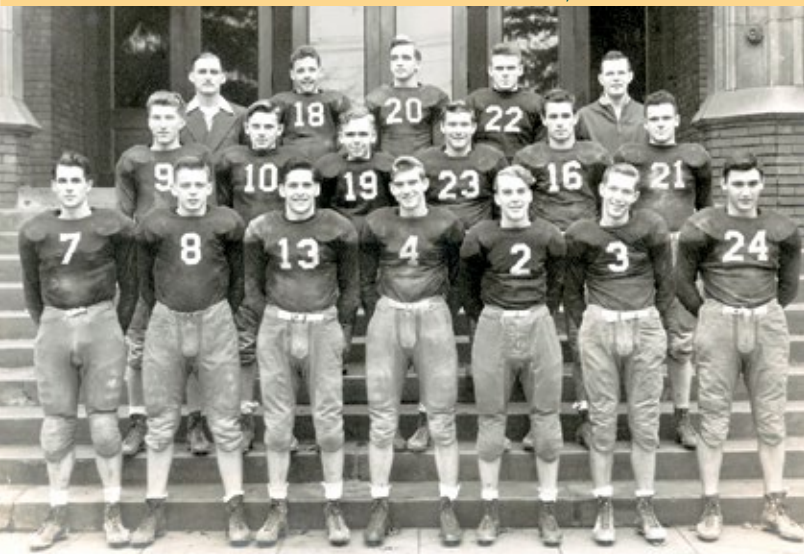
to be respected more than he wants to be loved). My grandfather's gesture of respect acknowledged that a man who has known fear and confides it would not want his confession at large in the world. And he sent the letters back.

He followed his code unerringly, though I doubt that the boys, the men, needed the letters back for the reasons the titan thought. They weren't ashamed of what they told Coach. They wrote to him in their pride and their terror and their triumph because they did love him—with that vigorous, outlandish love a boy can have for a man who drives him like a dumb ox, for some greater good. They saw and understood, that he had seen and understood before them, and did his best in his helplessness (an awful thing) to do what he had always done. To turn a boy into a man and give him the tools to survive. ■

Bill Morelock '77 is a writer and broadcaster. He and Bob Christiansen created the NPR classical music radio show Bob & Bill at WSU in 1988. Today he can be heard weekdays on WCAL-FM, Northfield, Minnesota (wcal.org) from 3 to 7 p.m. Central Time.

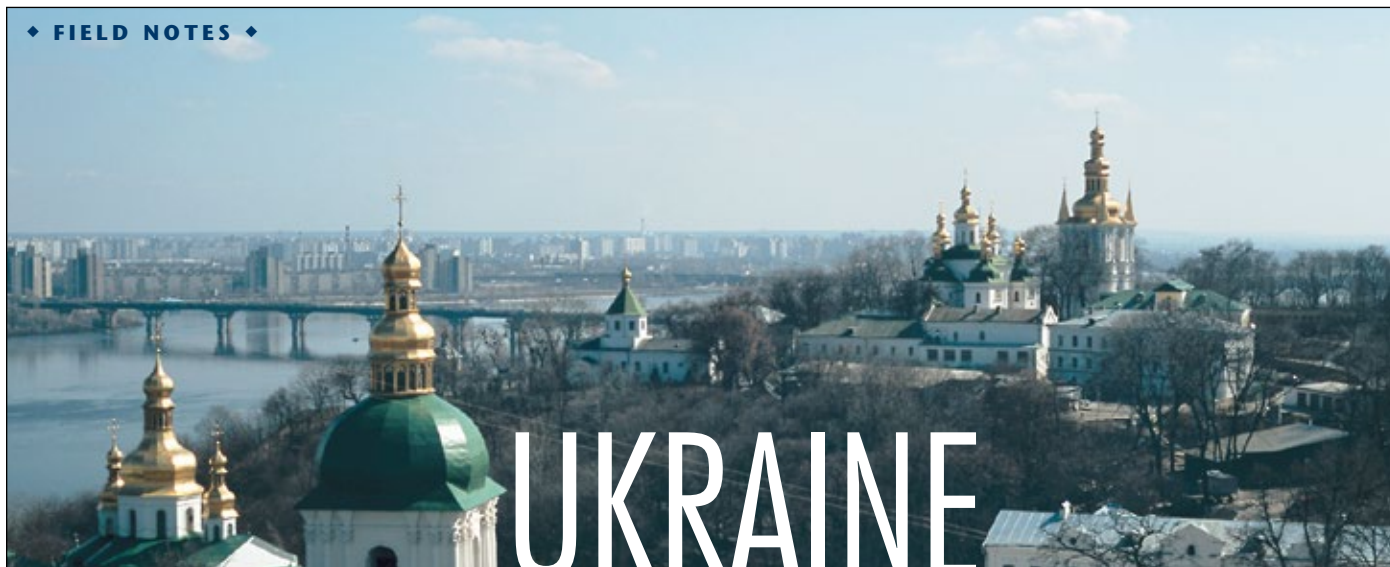
—only the prepared and the trained would win, would survive.

ALL-CITY HIGH SCHOOL FOOTBALL CHAMPIONS, 1943



WASHINGTON STATE HIGH SCHOOL BASKETBALL CHAMPIONS, 1945





Witnesses to an Uncertain Revolution *by Paul Hirt*

*How do you construct a lesson
on race relations in America
for a country that is 95-percent
ethnic Ukrainian and Russian?*

*How do you teach,
in four lectures, the basic
political institutions of
the United States as they
evolved over 200 years?*

*Paul Hirt is an associate professor of history
and the director of the WSU-Ukraine Exchange
Program for International American Studies
Curriculum Development.*

Photography by Tim Steury

WITH INDEPENDENCE and the collapse of the Soviet Union in 1991, everything in Ukraine fell apart and reassembled: politics, economics, social ethics, education, identity. Friends of mine in Pereyaslav, both teachers, told me about how their whole retirement savings, set aside over two decades, had vanished. They pulled their old Soviet bank passbook off a shelf, like a curious heirloom, and showed me their savings account balance, unchanged since 1991 and completely worthless. Their savings were in a currency independent Ukraine no longer used, while their bank was an institution to which Russia no longer felt any responsibility. Independence gave both Russia and Ukraine an opportunity to rob, or at least abandon, them and millions of others.

My friends just shrugged.

More telling, however, was their response to my question, did they ever wish the Soviet Union hadn't broken up?

"No. Absolutely not!"

Considering all the hardships, the collapsed economy, the political corruption, the uncertainty and insecurity, why on earth would you not long for the more stable and secure days gone by?

"Because we had no freedom."

Suddenly, all the rhetorical exhortations I have heard about the value of *freedom* in America seemed nothing more than lip service, like excuses for irresponsibility or license. Here were two lifelong educators who had lost their life savings, lost their retirement pension, lost most of the value of their salaries, lost any hope that they could relax and age with dignity and security, and when offered the choice between recovering what they had lost or taking a chance on an unknown future with the dubious benefit of personal liberty, they chose the latter. What could explain that other than an intense love of life, in all its messiness, and an equally intense hope for a better future?

So I went back to Pullman and applied for a grant to fund an exchange program to link these remarkable people with a bunch of equally remarkable folks at Washington State University. Since then, three dozen professors and graduate students from 14 different departments at WSU have joined the effort to help four partner institutions in Ukraine create several introductory courses in "American studies"—a subject of great interest in all the former Soviet republics.

Our task in this academic collaboration is not really to assist their slow and uncertain revolution—although in

some small way we are doing just that. Nor is it to judge its progress—even though judgments are impossible to avoid. Rather, we are there to help Ukrainian universities build a li-

brary of resources and concepts that can be used to teach the new generation of Ukrainian students something substantive and meaningful about America as a nation, to feed their almost insatiable curiosity about the place that spawned Microsoft, Michael Jordan, Madison Avenue, and Madonna.

The U.S. State Department, Bureau of Educational and Cultural Affairs, funds this curriculum project, as well as hundreds of similar educational partnerships all over the world. It is one government program even a cynic can laud. International educational collaborations do more to open one's mind—and heart—than just about any other experience available, and the personal contacts promote understanding, empathy, and cooperative relations among the partner nations. In teaching American studies in Ukraine, the United States has many lessons to offer a society undergoing dramatic reform, both in terms of its successes as well as its many mistakes and failures. Learning how to explain America—the light and the shadows—to an audience of people who have never been in this country, and to make those lessons relevant to a people rebuilding their nation literally from scratch, has revolutionized my own teaching and my view of myself and my country. I am



At the market in Pereyaslav.

grateful to have participated in a small but meaningful way in Ukraine's revolution.

THE BREADBASKET of the former Soviet Union, Ukraine is a huge country by European standards, slightly larger than France, with not quite 60 mil-

lion people, some of the richest soils in Eurasia, formerly extensive industries, and a national history that goes back 1,500 years. Extremely proud of their history, Ukrainians have a deep streak of irritation embedded in their nationalism. For most of their history they have been subjugated under one or another powerful neighboring nation or invaded by some marauding foreign power: the Tatars, Mongols, Poles, Russians, Nazis.

Over more than a thousand years of continuous occupation, Ukrainians have experienced not much more than 100 years of independence. Although the past is not much of a model for remaking Ukrainian society, tradition is the most powerful force of cultural cohesion in Ukraine. Ukrainians draw strength from this tradition to define independence. But what will independence bring? What will Ukrainians make of this opportune moment? Indeed, what does "independence" even mean in the context of today's powerful trends toward globalization? Will self-rule and cultural survival gain ground, or will Ukraine become politically subordinate, economically dependent, and culturally marginal to the new world order?

A fascinating challenge of this project is to find ways to make the study of America accessible, interesting, and instructive to Ukrainians. The audience is entirely different from the typical classroom at WSU, and the delivery of information must consequently be tailored. There are language barriers, cultural differences, a naïveté about the U.S. among students due to the fact that virtually none of them have ever been to Amer-

ica, yet all of them have media-generated images and assumptions about this most visible of nations.

There is an unavoidable gulf between visiting WSU faculty and the Ukrainian students and faculty, a profound sense of difference and of inequity. At the same time, there is a lulling, sometimes deceptive, feeling of connection, of familiarity, of solidarity. Ukrainians are among the most generous, hospitable, and open-hearted people I have ever met, despite a tendency among themselves toward factionalism. The students are eager to learn, faculty committed to enhancing their teaching skills. This all makes teaching there both a pleasure and a challenge. But our worlds are so different. How do you construct a lesson on race relations in America for a country that is 95-percent ethnic Ukrainian and Russian? How do you teach, in four lectures, the basic political institutions of the United States as they evolved over 200 years? How can you explain in a week of lectures the market-based but highly regulated American economic system to an audience of Ukrainian business students emerging from a socialist command and control economy? Which American authors should they be introduced to? How do you offer a reasonable criticism of America's consumer culture to an audience waiting desperately and impatiently for access to basic consumer goods that we take for granted here?

The challenge forces us to rethink what we teach and how we teach. In the process, we gain the opportunity to see our own country through the eyes of another culture. Above everything else, we get to assist another nation in its struggle for independence, peace, justice, and responsible development. ■



Educators Valentyna Kushnarenko and Nastya Korsun in Kyiv. Kushnarenko was Ukrainian director of the American studies exchange.



Paul Hirt enjoys yet another evening of Ukrainian hospitality with hostess Lyudmyla (Lucy) Adamenko; her mother Halyna Bytyk; daughter Svetlana; and Viktor Kushnarenko.

Mining Every Opportunity for Hope *by Tim Steury*

I DON'T REMEMBER THE CONTEXT. But I remember the setting. We were in a small dining room at Ternopil State Technical University, in Ternopil, Western Ukraine. I was dining with Ivanna Bakushevych, chair of the management and marketing department, Volodya, a student who had been my guide, and Igor Lutsiv, vice rector of the university. I think we had already eaten the borsch. No, it was fish stew. The table held the remains of the first course. Smoked fish. Potatoes. Hard sausage. Pickled fish. Cucumbers.

I was suffering from a bad cold and a late March snowstorm—and from a bout with reality. This was my second trip to Ukraine. My first trip had left me enamored with the early autumn sunlight on bucolic landscape, with the graciousness and generosity of the people, with their pride in culture and language, with the beauty of the women, with the pears and hard sausages and good vodka. I also thought that I understood, at least a little, what Ukraine was about.

On this trip, I was smarting from the innocence of my first visit. I'd caught a glimpse of something dark and lurking. Not that I hadn't noticed on my first trip

that everything was broken, that people were suffering not just from the economic disaster following Ukraine's independence and the breakup of the Soviet Union, but also from a blatant inequity and corruption that followed the dumping of communism cold turkey. I'd seen it and memorized the images and the stories told me by people struggling to rise above despair. I'd seen it, but suspected or hoped, because of the good friends I'd made and ate with and toasted and wished well, that they would prosper and make Ukraine a vital, democratic country. Now, on the downside of my second trip, I wasn't so hopeful.

"Ukraine," said Igor Lutsiv, with a resigned smile, "is very contradictory." I smiled, too, realizing I'd just been granted a clue.

The week before, freshly arrived in Kyiv (Kiev), I was on an outing, with Laurie Mercier, also of WSU, and students from Kyiv College, at Perchersk Lavra, the Caves Monastery. We were walking slowly down a cobblestone street, enjoying the March sunshine, which warmed us and blazed off the golden domes of the monastery's

churches. Suddenly, Olga, one of the students, grabbed my arm, pulling me out of the way as a huge Mercedes SUV, polished to a deep gloss and armored with a ton of chrome, roared by.

"The prior," she said, matter-of-factly.

Founded in 1051, the monastery sprawls across the hills above the city, with lovely rose gardens and dramatic overlooks of the Dnipro River and a dozen churches, beautiful buildings, gold-domed and adorned with paintings of religious figures. I'd been here before, and this time, I wanted to explore the churches and avoid the underground portion.

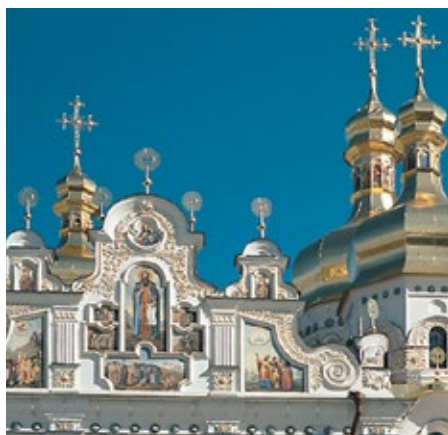
But the students were determined to show us the caves, narrow claustrophobic passages once home to the monks of Perchersk Lavra, which many never left. Their mummified bodies, covered with cloths, rest for eternity in coffins set in niches carved from the rock.

This is a sacred place for Orthodox Ukrainians. It is a morbid place, a fit repository for the sour monks who wander above, glaring at women until they cover their heads, demanding money from tourists and pilgrims, selling their icons and paintings of their mummified predecessors.

On another day, though, I am standing in St. Volodymyr's Cathedral in Kyiv.

Right: The beauty of Perchersk Lavra's churches belies the macabre symbolism of its caves.

Far right: Ukrainians speak of there being "no possibility," yet mine every opportunity for hope.



Photography by Tim Steury

"is very contradictory." I smiled, too, realizing I'd just been granted a clue.



Kyiv College students Tanya, Zhenya, Olga, and Katya, with Laurie Mercier of WSU Vancouver.

The priests and choir are weaving an austere and plaintive Orthodox chant. The church is neo-Byzantine, yellow and white with seven cupolas. Inside, the saints and the virgin are painted in art nouveau style on the walls and ceiling. It is surprising and lovely. The faithful and the curious come and go, lighting candles, seeking comfort and contemplation.

Outside the church, up Taras Shevchenko Boulevard, the ubiquitous Ukrainian mafiosi park their BMWs on the sidewalk, smoking and sneering, disdainful of the passersby whose way they block.

Whether such juxtapositions are actually contradictory or not, or any more contradictory here than in other post-Soviet countries, or any country for that matter, or whether the contradictions can be reconciled, will remain open questions.

There is the austere simplicity of the native architecture, wooden churches, peasant houses, the decorative arts. Then there is the garish extravagance of the homes of the "new Ukrainians" and the enervating ugliness of Soviet apartment blocs.

There is the intense dedication of the educators, who cannot possibly live on the 20 to 50 dollars a month that the state pays them on occasion. But they

keep teaching. Then there is the venality and corruption of Ukraine's oligarchs. And they keep flaunting their separate-ness and cleverness, squirreling away, out of country, what money they don't squander in ostentation. The *Kyiv Post* recently estimated annual capital flight at \$3 billion. This from a country whose total GNP in 1996 was \$60.9 billion.

I am at a school party, "in nature," as the Ukrainians say, along the Dnipro River. After a huge midday meal, one of the teachers is playing his accordion, and the rest of us are dancing. But then, a younger fellow pulls up in his van and sets up a speaker that starts blasting the awful, omnipresent pop music that permeates Ukraine, the worst manifestation of the popular culture plague that has infested the country. The accordion player shrugs resignedly and puts his instrument away. The rest of us dance half-heartedly for a while, but the soul is gone.

I am with my friends Valentyna, Nastya, and Ivan, at a folk extravaganza at the Palace of Culture in Kyiv. Musicians and dancers have come from all over Ukraine to perform, and the huge stage is awash with bright traditional costumes, a huge and unwieldy spectacle that teeters from the lovely and poignant to the garish, edging uncomfortably at points toward nationalistic bombast. At one point, amid much fanfare, a crowd of government officials lines the stage while prime minister Yushchenko declaims. Two people are noticeably absent. One is Yulia Tymoshenko, the former energy minister. Depending on whom you talk to, she is either a charismatic reformer or just as corrupt as the rest. Now she's in prison. Also absent is the president who imprisoned her. "Kuchma did not come," Ivan



whispers. "He is afraid."

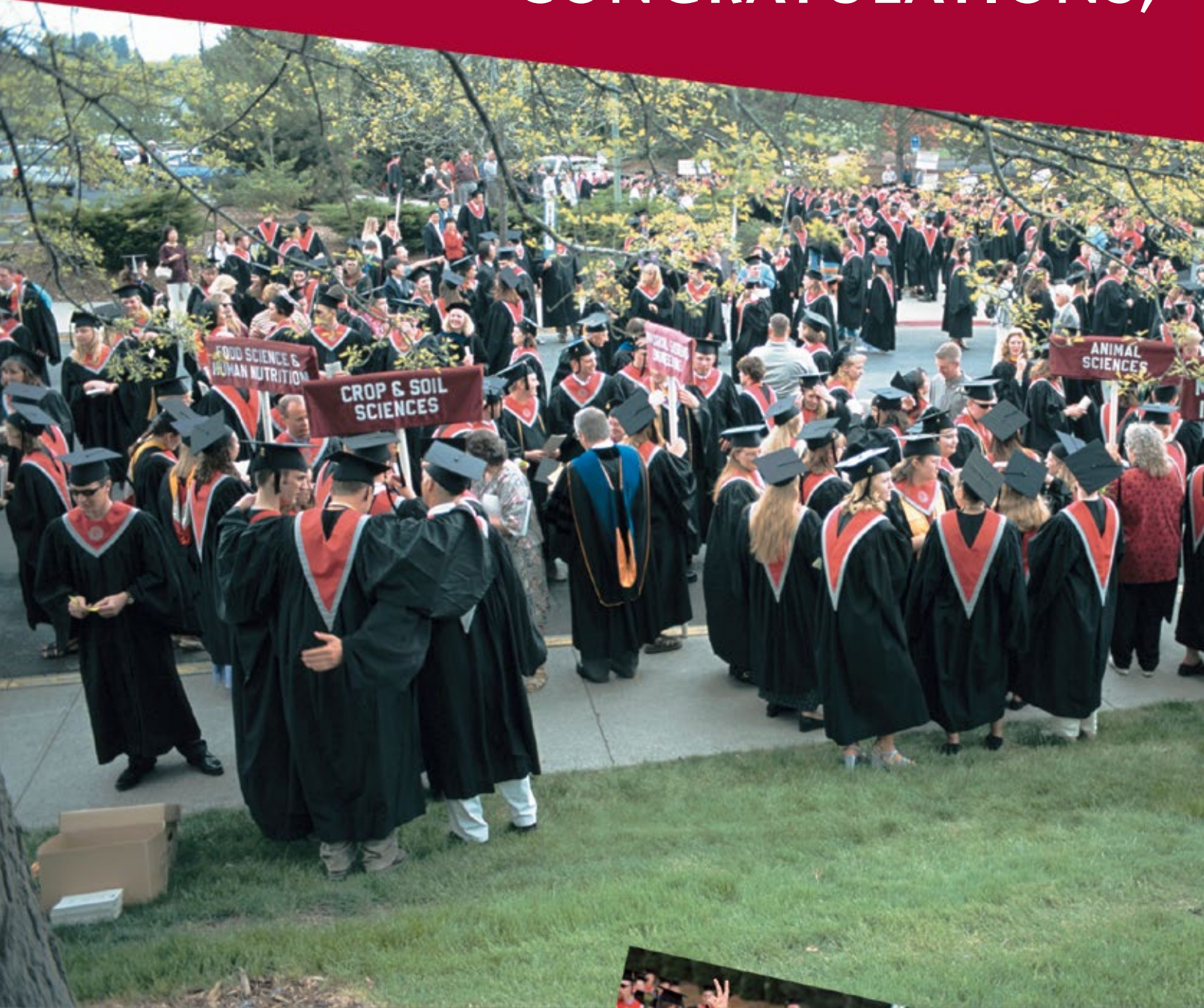
It is supertime at Lucy and Peter Adamenko's house. Their daughter, Svetlana, has dressed in her folk costume and sings us a folk song, accompanying herself on guitar. Then Peter is persuaded to sing old Cossack songs, which he does in a rich and forceful baritone. There are many toasts, to friendship and Ukraine and its women, who maintain what is left of its social fabric.

This is a country where six million people died in World War II. A decade earlier, five to seven million died in the artificial famine imposed by Stalin. But that's only among the most recent miseries. Ukraine's history is one of conquest and defeat and sadness. These are people who speak of there being "no possibility," yet mine every opportunity for hope.

In another scene, I am with Svetlana Adamenko, who is now my guide and translator, in a newly refurbished art museum on the edge of Shevchenko Park in Kyiv. We are in a small gallery of 16th- to 18th-century Spanish paintings, which somehow managed to survive the Nazis and Russians and other bandits. In a previous gallery, we have just seen a Rembrandt, of which I'd never even seen a reproduction. And a Brueghel. And a Bosch triptych. A bit overwhelmed, I stare at these more unfamiliar paintings. Then I look up. Above us on the domed ceiling, Sancho Panza and his impossible dreamer companion, Don Quixote, soar on Dapple and Rosinante forever across the Ukrainian heavens. It's not clear, however, whether they are fleeing or pursuing. ■

Tim Steury is co-editor of Washington State Magazine. He visited Ukraine in September 2000 and March 2001, lecturing on the small farm in America and other topics.

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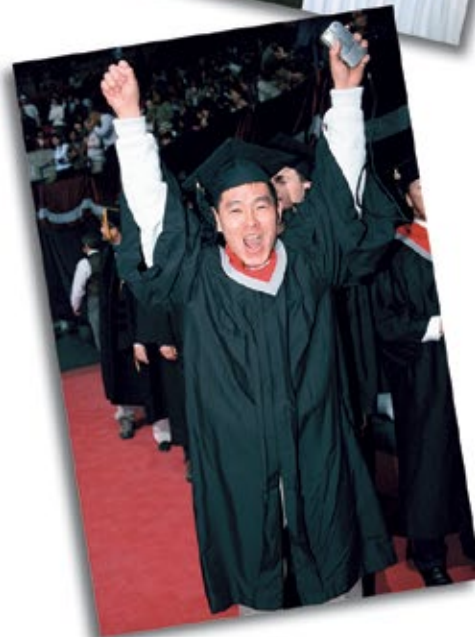
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TRACKING THE COUGARS

CLASS NOTES

1930s

Lewis Danes ('39 Elect. Engr.) writes from Smithburg, Maryland, "I enjoy reading *Washington State Magazine*." He is retired from the Federal Aviation Administration.

1940s

Max Schoening ('40 Phys. Ed.) of Puyallup writes, "I'm catching up on my reading and working crossword puzzles." His wife, Barbara, is in a rest home. Max is retired from the Spokane School District.

Melvin C. Schroeder ('42 Geol., '47 M.S. Geol., '53 Ph.D. Geol.) retired May 2001 as professor emeritus at Texas A & M University in Bryan. In January 2000, he was inducted into the Texas Science Hall of Fame and cited for the innovative use of science to benefit teachers and their students in public schools.

1950s

V. Lennie Husa ('50 Ag. Engr.), a retired engineer in Spokane, writes, "We are enjoying retirement and do some traveling and things with our children and grandchildren."

Clayton Wray ('50 Forestry) and **Mary Butler Wray** ('50 Fine Arts) are retired on Lummi Island. Clayton taught forestry at the college level for 31 years and was a real estate broker for 15 years.

James Hyde ('51 Entom.) and **Marilyn Oliver Hyde** of Kennewick celebrated their 50th wedding anniversary September 9, 2001. James retired in 1990 after working for General Electric, Westinghouse Hanford, and several Hanford contractors. He was Benton-Franklin County Master Gardner of the Year in 1996 and Washington State Master Gardner in 1999. He met Marilyn at WSU. She is a former chair of the Ken-

newick Parks and Recreation Commission and was Kennewick Woman of the Year in 1999.

Carol Raney Kelm ('52 Hist.) of Oak Park, Illinois, is active in the Elderhostel program. Since December 2000, she has participated in programs in Malta; Pasadena, California; Sagamore and Chautauqua, New York; Bermuda; and the Shakespeare Festival in Ashland, Oregon. She writes, "In between, I have a part-time job at the Chicago Historical Society."

Claude Nelson ('53 Fine Arts), Seattle, a retired technical illustrator for Boeing, paints and sketches. Last fall he traveled in Europe.

Bruce Eldridge ('56 M.S. Entom.) is a fellow of the Entomological Society of America. The retired Army colonel and medical entomologist served as chief of the entomology department at the Walter Reed Army Institute of Research. He was also professor and head of the entomology department at Oregon State University and professor at the University of California, Davis, where he directed the UCD Mosquito Research Program.

1960s

Eight years ago, **Dan L. Smith** ('60 Math.) retired from Lockheed Martin after 32 years. He and his wife, Jan, live in Sunnyvale, California. They travel to Europe and around the U.S., visiting art museums and historic sites. On a recent trip to London and Paris, he took photos and did research on the Louvre for his slide show, which he presents at the local adult education center.

Barbara Teel ('61 Home Ec.), an English and history teacher at Davenport High School, was selected Eastern Washington University's Teacher of the Month for November 2001.

Richard M. Johnson ('62 Bus. Adm.) was elected to a four-year term on the Oro Valley, Arizona, city council. He also serves on the Metropolitan Tucson Convention and Visitors Board, the Greater Tucson Economic Council, and the Arizona Senate Task Force on Effluent Water. Last year he completed an eight-year term on the WSU Alumni Association Board of Directors.

John Chaplin ('63 Geog.) was inducted into the Inland Northwest Sports Hall of Fame in Spokane in 2001. During his 21-year career (1973-94) as head track and field coach at WSU, the Cougar men's team compiled a 202-15 win-loss record in dual meets. Chaplin takes pride in the fact that 97 percent of his athletes graduated. He was head coach of the U.S. men's track and field team in the 2000 Olympic Games.

Maurice Leigh Simmons ('63 D.V.M.) is president of Veterinary Resources Americas, Inc., in Vero Beach, Florida. The company's most important current project, he writes, "is the breeding and conservation of the endangered red-fronted macaw of Bolivia." For more details see www.macawworld.com.

Gary P. Anderson ('65 Elect. Engr.) retired December 2000 after 36 years with the National Security Agency. He and his wife, Sandy, live in Severna Park, Maryland, 20 minutes from Annapolis. He completed a master's degree in electrical engineering from Johns Hopkins Evening College. "Tennis, traveling and tending the garden are a big part of our retirement plans," he writes.

Since 1995, **Richard Hammerstrom** ('66 Comm.) and the Oregon Symphony have collaborated to produce seven television broadcast specials and videos that have won an Emmy and four Tellys. On September 14, 2001, the Oregon Symphony presented the concert "In Memoriam," honoring victims and families of the September 11 terrorist attacks.

Richard Lahti ('66 Math., '01 Social Sci.) is involved in ethnographic research on Scandinavian immigration to the U.S. in the early 1900s. He previously worked for the Army Map Service in Washington, D.C., and was a branch manager for several banks in Vancouver for 25 years.

John W. Hough ('68 Polit. Sci.) has been elected a partner at the Olympia law office of Lane Powell Spears Lubersky. His practice focuses on governmental and regulatory matters, general litigation, telecommunication law, and natural resource law. His prior experience includes 25 years with the state Attorney General's Office. He is a graduate of the University of Chicago Law School.

Gregory Canova ('69 Polit. Sci.) of Seattle was elected to the King County Superior Court Judge position in fall 2000.

Gail Campbell ('69 Phys. Ed.) is a middle school physical education teacher and coach in the Everett School District, after substitute teaching for 18 years. Sons **Joseph** ('93) and **Jack** ('96) are WSU graduates.

Linda Sheridan ('69 Phys. Educ.) was inducted into the Inland Northwest Sports Hall of Fame in 2001. She coached Spokane's Shadle Park High School girls' teams to five state volleyball championships and two state titles in basketball before retiring.

1970s

Carol Fidler ('70 Educ.), Walnut Creek, California, is an administrator in a continuation high school in Concord. She writes, "Working with teens who would otherwise not graduate is interesting and challenging."

Mike Peterson ('70 Arch.) has started Design Services, a consulting firm in Walla Walla. He works on residential and small commercial structure and landscape design, site planning, and recreation facilities. Last July, he retired after a 31-year career in municipal parks and recreation. In 1993, he served as president of the Washington Recreation and Parks Association and was a national organization representative in Tokyo and Washington, D.C. During his 24 years as director of Walla Walla Parks and Recreation, the parks grew to encompass 380 acres with a \$1.5 million budget.

Denise Garceau ('71 Office Adm.) has been promoted to senior associate business manager for Integris Architects, Spokane.

Cheri L. Brennan ('72 Comm.) was elected 2001-2002 president of the Seattle Chapter of Marketing Communications Executives International, a professional association. She is one of four partners in a new venture, Golf Marketing Team, which provides marketing communications services to golf industry clients. She also continues to operate Alliance Communications, a Bellevue-based marketing public relations firm she established in 1990.

John Fulton ('72 Chem. Engr.) has joined CH2M Hill Hanford Group in Richland as the senior vice president for environmental safety, health, and quality.

Tim Mellin ('72 Comm.) is in his 24th year as a medical information specialist for the Los Angeles County Health Department. He still keeps his hand in media work, sports, news, film, and occasionally theater. He writes, "I had a great time in El Paso at the Sun Bowl. On our flight back to L.A., I got

We'd love to hear from you!

ALUMNI MAY SEND class notes via e-mail to caraher@wsu.edu; by fax to **509-335-0932**; or by snail mail to:

Washington State Magazine
Washington State University
Pullman, Washington 99164-1040.

Please include the year(s) you graduated, the degree(s) you received—e.g., Bachelor of Business Administration—and your current address and occupation. Obituary notices may also be sent to *WSM*.

Kleene keeps “influenza watch” at CDC



Jennifer Kleene

WHEN JENNIFER KLEENE was awarded a national fellowship in the Emerging Infectious Disease program at the Centers for Disease Control and Prevention last summer, it took a while for her to find out. She was in rural Armenia participating in a United Methodist relief effort that involved volunteer projects in sustainable agriculture.

Working at the CDC has been a lifelong goal for the 23-year-old Washington State University graduate. She completed a bachelor's degree in microbiology in December 2000. Her father, Marvin Kleene, is associate professor of agricultural education at WSU.

"I was ecstatic," she said of her acceptance at the CDC. She joined the Immunology and Viral Pathogenesis section in the Influenza Branch last September. The section's work is focused on avian influenza, which has potential to spread worldwide. One challenge is to develop immunological tests to detect emerging flu strains—linked to bird populations—that might become pandemic. The work involves significant amounts of international collaboration.

"We are testing human populations that are at an increased risk for contracting influenza from avian populations," Kleene explained by phone earlier this year from

Atlanta. "Since we have realized that traditional tests for detecting bird flu are less sensitive, we are optimizing newer tests to make them faster and more sensitive."

Such research remains critical in light of a 1997 Hong Kong influenza outbreak, when 18 people became sick, six died, and 1.5 million birds were slaughtered.

According to Kleene, it was the first documented occurrence that the flu went directly from poultry to humans and caused a respiratory disease without requiring a swine intermediary. A strain of influenza virus, H5N1, previously known to infect only birds, appeared in humans. Although the outbreak was not considered pandemic, it alarmed public health officials. Suddenly, an H5 flu strain that had never occurred in humans before was found in Hong Kong.

Kleene is learning a lot about influenza and gaining a better understanding of why the 1997 outbreak was so important. "We're looking for the next one that might go pandemic."

Her research at the CDC sometimes requires that she wear protective gear to guard against possible inhalation of the virus. She puts on scrubs similar to hospital attire, a long apron, two layers of gloves, and an air purifier that is worn around the waist and connected by a long hose to her mask.

"It looks like something out of a science fiction movie," she says.

Kleene's one-year fellowship at the CDC will end in September. Her next goal is to complete a master's degree in public health. Then she may pursue a Ph.D. in epidemiology, the study of how a disease travels through a population. She wants to learn more about the spread of acute infectious diseases, she says. "That's where my heart is—much to the dismay of my family."

This may also include bioterrorism research, an area Kleene had been interested in before it made recent headlines. What are the risk factors involved in the spread of infection? What steps can be taken to prevent disease from being widespread?

"Now everyone is overhauling their public health preparedness plan. I'd like to be a part of that."

—Treva Lind

Fielding questions about ANTHRAX

At the height of last October's anthrax scare, Jennifer Kleene found herself in the middle of fielding questions about bioterrorism. Armed with a script of answers on anthrax provided by the Centers for Disease Control, she volunteered October 19 with fellow CDC co-workers to take phone calls from the public.

She answered general questions, as the calls came in one after another during her 12-hour shift. Most of the calls were from people who were concerned about their mail because of the threat of anthrax. Some calls were from police departments, others from public health departments. If she couldn't answer a question, she forwarded it to the specialists in that particular area.

Being at ground zero of the anthrax investigation, Kleene says she learned much about the anxiety of the general public and the intricacy of the problems that public health officials and police faced when dealing with hoaxes versus valid concerns.

After the initial scare, fewer phone volunteers have been needed by the CDC to answer calls about bioterrorism. Still, Kleene is glad she volunteered for duty when she did.

"I chose the absolutely worst shift time (7 p.m. Friday night to 7 a.m. Saturday morning) because I really wanted to have an opportunity to do this. It was a fantastic learning experience."

CLASS NOTES *continued*

the stewardess to announce on the P.A. that members of the Cougar football team were aboard and had just beaten Purdue."

Donald Schreiweis ('72 Ph.D. Zool.) is the director of preprofessional health studies and associate professor of biology at Saint Louis University. In 2000, he was elected national treasurer of Alpha Epsilon Delta, a national honor society for premedical students.

Steve Burnett ('73 Bus. Adm.) has been promoted to senior vice president

of U.S. Bank, Bellevue, private client group. He has been with the bank for more than 25 years. The Sammamish resident has been involved with Corporate Council of the Arts and serves on boards of United Way of Pierce County, the Federal Way Philharmonic, and the Bellevue Downtown Association.

Jack Nevin ('73 Soc.), Tacoma, sent the following e-mail message: "I serve as a judge in Pierce County. Recently I traveled to Kosovo in the former Yugoslavia where I served as a representative to a United Nations Tribunal." He was

part of a United Nation's judicial panel asked to consider whether to release or hold three Albanian men accused of planting a bomb on a bus carrying Serbians in November 2000. Eleven people died when the bomb exploded. The panel ordered the defendants be held until trial, fearing that they were likely to flee or might destroy evidence that could be used against them. During his week in Kosovo, he described the country as being "in disarray."

Bob Guptill ('74 Comm.) was inducted into the Central Washington University Athletic Hall of Fame in October 2001. The former CWU sports information director for two decades is now public relations director for the Great Northwest Athletic Conference with headquarters in Billings, Montana.

After 31 years, **Pat Bafus** ('75 Phys. Ed., '75 Educ.) retired last summer from teaching physical education at Pioneer Middle School in Walla Walla. She taught from a wheelchair, since being injured in a 1970 car accident. At WSU she was a member of the women's field hockey and basketball teams. She continues to swim and bicycle regularly. On the last day of school she said, "I love my job, but I will not 'be' anymore if I keep it up."

Len Nelson ('75 Rec.) retired as assistant manager of Long Beach-area state parks after 25 years. In 1979 he was presented with the U.S. Coast Guard Silver Lifesaving Medal and the Governor's Lifesaving Award for saving a troubled person 250 yards from the Gray's Harbor shore. He has formed the Friends of the Columbia Gateway. His passion is telling visitors about natural and human history and makes videos for interpretive centers.

James Howard Clark ('76 Civ. Engr., '76 M.S. Environ. Engr.) has been elected president of the Water Environment Federation, an international technical, scientific, and educational water quality organization. He is vice president of the engineering and construction firm Black & Veatch, located in Los Angeles. Earlier he was the senior engineer and project manager for the design of the City of Los Angeles Hyperion Treatment Plant, which was named one of the 10 most outstanding public works projects of the 20th century by the American Public Works Association.

Col. Robert Dickmeyer ('76 Fine Arts) is deputy commander of the 366th Logistics Group at Mountain Home AFB, Idaho. He writes, "In my current assignment, I am part of the air wing that sent more airplanes/people and dropped more tonnage for Operation Enduring Freedom (in Afghanistan) than any other Air Combat Com-

mand," although he was not sent there. At WSU, he was a member of coach Bob Peavy's gymnastics team and Pac-10 champion in vaulting.

Robert Phillips ('76 Econ., '76 Math.) is a visiting professor at the Columbia School of Business during the 2002 calendar year. He is developing and teaching courses in pricing and revenue optimization, as well as performing research and writing a book. Robert and his wife, Doria, have a permanent home in Palo Alto, California.

Mary "Jan Hageman" Clement ('77 Ph.D. Soc.) was a Fulbright Scholar to Birzeit University Law Center in the West Bank (occupied territories of Israel) in 1998-99. She completed a dual degree in law and social work (1990). In 1999, she retired from Virginia Commonwealth University, where she taught criminal justice courses for more than 18 years and wrote the second edition of her textbook, *Juvenile Justice System: Law and Process*. She established a private counseling business in Montana and Tennessee. She lives in Portland, Tennessee, where she has a retreat center and a Native American sweat lodge.

James Donaldson's ('79 Soc.) new physical therapy clinic in Tacoma had its grand opening November 9, 2001. The former WSU and pro basketball player also has clinics in Mill Creek and Cashmere.

Lonnie Dunlap ('79 M.A. Child & Fam. St., '92 Ph.D. Sci. and Arts) accepted a job in January as director of career services at Northwestern in Evanston, Illinois. She was employed at WSU for 21 years, most recently as director of career services.

1980s

Greg Graham ('80 Civ. Engr.) is chief of planning for the U.S. Army Corps of Engineer's Walla Walla District, which covers the Snake River drainage in six states. He previously was involved in salmon recovery efforts and project manager for the Corps's Lower Snake River Juvenile Migration Feasibility Study.

Shaun Callan ('82 Home Ec.) has been promoted to relationship development officer from assistant and branch manager of Baker Boyer Bank in Walla Walla. She began her career in banking in 1982 as teller and new account representative for Capital Savings.

John Adami ('83 Mech. Engr.) is vice president of engineering and sales for GT Development, a Seattle-based manufacturing company that provides custom engineered components to the heavy-truck industry. He and his wife, Sandi, live in Bellevue. They and their two children enjoy worship and fellowship at University Presbyterian Church,

School superintendent recognized on state, national levels

R. STEPHEN RASMUSSEN capped two-plus decades as a school administrator by being named Washington Superintendent of the Year for 2001 and one of four finalists for National Superintendent of the Year.

Rasmussen, 51, has been superintendent of the 7,900-student Franklin Pierce School District since 1992. The district south of Tacoma serves a growing community with increasing ethnic and linguistic diversity.

When he was hired, the district faced a \$600,000 deficit. In 1998, the district became the first in the state to pass a four-year school levy. The same year, voters approved a \$25.6 million bond for construction.

The superintendent gladly shares his recognition. "It is about our staff and community commitment to education and is an acknowledgement of all our efforts," he says.

The Burlington native, who grew up on a dairy farm, holds three degrees from Washington State University—a B.S. in agriculture, 1973, an M.S. in vocational-technical education, 1979, and an Ed.D., 1988. He chairs the College of Education's professional education advisory board.

On his way to the national convention of the American Association of School Administrators in February, R. Stephen Rasmussen passes a banner made by Franklin Pierce School District students.



DUNCAN LIVINGSTON, THE NEWS TRIBUNE, 2002. REPRINTED WITH PERMISSION FROM THE NEWS TRIBUNE, TACOMA, WASHINGTON.

KI TECUMSEH LEARNED TO WORK WITHIN THE SYSTEM—OR STRETCH IT

Early leader of WSU's Native American Students

"Indian people don't consider themselves to be a minority people." — Ki Tecumseh

GROWING UP on the Yakama Indian Reservation, Kiutus "Ki" Tecumseh, Jr. learned to put his finger up to the wind to test the direction it was blowing. In his ideas and actions, he also likes to test conventional thought. A long-time public relations specialist with the Department of Energy in Albuquerque, he is soft-spoken and measured in his speech. People tend to listen to what he has to say, more than how he says it.

For example, in the late '60s and early '70s, when college students were protesting everything from U.S. military involvement in Vietnam to racism and the rights of migrant farm workers, Tecumseh was marching to a different drummer. He always has.

Earlier, when he informed his high school counselor at White Swan that he wanted to go to college, he was told, "You will fail. You are good with your hands. You can be either a baker or a bricklayer."

Not to be dissuaded, Tecumseh applied for admission to Washington State University. He was accepted. While earning a degree ('72 Comm.), he was an ASWSU senator and an assistant instructor in a contemporary American Indian Studies class. Many remembered him best as a founder and first president of the Native American Students Association.

"Indian people don't consider themselves to be a minority people. They have their own religion, own culture, own life and land," says Tecumseh, a member of the Winnebago Indians of Nebraska, his father's tribe. He believes traditional fishing rights, shoreline and mineral issues, and treaty rights transcend the reservation and are important to all people living in the Northwest.

When attempting to organize WSU's Indian students more than three decades ago, he remembers being "manipulated" by the University. Finding himself shuffled from one office to another, he learned to work within the system. Or stretch it.

Tecumseh recalls an early conversation with WSU president Glenn Terrell "that wasn't going anywhere," until he placed a tape recorder on Terrell's desk. He discovered later that the recorder's batteries were dead, but his actions still earned the president's attention and eventual support. Last fall, the pair spent two hours visiting over lunch in Seattle. Tecumseh was en route to the Tri-Cities, his wife Nancy's home, and to WSU. During two days in Pullman, he met with President V. Lane Rawlins and Alex Tan, director of the Murrow School of Communication, among others.

"Indian-specific issues" have always been important to Tecumseh.



Ki Tecumseh

During his student days, he and his Native American peers pushed the University to recruit more Indian students from the state and provide the support services they needed to be successful.

During the 1970 WSU student strike against racism, leaders of other student minority groups assumed the Native American Students Association would be supportive. When the strike committee met, Tecumseh told them the Indian students would not be part of the strike. Faculty member Johnetta Cole, a powerful voice for the African American students and later president of Spelman College in Atlanta, lobbied for his support. "Ki, they [the Indian students] will listen to you," she said. "Be with us."

"I'm sorry, I can't do this," was his response. "We operate by consensus. I will never tell the Indian students what they will think." To this day, he believes "Our position helped break the strike." He credits late WSU professors Suzanne Lloyd, psychology, and Louis McNew, English, with being

particularly sensitive to minority students. "They were open to us, willing to listen to our concerns, and helped where they could."

As coordinator of the Curriculum Advisory Program for 17 years, McNew took the lead in creating the Academic Development Program that provided tutorial assistance for those students needing it.

The late Alan Barnsley's course in creative writing also stands out in Tecumseh's mind. "We were encouraged to talk about our writing in class . . . to share." From that dialogue, he gained empathy for others and a sense of working cooperatively toward common goals.

In Albuquerque he is active on a citizens' advisory board that wants to build an Indian Center, and he chairs the advisory council on Indian education for the state board of education. The council's goal is to convince the Bureau of Indian Affairs to adopt state standards for schools on Indian reservations.

"It's not hard to remember your people," he says of his activities today. As early as high school, he was writing a column on Indian issues for newspapers in Toppenish and Wapato. People looked up to him then. They still do.

Someday Tecumseh may write a book about Indian issues, including Indian education—"but not a profile in courage." He believes in affirmative action. "It's good. It works. It can benefit everyone," he says. "But don't mistake quotas for goals."

As invited speaker at an Earth Day celebration in Utah's Monument Valley a few years ago, he stressed the importance of tradition, culture, and education but cautioned against "sanitizing" things.

"If we work only on science and math, and do away with social issues, we are lost as a country. We will be totally neutralized, sterile."

— Pat Caraher

CLASS NOTES *continued*

"right in the heart of Seattle's U-District—a great place to display the Crimson and Gray," John writes.

Timothy McGillivray ('83 Comm.) and Aniko Imre report the birth of a third child, Simon, June 5, 2001. Tim is director of community relations for North Thurston Public Schools in Lacey.

Kurt Mettler ('84 Forestry) is a forest manager for the Spokane Tribe. He

worked for the Coeur d'Alene Tribe for 16 years.

Keith Williams ('84 M.A. Hort., '91 Ph.D. Hist.), director of the Wenatchee Valley Museum, has been elected a trustee of the Washington Commission for the Humanities.

Irene Gonzales ('85 Educ.) is a principal at Green Park Elementary School in Walla Walla. She is participating in WSU's two-year, field-based superin-

tendent certification program. She has received the \$25,000 Milken Family Foundation Educator and \$2,500 Washington State Christa McAuliffe awards. She has taught in Pasco and Richland and was a principal in Yakima for nine years.

Joe Goodwin ('85 Elect. Engr., with honors) works for the Federal Aviation Administration in Renton. He was responsible for engineering the no-fly

zone for the 2002 Winter Olympics in Utah.

Raile Kerppola ('85 Biochem.) is the managing director of the Michigan Life Sciences Corridor at the University of Michigan, where her husband, **Tom Kerppola** ('85 Biochem., '88 M.S. Biology), is the Howard Hughes Endowed chair in biochemistry. He has a \$1 million grant to support his lab, which focuses on how proteins signal each other to change gene expression.

Jeffery Lewis ('85 Hotel Adm.) is a front desk agent for Phoenix Inn Suites in Olympia.

Casey O'Dell ('87 Const. Mgmt.) is the facilities manager at Sharp Microelectronics of the Americas in Camas. He serves on the Camas Educational Foundation board of directors, the city design committee, and Camas-Washougal Chamber of Commerce board.

Martin Sweet ('87 Arch.) has been promoted to associate project manager for Integrus Architects, Spokane.

1990s

Mark Mazzola ('90 Ph.D. Plant Path.) does fruit tree research for the USDA Agriculture Research Service in Wenatchee. Last year, his work took him to Italy and Amsterdam. His wife, Michelle, accompanied him on the Italy trip. She is employed by the Cascade School District, administering a new \$1.5 million grant the district received for after-school and summer-school programs for kids and a community school of hobby classes for adults. She writes: "Leavenworth is a friendly community with just enough outside people like us having moved in so that we are not viewed as 'outsiders.'" Four years ago they built a cedar home on 12 acres near Leavenworth.

Shelly Morris Mumma ('90 Comm.) is associate director of student life at Nebraska Wesleyan. She writes from Lincoln, "I am surprised to think that the students who were freshmen when I started will be graduating this spring. I'll really miss them." Shelly is applying to the Ph.D. program in leadership studies at the University of Nebraska. Her husband, Mark, is a case manager at the Nebraska State Penitentiary.

Trina M. Burroughs Weeks ('92 Bus. Adm.) and her husband, Vern Weeks, announce the October 10, 2001 birth of a son, Jack Thomas. She is telecenter manager with Dun & Bradstreet in Tucson, Arizona.

Carrie Ann Horton ('93 Psych., M.A. Counseling), Cheney, is a parent education instructor for a family literacy program at Community Colleges of Spokane.

Andy Sugden ('93 Comm.) won the national Edward R. Murrow Award

Alumni Association honors past presidents

THREE FORMER presidents of the Washington State University Alumni Association have received WSU's Alumni Achievement Award. Jim Miller, Vancouver, and Denny Jones, Redmond, were recognized in mid-November at the association's reception for past presidents in Bellevue. John B. "Jack" Sutherland, Tacoma, was unable to attend. He received the award in December.

Miller ('65 Police Sci.) was cited "for exemplary leadership as a district director and president (1995-96) of the Alumni Association, and for effective advocacy in supporting University programs in student enrichment, academic outreach, and intercollegiate athletics."

Miller came to WSU from Tacoma. After earning his degree, he stayed on to complete his teaching credentials in education and later earned an M.Ed. from Oregon State University. His superintendent's credentials are from WSU. He began his climb up the alumni hierarchy as a district director in Vancouver in 1979.

He retired in 1993 as assistant superintendent of the Educational Service District in Vancouver after 29 years as a teacher and administrator. He is a past president of the WSU Parent's Program and also served on the WSU Athletic Council. At WSU, he was a member of Phi Kappa Theta fraternity.

Jones ('64 Bus. Adm.), a Spokane native, was recognized "for enhancing a three-generation family tradition of WSU advocacy, service, and generosity, and for providing excellent leadership, and as an effective and dedicated alumni president (1997-98)."

His grandfather, George Grimes, worked for Washington State College for 50 years, retiring in 1948 as superintendent of buildings. His parents, Kennard Jones ('29 Bus. Adm.) and Bur-



Jim Miller



Denny Jones



John B. "Jack" Sutherland

nette Grimes Jones (x'29), and a brother, Barry Jones ('55 Bus. Adm.) preceded him at WSU. Barry was alumni president in 1968-69.

Jones spent eight years in the Air Force after earning a commission at WSU. Since 1973, he has been a pilot with Delta Air Lines and holds the rank of captain.

In the 1980s, while living in Fort Worth, he began hosting alumni events not only in various Texas locations, but also in Louisiana, Florida, and Georgia. He was named a

district director in 1990 and currently represents the alumni association on WSU's Athletic Council. He is a member of Alpha Tau Omega fraternity.

Sutherland ('40 Chem. Engr.) was honored "for 65 years of loyal, distinguished, and generous service to WSU as a student leader, supportive alumnus, Cougar Club officer, and alumni president (1972-73)."

Sutherland joined Hooker Chemical Corp., a subsidiary of Occidental Petroleum, in 1951, as a sales engineer. He spent his entire career in sales and marketing, retiring as vice president of marketing.

As an undergraduate, Sutherland was a member of Delta Upsilon fraternity and Interfraternity Council, and he served as business manager for the *Chinook* yearbook. He was a member of the College of Engineering and Architecture Advisory Board and the Alumni Center National Campaign Committee, and he chaired the Golden Grad Reunion Committee in 1987-88.

Ehlo inducted into Pac-10 Hall of Honor

FORMER WASHINGTON STATE UNIVERSITY BASKETBALL COACH George Raveling once described Craig Ehlo (x'86 Soc. Sci.) as "playing on the ragged edge of being out of control." In other words, Ehlo made things happen. His full-speed-ahead approach on the court produced some turnovers, but also a host of steals resulting in easy baskets for the Washington State basketball team.

The former Cougar star was one of 10 inaugural basketball inductees into the Pacific-10 Conference Hall of Honor. The ceremony was held during the Pac-10 Men's Basketball Tournament at the Staples Arena in Los Angeles in March.

Other inductees included coaching greats John Wooden (UCLA) and Pete Newell (Cal). They were joined by former players Sean Elliott (Arizona), Byron Scott (Arizona State), John Dick (lone survivor of Oregon's 1939 NCAA championship team), Gary Payton (Oregon State), Bill Sharman (USC), Hank Luisetti (Stanford), and Bob Houbregs (Washington).

Ehlo led WSU to its last NCAA tournament victory, a 62-52 win over Weber

State, in 1983. The Cougars were eliminated by Virginia, 54-49, and its 7-foot-4 center, Ralph Sampson. WSU finished 23-7.

As a senior, Ehlo averaged 12 points in the Pac-10. His 136 assists established a then WSU season record for conference games. He ranks fifth on WSU's single-season steals list, averaging two per game. In 1983, he was a third-round NBA draft pick by the Houston Rockets and played professionally for 14 years.

The transplanted Texan now lives in Spokane, where he has coached the John Rogers High School boys' varsity basketball team for three seasons.

He remembers Raveling as "a unique person" . . . one who made every day a wonderful experience. He was always doing something different." For example, he subscribed to nearly every major newspaper in the country as part of his recruiting strategy.

"He had the newspapers delivered to practice and read us [non-sports] stories out of *The New York Times* or *The Washington Post*. He wanted us to know something more than basketball," Ehlo says.

He credits Joe Michalka, his old high school coach in Lubbock, for being a role model.

"Deep down, playing basketball at all levels during the years, I thought I would like to coach at this [high school] level because of the influence you can have on these guys," he says.

"I try to take simple principles—sports principles like hard work, discipline, and dedication—and have my players relate them to everyday life."

Ehlo and Jani Webb Ehlo ('83 Speech) are parents of three children—Erica, 13, Austin, 10, and Gavin, 5. In addition to coaching, Ehlo says he enjoys taking care of the kids, freeing up time for his wife. With the two older children in school, he spends a lot of "quality time" with Gavin.

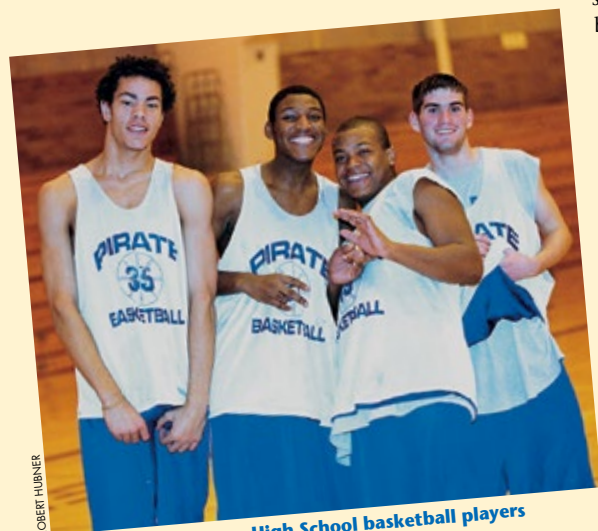
Jani's late father, Ron Webb, pitched for the WSU baseball team in the late '50s. Her brothers, Steve (first base) and Stan (pitcher), also played for the Cougars.

It should come as no surprise then that the young Ehlos have taken to sports.

"My daughter loves volleyball and is very good at it," Craig says. And both of his sons "love to shoot" the basketball.

Just as their dad did.

— Pat Caraher



John Rogers High School basketball players take a break from practice.



Craig Ehlo has helped resurrect the basketball program during his three seasons as head coach at the Spokane school.

from the Radio Television News Directors Association for 2001. He is a photographer-editor with WOOD-TV in Grand Rapids, Michigan. He received the award for a sports story about a special-needs boy in Holland, Michigan, who helped a high school basketball team for four years. In gratitude, the coach told him that if the team was ahead by 10 points or down by 10, he would play the boy in the last minute of his senior year. The team was down by 13 points. The boy came in and made a final basket. The fans stormed

the court, caring less that the team lost, but cheering for the boy.

Joshua Almy '95 is the principal at Pioneer Middle School in Walla Walla. Previously he completed an administrative internship in the South Kitsap School District and spent five years teaching math, English, and special education classes.

Angela Lee DeWees ('95 Civ. Engr.) obtained her Indiana Professional Engineering license in February 2001. She is a transportation project engineer for

The Schneider Corp., a consulting firm with 200 employees in Indianapolis.

Dan Wareham ('96 Bus. Adm.) has joined Wheat & Associates Insurance in Spokane.

Lara Fey ('97 D.V.M.) joined the Vineyard Animal Clinic of Walla Walla last July after working at the Mid-Columbia Pet Emergency Service in Kennewick for four years.

Paul Honeyford MacGregor ('97 Comm.) is sales education manager for

New Horizons Computer Learning Centers, Inc. The company designs and delivers sales training for a network of computer training franchises. The firm also produces corporate training videos and helps coordinate company-wide events. He married **Katy Shaff ('98 Hum. Dev.)** in 2000. They live in Huntington Beach, California.

Jeff Newgard ('97 M.B.A.) has been promoted to assistant vice president and business banking manager of Baker

Lt. Col. Stinemetz wanted to convey his condolences

WORD OF CIA AGENT Mike Spann's death November 29, 2001 in Afghanistan struck a chord with Washington State University graduate Lt. Col. Kurt Stinemetz ('76 Anthro.), U.S. Marine Corps. Spann was the first U.S. casualty in the war on terrorism in Afghanistan. Spann was killed in an uprising of Taliban prisoners being held for interrogation. His hometown was Winfield, Alabama, population 1,200.

Stinemetz oversees the Montgomery Military Entrance Processing Station 200 miles away from Winfield. Some 16,000 men and women in Alabama wanting to enlist in all branches of the military and National Guard annually pass through the facility.

Stinemetz and Spann shared a common bond. The latter was a captain in the Marines before joining the CIA.

When Stinemetz learned where the memorial service for Spann was to be held, he called the minister at the church in Winfield and told him he'd like to attend. He wanted personally to convey his condolences to Spann's widow and three children. On his own, he arranged for a Marine color guard and firing detail to travel from Montgomery to Winfield.

The December 5 service concluded with a 21-gun salute. (Later Spann's body was buried in Arlington National Cemetery.)

"The whole town of Winfield" turned out for the memorial service, Stinemetz said. He visited with Spann's family, his best friends, even his football coach. He sat next to a woman, a cousin of Spann's, in the church where Spann had been a regular worshipper. In his eulogy, the minister remembered Spann as a Christian of high morals, clean-cut and decent, well liked and respected . . . "the All-American kid." Stinemetz

heard the same comments from others.

Clad in his dress blue uniform, Stinemetz was sought out by reporters. Was he Spann's commanding officer? Did he know him?

"No," the colonel responded. "He was a Marine. I'm a Marine. I wanted to be here. I didn't need any other reason."

In his conversation with *Washington State Magazine*, Stinemetz apologized if his words sounded "melodramatic."

"That's how Marines feel about fellow Marines. It's inveterate in our soul from basic training. It becomes part of our genetic code," he said. "Once a Marine, always a Marine."

FOR STINEMETZ, BECOMING A MARINE had an air of inevitability about it.

After graduating from WSU, he opted for Officer Candidate School at Quantico, Virginia. His decision was influenced by the fact that his father was a retired Marine officer and that "everything else looked rather dull and boring in comparison."

His area of training is air defense, specifically surface-to-air missiles like the Hawk, now obsolete, and the Stinger. He said the Afghans used Stingers successfully to deny the Russians air superiority in 1980. As a result, the invaders were forced to fight a ground war in the rugged terrain, where they were no match for the fortified Afghans.

As a student at WSU, Stinemetz lived on the seventh floor of Rogers Hall for four years. Many of the friends he made there are now "lawyers in Seattle or Bellevue," he says with a laugh. He found the campus "conservative, but intellectually stimulating." He rarely missed a presentation by visiting speakers, among them Ralph Nader and Eldridge Cleaver. And he enjoyed concerts by small performing groups from the music department. Pullman's rural situation and land-grant philosophy appealed to him.

"Some of the fondest memories of my young life were forged there," he says. Two of his sisters would follow him to WSU. "They feel the same way." "Wherever I've traveled, from the Taj Mahal to New Zealand, Washington State University has been a part of me. I often think about returning to Pullman to live. It's a timeless place."

— Pat Caraher

Lt. Col. Kurt Stinemetz (right) greets Jim Ellard, chairman of the Royal Marines Association in London.



Boyer Bank at its Tri-City business center.

David Young ('97 Bus. Adm.) has joined the law firm of Lane Powell Spears Lubersky in Seattle as an associate. His concentration is in complex commercial litigation. He is a 2000 graduate of the University of Michigan School of Law.

As marketing director of the Tri-City Area Chamber of Commerce, **Jonni Dron** ('98 Bus. Adm.) is responsible for member relations, sales, and retention.

Brandon Franklin ('98 Civ. Engr.) has joined the engineering office of Anderson Perry & Associates in Walla Walla. She previously managed construction for a civil engineering firm that had projects in Oregon and California.

Michael Thomas ('98 Acct.) is a financial analyst for First Union National Bank in Charlotte, North Carolina. He previously spent two years in audit tax work for a Bellevue firm.

Jodi Freytag Miller ('99 Fine Arts) won a graduate scholarship to the Rochester Institute of Technology but decided to go for an M.F.A. at the Academy of Art in San Francisco. While attending classes, she's also serving her second internship at Electronic Arts, one of the world's largest gaming companies. She is working on an EA project regarding a famous person's golf game.

2000s

Joseph Davis ('00 Material Sci. & Engr.) received his commission as a naval officer after completing Officer Candidate School at the Naval Air Station in Pensacola, Florida.

Jeff Evan ('00 Comm.) reports, "things are going well for me down here in the Valley of the Sun." The former student intern in the WSU sports information director's office accepted a job in the SID office at Arizona State University. He is responsible for Sun Devil baseball and volleyball. He also is official scorer in the Arizona Rookie Baseball League.

Rian Rosa ('00 Comm.) and **Grady Emmerson** ('99 Math.) were married August 4, 2001 in Kenmore. Grady is a math teacher and coaches football and baseball at Gonzaga Prep High School in Spokane. Rian is an account executive for Adventures in Advertising.

After graduating from WSU Spokane, **Heidi I. Heidel** ('01 M.A. Crim. Just.) moved back to Los Angeles, where she is working as a federal agent for the Department of Justice in the Federal Bureau of Prisons.

IN MEMORIAM

1920s

Florence Cotton ('25 Educ.), 101, January 29, 2002, Seattle. Taught in college and then junior high until she married in 1928.

Thomas Onstot ('29 Forest & Range Mgmt.), 94, November 19, 2001, North Shoreline. Worked for the U.S. Forest Service in Georgia and Tennessee and for the Department of Agriculture in the Western states. Retired in 1969.

1930s

Virginia Kuhn Ellingsen ('31 Educ.), 90, January 18, 2002, Spokane. Moved to Spokane in 1938. Became a fourth-grade teacher in 1950 and later a teacher for homebound disabled students. Retired in 1972. Alpha Delta Pi sorority. Widow of Carl "Tuffy" Ellingsen, who played for WSU in the 1931 Rose Bowl.

Ramon "Ray" Kent ('31 Agri.), December 1, 2001, Lacey. Employed by the Soil Conservation Service for 35 years. Alpha Gamma Rho fraternity.

James Johnston ('34 Hort.), 90, December 2, 2001, Oroville. Started career in King County in 1936 as assistant extension agent and became head extension agent in 1948. Transferred to Clark County in 1960. Retired in 1976.

Eileen Wexler-Johnson ('36 Chem.), 86, January 10, 2002, Pullman. Active in local and national politics as a Republican. Avid Cougar sports fan. Alpha Gamma Delta sorority.

Marion "Tex" Brotherton ('37 Bus. Adm.), 85, December 20, 2001, Walla Walla. His father, Frank Brotherton, founded a Walla Walla car garage in 1916 that became a Chrysler-Plymouth franchise in 1933. Tex worked full-time at the dealership after his father's death. Named a *Time* magazine quality dealer in 1976.

V. Lauren Shelton ('37 Bus. Adm., '42 M.A. Econ.), February 25, 2002, Bellevue. Alzheimer's disease. WSU auditor, 1948-57; comptroller, 1957-66; and vice president for finance, 1966-74. Recipient of the WSU Alumni Achievement Award in 1975.

Lawrence Wickline ('37 Pol. Sci.), 89, September 25, 2001, Fresno. Salesman and manager for Burroughs Corp., now Unysis, in Fresno for 28 years. Moved to Riverside, California. Theta Chi fraternity.

Roy "Pooch" Petragallo ('38 Gen. St.), 86, January 12, 2002, Spokane. While boxing in the 118-pound division, he won Pacific Coast Intercollegiate titles (1935 and 1937); the Idaho (1933), Washington (1936), and Pacific Coast (1936) Golden Gloves championships; and the NCAA championship (1937).

Won 112 of 115 intercollegiate matches, avenging each of the three losses before his career ended. Inducted into the State of Washington Athletic Hall of Fame in 1962, the Inland Empire Sports Hall of Fame (Spokane) in 1974, and the WSU Athletic Hall of Fame in 1980. Successful soft-water businessman in Spokane, and Coeur d'Alene, Idaho.

1940s

Max Beard ('40 Gen. St.), 90, December 20, 2001, Silver Spring, Maryland, heart failure. In 1942, he joined the Navy's Bureau of Ordnance in Washington, D.C., as its first photographer. Established a photographic lab and procedures which helped in the development of aircraft-launched torpedoes, underwater mines, and ocean mine depth charges and fuses. U.S. representative to the International Congress on High-Speed Photography for 10 years. Life fellow of the Society of Motion Picture and Television Engineers. Employed 30 years by the Federal government. Split time between homes in Glacier National Park in Montana and Silver Spring for the next 29 years.

James Maston ('40 Bact.), 85, November 24, 2001, Colfax. Army Public Health Officer. Later owned Top Notch Cafe in Colfax. Retired in 1985.

Ruth Zier Adams ('41 Music, '41 Educ.), 83, December 13, 2001, Spokane, open heart surgery complications. Founded Pullman Montessori School in 1968. Retired to Pacific Beach in 1974. All five immediate family members graduated from WSU.

Asa "Ace" Clark ('41 Agri.), 83, January 18, 2002, Albion. Air Force pilot during WWII. Returned to Pullman-Albion area in 1945 to farm with his family. President of the Kappa Sigma fraternity. His father, Asa Clark, played on WSU's 1916 Rose Bowl team, and a building on the WSU Pullman campus is named after him.

William Humphrey ('41 Elect. Engr.), 84, February 2, 2001, Bothell. Engineer for Austin Co. for 24 years. Retired in 1980.

Darwin Nealey ('41 Ag. Engr.), 82, January 21, 2002, LaCrosse. Worked for Army Corps of Engineers in Walla Walla after WWII. Returned to family farm in Rosalia in 1948. Moved to LaCrosse in 1978. Held a seat in the Washington State House of Representatives, 9th District, for five terms, 1982-1992.

Irene Luelloff Towne ('41 Music), 81, June 30, 2001, Kennewick, cancer. Employed by Reynolds Aluminum Co. in Longview in 1941. In 1954, involved with the family business, Irrigation Equipment Supply Co., in Pasco. Wrote a history of churches in the Tri-Cities.

Frances Penrose Owen dies March 9 at 102

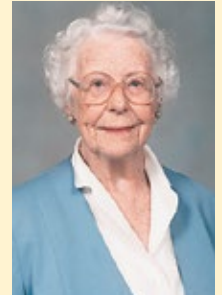
FORMER WASHINGTON STATE UNIVERSITY REGENT Frances Penrose Owen died March 9, 2002 in Seattle. She was 102.

Governor Albert Rosellini appointed WSU's first woman regent to the board in 1957. She served for 18 years and was twice elected president. In 1979, WSU's new science and engineering library was named in her honor.

Eleven years later, when Mrs. Owen was presented with the Medal of Merit, the state's highest award, WSU president emeritus Glenn Terrell said, "Frances is a rare combination of strength, gentleness, intelligence, and forcefulness."

Mrs. Owen's life was filled with service. She was elected to the Seattle School Board in 1945 and served until 1967. During her 22-year tenure, she was president four times. The Frances Penrose Auditorium at Seattle School Board headquarters was named for her in 1989. She also was on the board of Children's Hospital in Seattle for 36 years, where she served as trustee president and chair of the building committee.

The Walla Walla native was a magna cum laude graduate of Whitman College, where her father, Stephen B. L. Penrose, was president for 40 years. She held a master's degree in education from Harvard. After working for Frederick & Nelson department store in Seattle for a decade, she retired as personnel manager and married Henry B. Owen. Her daughter, Frances Pease of Tigard, Oregon, says, "Mom had so many wonderful experiences at WSU she cherished."



Frances Penrose Owen

Carl Beckley ('43 Mech. Engr.), 82, November 21, 2001, Benge. Worked on family farm and operated Beckley Seed Ranch. Manufactured plot-harvesting combines for use at the WSU Lind Dryland Experiment Station.

Mark Youell ('45 Gen. St.), 76, January 13, 2001, Pullman. Worked for Standard Breads in the bakery and restaurant division. Later managed Ace Concrete Co. in Moscow, Idaho. Owned Alice's Restaurant in Missoula, Montana. Worked for Eagle Hardware in Lacey.

Dorothy Mitchell Brame ('47 Fine Arts), 77, November 25, 2001, Issaquah. Taught in high schools in Bellevue, Hillsboro, Oregon, and San Rafael, California. Docent at the Seattle Fine Arts Museum, 1951-59; at the Fine Arts Museum of San Francisco, 1964-81; at the Colorado Fine Arts

Center in Colorado Springs, 1982-95; and at the Bellevue Art Museum, 1997-99.

Gordon Livengood ('47 Polit. Sci.), 80, August 18, 2001, Kirkland. Practiced law for nearly 50 years with Powell & Johnson in Kirkland and Bothell. The firm is now known as Livengood, Carter, Tjossem, Fitzgerald & Alskog.

Quentin Jones ('48 Agri., M.S. '50 Botany), October 26, 2001, Lancaster County, Pennsylvania. Worked at the USDA Plant Industry Station in Beltsville, Maryland.

G. Kay Kaiser ('48 M.S. Phys. Educ.), 80, October 26, 2001, Sumner. Taught in women's physical education at WSU while working on her master's degree. Later taught P.E. in high schools at Tenino and Ridgefield and 12 years at Fife High School. Helped her husband, Duane, manage the Green Branch

IN MEMORIAM *continued*

Ranch Christmas Trees Farm in Tacoma. Honorary lifetime member of the Puget Sound Christmas Trees Association.

Max Nicholls ('49 D.V.M.), 81, December 30, 2001, Redmond, heart failure. Started the Redmond Animal Clinic in 1949. Opened the Blue Spruce Clinic in Redmond in 1957. Practiced veterinary medicine until last December, making rounds with an oxygen tank strapped to his back. Contributions in Dr. Nicholls's name may be made to the WSU College of Veterinary Medicine, P.O. Box 647010, Pullman, Washington 99164-7010.

1950s

Nancy Roberts Bennett (x'50), 73, December 28, 2001. Active in the Republican Party. Ran the office of Governor Dan Evans during his reelection campaign in 1972. Ran for the Washington State Senate in 1974 and for the Washington State House in 1978. Lobbyist for the City of Spokane, 1978-81.

John Lawson ('50 Animal Sci.), 73, December 27, 2001, Kent, heart attack. Graduated from University of Washington Law School, 1957. Redmond city attorney for 20 years. Appointed to a vacancy in King County's Northeast District Court and won the seat in subsequent elections. After 11 years, changed to pro-tem assignments, filling in while other judges were unavailable.

Robert Wallenstien ('50 Agri. Educ., '68 Ed.D.), 80, February 6, 2002, Moses Lake. Awarded a Presidential Unit Citation and an Air Medal with Oak-Leaf Clusters for his Navy service during WWII. Taught at Kalama High School and Centralia Junior College. Dean of instruction at Spokane Community College, 1965-68. President of Big Bend Community College, 1968-77, where the performing arts building is named after him.

Richard Ballard ('51 Agri.), 74, November 7, 2001. Moved to Moses Lake in 1954 to be a field man for U & I Sugar. Later sold fertilizers and agricultural chemicals, managed a large irrigated farm, and retired in 1995 as manager of the Puregro Co. in George.

Jack Hochhaus ('52 Hort.), 73, October 1, 2001, Ridgefield. Worked for Allied Signal Co. for 25 years until 1981. Sales representative for Wolfkill Feed & Fertilizer in Monroe for 10 years.

Dale Blair ('54 Phys. Ed.), 69, November 15, 2001, Elk. Taught at Kahlots and Waterville High Schools, and then taught biology and coached numerous sports at North Central High School in Spokane for 27 years. Retired in 1987.

Whitney Smith, ('54 Material Sci. and Engr.), 70, January 28, 2002, Bellevue.

Employed 37 years by Boeing. Highlights of his career include working on such projects as the Saturn booster, Apollo, Jetfoil, and International Space Station.

Darlene Braune ('56 Home Ec.), 68, January 6, 2002, Spokane, heart condition. Retired from the Washington Water Power Co. in 1983.

Roy Henderson ('57 Police Sci.), September 17, 2001, Clinton, Alzheimer's disease. Retired in 1979 from the U.S. Border Patrol.

Donald Peterson ('58 Arch. Engr.), 69, January 5, 2002, Arlington. Had a successful career as an architect and in other business ventures.

Hazel Crowder Southworth ('58 Music), 65, December 16, 2001, breast cancer. Spent 17 years with the Boulder Philharmonic Orchestra. Accountant for two family-owned businesses, including an art gallery and frame shop.

1960s

Curtis Franklin ('60 Elect. Engr.), 70, May 4, 2001, Livermore, California, ALS disease. Worked at Sandia National Laboratories as a systems engineer for 25 years. Retired in 1985.

Dorothy Halvorson ('62 M.A. Home Econ.), 82, January 20, 2002, Pullman. Moved to Pullman in 1957 with her husband, Al, from Lafayette, Indiana. After graduating from WSU, she became a WSU Home Economics staff member, where she did food research and taught lab classes.

Marsha James ('66 Clothing and Textiles), 58, October 10, 2002, Coeur d'Alene, Idaho. Worked for the Ellensburg newspaper before becoming an extension agent in Wenatchee. Pursued interest in interior design in Olympia before moving to Spokane in the 1970s. Edited Rosauer's magazine, *Aisle One*, until 1987, when she moved to Hawaii. Returned to Spokane and Coeur d'Alene area. Delta Delta Delta sorority.

1970s

Shelley Bauguess ('74 Educ.), 49, November 19, 2001, Longview. Vocational rehabilitation counselor for 20 years.

Glenn Jarstad ('74 Wildlife Bio., '81 M.S. Forest & Range Mgmt.), 80, January 27, 2002, Bremerton. After WWII, purchased Toy and Glenn's Food Center in Bremerton. Elected mayor in 1964 at the age of 42. Held the office through four terms, the city's longest-serving mayor. During his 16-year term, he built the paramedic program, increased parkland from 100 to 400 acres, and helped pass a bond to build a city pool, which is named after him.

Gregory Colburn ('75 Pol. Sci.), 48, December 24, 2001, Payette, Idaho,

car accident. Counselor for the Department of Social and Health Services in Colville. Later was the director for Children's Services in Ontario, Oregon. Was recently auditor for Boise State University.

Margaret Seigneuret ('75 M.S. Bact.), 61, December 5, 2001, Kirkland, lung cancer. Had a distinguished and lengthy career in cancer and drug research. Research technical supervisor at the Fred Hutchinson Cancer Research Center in Seattle.

Lori Arthur-Morman ('76 Rec.), 47, November 26, 2001, Coeur d'Alene, Idaho. Became director at the Playcare Center in Puyallup before moving to Korea in 1978 as recreation center director for the U.S. Army at Camp Aimes. In 1979, moved to Centralia as city recreation director. In 1981, moved to West Germany with husband and worked for many Army bases as athletic director. Settled in Coeur d'Alene in 1988.

Robert Odne ('77 Finance), 49, September 22, 2001, Tacoma, brain tumor. Cost accounting supervisor at Boeing for 23 years.

Scott Thorson ('77 Hist.), 46, November 12, 2001, Vancouver. Worked construction and traveled around the country. Member of the Heat and Frost Insulation Union.

Joseph Reshey ('79 M.S. Physics), 48, November 23, 2001, Portland, Oregon. Engineer for Tektronix in Portland, 1980-1997.

1980s

Georgia Bakke ('85 Mech. Engr.), 42, January 31, 2002, Edmonds. She and her husband, Lawrence Duff, died in a backcountry avalanche while skiing in the Selkirk Range in Canada. She tested backpacking stoves for Mountain Safety Research in Seattle. He was a paralegal.

1990s

William Stowell ('92 Comm.), 32, December 15, 2001, Bainbridge Island. Returned to the Puget Sound area last year after five years in Chicago.

Faculty & Staff

Edna Young, 101, January 2, 2002, Pullman. Moved to Pullman in 1937 after teaching for 13 years in Illinois, Florida, and Wyoming. Worked in the WSU Registrar's Office for eight years. Attended all WSU home football and basketball games for 55 years.

Frank Kottke, 88, February 14, 2002, Spokane. Earned a Ph.D. in economics from Columbia University in 1940. Taught at Rensselaer Polytechnic Institute, 1938-42, and University of North Carolina, 1946-51. Employed by the Federal Trade Commission in Washington, D.C., to work on enforcement of

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laws directed at control of monopoly powers. Joined the WSU faculty in 1961. Researched and taught courses in industrial organization and advised graduate students. Published a book, *The Promotion of Price Competition Where Sellers Are Few*, in 1978. Retired in 1979.

Adolph Hecht, 86, December 4, 2001, Lacey. Joined WSU faculty in 1947. Eventually became the chair of the biology department. Specialist in botanical genetics and taxonomy. Fellow of the American Association for the Advancement of Science. Retired in 1979.

Glen Oman ('47 Bus. Adm.), 82, February 18, 2002, Spokane. WSU athletic department business manager and assistant director for 32 years. Retired as associate athletic director in 1981. Received the WSU Alumni Achievement Award in 1983.

H. Paul Castleberry, 80, February 1, 2002, Moscow, Idaho. WSU political science professor, 1949-82. Fulbright lecturer on international relations at American University in Cairo, Egypt, 1953-55. Conducted research and wrote on continuing problems of American national government, United States, and international organizations in Washington, D.C. and New York.

James "Jack" Mattoon, 78, October 30, 2001, Moscow, Idaho. Helped

his father operate the *Uniontown Journal*. Later worked for the *Idahonian*, 1948-57. Supervisor of the composing room in the WSU print shop. Retired in 1982.

Grover Krantz, 70, February 14, 2002, Port Angeles, pancreatic cancer. Joined the WSU anthropology department in 1968 and lived in Pullman until his retirement in 1998. Known best publicly for his 34 years of research on the existence of Sasquatch. He was one of the world's leading authorities concerning the evolution of hominoids. Published 10 books and 60 articles.

Randall Spicer, 87, March 4, 2002, Pullman. Director of bands and professor of music at WSU from 1953 until he retired in 1977. Ran high school summer camp for musicians at WSU for many years. Past president of the Northwest College Band Directors' Association and member of the Colorado and Washington Music Educators Hall of Fame. Guest conductor and clinician in 28 states and three Canadian provinces. Contributor to many music publications. One of the floors in the Rogers residence hall at WSU was named "Spicer Music House" in his honor. Remembrances may be sent to the Randall and Lucille Spicer New Talent Award, School of Music and Theater Arts, PO Box 643632, Pullman, Washington 99164-3632.



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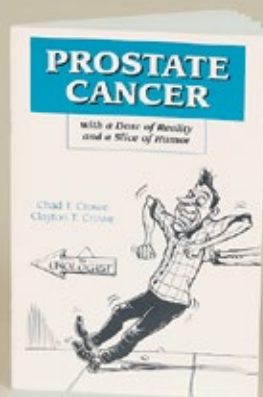
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BOOKS



Prostate Cancer with a Dose of Reality and a Slice of Humor

By Chad T. Crowe and Clayton T. Crowe
Published by Brenda Syre Crowe, Portland, Oregon

One in five men in the United States will be diagnosed with prostate cancer sometime in their lives—and as many as 170,000 this year. Clayton T. Crowe of Pullman was diagnosed in 1997. Soon after, he began asking doctors and urologists questions—a lot of questions—regarding the diagnosis and possible courses of action. He wanted second and third opinions. And he read as much as he could about the disease.

Fortunately for readers, Crowe shares what he's learned first-hand about prostate cancer and treatment—he underwent a radical prostatectomy—in a 26-page book, *Prostate Cancer—with a Dose of Reality and a Slice of Humor*.

Crowe is professor emeritus of mechanical engineering at Washington State University. The book is co-written and illustrated by his son, Chad T. Crowe, a professional cartoonist in Portland.

Their intent, the authors say, is not to make light of the disease. After all, it's second only to lung cancer as a cause of death among men. Instead, they hope the book will enable men diagnosed with prostate cancer to be more open about their concerns and feelings.

The book's humorous approach to its subject not only helps break down communication barriers between patients on the one hand and doctors and family members on the other, it also helps patients cope better. Some believe humor aids the healing process.

"I applaud efforts to broaden prostate cancer awareness," says Pullman urologist John J. Keizur, "and what better way to expose this insidious disease than through comedy?"

Sections of the book are devoted to such factors as age, race, and dietary habits that increase

the likelihood of prostate cancer. The authors also look at various treatments, including radiation, implantation of radioactive seeds, and surgery, as well as post-surgery issues.

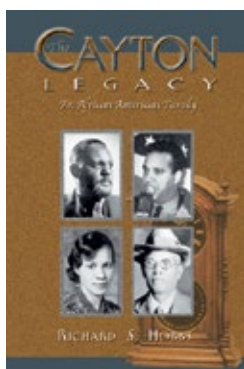
For information contact Chad Crowe Illustration, 4882 SW Slavin Road, Portland, Oregon 97201 or www.chadcrowe.com.

The Cayton Legacy: An African American Family

By Richard S. Hobbs '69, '71
Washington State University Press

Set in Seattle, San Francisco, Chicago, and New York, *The Cayton Legacy* chronicles the evolution of a remarkable African American family. From the Civil War to the present, generations of the Horace and Susie Cayton family helped illuminate the black and white experience and the troubled course of race relations in the United States.

The Caytons sought to define themselves in relation to their family traditions and to society as a whole. In the process, the distinguished family attained financial success and influence, both regionally and nationally. Family members published newspapers, wrote books, and were elected to public office. They worked for



civil and human rights and established important relations with prominent black and white community leaders in America.

Family members also faced racial discrimination, business failures, and even poverty. They fought personal

battles against alcoholism, depression, and drug addiction. Despite these obstacles, the power of the family legacy—of being "a Cayton"—spurred them on to significant contributions and high achievements.

The Caytons speak with deep insight about society, helping to sharpen our understanding of the past and enhancing our sense of individual and collective identity today.

Author Richard S. Hobbs ('69 Hist., '71 M.A. Hist.), a historian, archivist, and researcher, is a Whidbey Island resident.

Pulitzer Prize-winning author Studs Terkel, who interviewed one of the Caytons on his radio show in 1968, has high praise for the book. "This is an extraordinary memoir of a remarkable African American family in whose lives is the saga of a race's hopes, dreams, and triumphs. It is a hymn to grace under pressure."

The Restless Northwest

By Hill Williams
Washington State University Press

In *The Restless Northwest*, former *Seattle Times* science writer Hill Williams provides a fascinating overview of the geological processes that shaped the Northwest.

An attraction of the region is its varied terrain, from the volcanic Cascade mountain range to the flood-scoured scablands of eastern Washington and the eroded peaks of the northern Rockies. The vast differences, Williams notes, are the results of the collision of the old and the new. The western edge of Idaho was once the edge of ancient North America. As eons passed, a jumble of islands, minicontinents, and sediment piled up against the old continental edge, gradually extending it west to the present coastline.

Figuring out how and when these various landforms came together to create the Northwest took much geological detective work.

Unlike many geology books that focus on rocks, *The Restless Northwest* emphasizes the human drama of geology. The narrative includes firsthand accounts of people involved in the exciting geological discoveries of recent years.

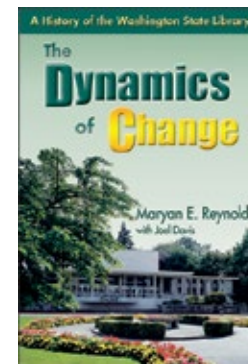
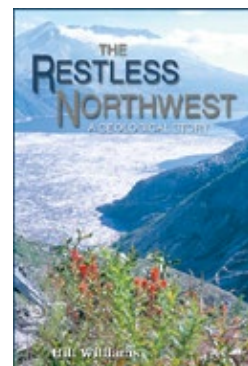
The author enlivens the story of ancient geological events with fascinating asides on everything from enormous undersea tube worms to the Willamette meteorite, the largest ever discovered in the United States.

General readers will find Williams's prose refreshingly free of scientific jargon and easy to understand.

The Dynamics of Change: A History of the Washington State Library

By Maryan E. Reynolds with Joel Davis
Washington State University Press

Who better to write about the Washington State Library than Maryan Reynolds, state librarian from 1951 to 1974? She also played an important role in procuring the State Library building constructed in 1959 on the Capitol grounds in



Olympia. The library moved to Tumwater late last year and was opened to the public January 2, 2002 in its new location.

The Dynamics of Change is an original and valuable history of the Washington State Library from its territorial beginnings in 1853 to the late 1990s. Reynolds provides a personal account of the library's expansion since the 1940s, when she joined the staff.

The author chronicles the development of this important state public service and describes how the library facilitated the effective operation of state government. She recounts the efforts to develop a public library statewide that also serves people outside the mainstream. The library preserves a record of contributions of outstanding Washingtonians whose vision and dedication made them pioneers in their respective fields.

For example, Isaac Stevens, first territorial governor (1853-57), donated his personal library to found the Washington State Library. He had been involved in railroad surveys and Indian affairs, and he established the territorial government. For many years, the library was intended for the exclusive use of the state legislature, but by the early 20th century it was opened to Washington citizens. That role was particularly expanded after World War II under the direction of Reynolds.

Reynolds' book is a valuable resource for studies on state government, the development of the state library system, and the leading role women have played in establishing technologically sophisticated and nationally acclaimed library services for Washingtonians.

NEW AND NOTEWORTHY

Anita's Legacy

By Gurpur M. Prabhu '83
Vireh Publications. Ames, Iowa

In his first foray into fiction, Gurpur M. Prabhu ('83 Ph.D. Comptr. Engr.) offers unusual patterns of thought that show religion and science share a common ground. A substantial portion of the novel also reflects the philosophy of his father growing up in India.

The Juvenile Justice System: Law and Process, 2nd Ed.

By Mary J. Clement '77
Butterworth Heinemann. Boston, Oxford, Auckland, Johannesburg, Melbourne, New Delhi

Blending theory, practice, case law, and procedure, this textbook by Mary J. Clement ('77 Ph.D. Sociology) would be equally at home in the hands of students, case workers, legal professionals—and even general readers interested in how our justice system deals with crimes committed by and against juveniles. A companion Web site (www.bh.com/companions) offers such goodies as a sample chapter, an agency list, and a juvenile law dictionary covering everything from “abused child” to “zone of privacy.”



FOOTBALL SEASON OPENS AUGUST 31 IN SEATTLE

Washington State University will entertain Nevada in the first collegiate football game in the new 68,000-seat Washington State Football/Soccer Stadium, home of the Seattle Seahawks. Kickoff is set for noon, Saturday, August 31. WSU plays 13 games this year.

“From the University's standpoint, we need a major presence in the Seattle area every year,” said WSU athletic director Jim Sterk. “This game will give us that presence unlike any other event.”

More than 35 percent of WSU's alumni make their home in the Puget Sound region, which is home for 65 percent of the current students attending WSU.

For ticket information call 1-800-GOCOUGS, option 3.

CALENDAR OF EVENTS

JUNE

- 5 Ground-breaking for new Murrow Communication Center addition
- 9 Eight-week summer session begins

AUGUST

- 23-24 National Lentil Festival, Pullman
- 26 Fall semester begins
- 31 WSU vs. Nevada football game, Washington State Football/Soccer Stadium, Seattle

SEPTEMBER

- 6-7 WSU Alumni Board of Directors meeting, Pullman

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Steve Sheppard - an entomologist, studies insects

Early beekeepers discovered when a bee has come upon a good supply of flower nectar anywhere, on its return it makes this known in a peculiar way to the others.



Bees have two basic dances. They do a "round dance" if the food is close by.



Dancing in circles means "the food is right outside; just go look."

If the food is farther away, the bee does a waggie dance.



The bee's body points to where the food is in relation to the sun - toward or away from the sun. Or at an angle. The number of times it waggles its abdomen indicates the distance.



However, it's **PITCH DARK** inside the hive, so the bees cannot see the dance. Rather, they **HEAR** the vibrations with their stereo antennae!

An Enduring Legacy

FROM A BELOVED MEMBER OF THE SPOKANE COMMUNITY

Denice “Denny” Anne Murphy was a woman whose philosophy inspired all who knew her: find joy in life, make something strong and share it, practice empathy, and always deliver your very best.



The late Denice Murphy's legacy to Washington State University includes endowments for nursing and student athletes.

When she passed away on October 9, 2001, Denny left an enduring legacy that reflects her exceptional outlook. More than a thousand people in Spokane can attest to her advocacy for the poor, her grace and resilience in the face of disease, her love of family and friends, and her devotion to her career as a nurse and educator. Den-

ny's advocacy for others led to her receiving in 2000 the prestigious Sister Peter Claver Award, which recognizes those who exemplify the spirit and commitment of the former Sacred Heart Medical Center administrator.

In her will, Denny created something that advances and expands the causes about which she was passionate. In hon-

oring her bequests, Denny's husband, Tim Murphy ('66 B.A. Liberal Arts), along with their children, Molly, Megan, and Joseph, are establishing two Washington State University endowments that reflect Denny's spirit of giving. One provides funding for service and education projects in the WSU College of Nursing, where Denny served on the Community Nursing faculty from 1983 to 1994. The second endowment reflects the family's interest in Cougar athletics by supporting programs and services that help WSU student athletes obtain their degree.

WSU associate professor emeritus Jan Holloway, a friend and former colleague, said the nursing endowment is a legacy to Denny's "love of education and providing service to the underserved." Preference is given to service projects for community nursing, the poor and medically underserved, and those affected by breast cancer. These areas received considerable attention from Denny, who was honored by her faculty peers in 1994 with the Jan Holloway Award for Excellence in Clinical Instruction—a public acknowledgment of her work with students who learned valuable lessons in community health nursing by tending to the health care needs of the low-income and elderly.

These endowments are a legacy to Denny Murphy's indomitable Cougar spirit—reflected in her desire to help students further their education and to encourage others to use their time and skills to aid the less fortunate.

a THOUSAND WORDS Photograph by Robert Hubner



SHOE TREES: More than 150 pairs of shoes, their laces knotted together, have found a final resting place in two trees in front of Delta Sigma Phi fraternity. They are heaved there each December 10 just before dinner to mark Founder's Day of the national fraternity that dates back to 1899. The Washington State University chapter was established in 1949. The fraternity's house has been in its present location on Oak Street since 1968. No one knows how the tradition started nearly 25 years ago at WSU. But those who give up their shoes, eat steak. Those who don't, eat weenies.

Being Involved:

FOR THIS COUPLE, IT'S A MATTER OF POTENTIAL

Mark and Patricia “Patt” Suwyn had been married two years and had a year-old son when they came to Washington State University to complete their education. They arrived from Hope College in Holland, Michigan, where Mark earned his undergraduate degree and Patt studied elementary education.

At Washington State, Mark (Ph.D.’67 Chemistry) and Patt (B.A.’67 Education) worked to complete their degrees quickly. The flexibility and closeness of their professors allowed them to focus on reaching their academic goals.

Their careers took them to the East Coast at first, but upon moving to Portland, Oregon, they reconnected with WSU and the Washington State University Foundation. Mark and Patt’s generosity is expressed both in their giving and their devotion of time and energy to the University. They became Benefactors in September 2001 and currently serve as co-vice-chairs of the Foundation.

Their involvement with WSU stems from a desire to give where their investment of time, energy, and enthusiasm—as well as capital—can make a fundamental difference. In



Mark and Patricia “Patt” Suwyn are Benefactors of Washington State University and co-vice-chairs of the Washington State University Foundation.

their view, WSU is such a place. Mark observes, “There is enormous potential to leverage support from the private sector. It is very important we utilize that potential. The impact of alumni and friends who step up and give to WSU is going up radically.”

This philosophy leads Mark and Patt to support the Dean’s Excellence Fund in the College of Education. In addition, their life-long interest in education and deep concern for youths who face special challenges inspired them to support Eclipse, a joint program between the college and Pullman High School for academically and socially challenged youth that offers WSU students unique opportunities to gain skills in dealing with such students. “We talked to instructors

in the Eclipse program and looked at the difference they are making for at-risk youths. We had to get involved,” Mark says.

The Suwyns enjoy the shared sense of family, enthusiasm, and interest that makes their involvement with WSU so rewarding. In Mark’s words, “These are quality people with a truly giving spirit in terms of their desire to move things forward. Now more than ever, their ideas and support are needed for WSU to realize its great potential.”

"I believe a key to teaching history is the ability to transport students back in time. By dramatizing history, and by giving students images to illustrate conceptual points, the leap into the past may be easier and more memorable. Without the funds from this award, it would be financially difficult for me to create the multimedia presentations and perform the research that facilitates my efforts to immerse students in the American past. I am extremely appreciative of the opportunities this professorship provides for my teaching, and my research and writing as well."

—LeRoy Ashby



LeRoy Ashby, the Claudius O. and Mary W. Johnson Distinguished Professor of History, is the only person named Washington Professor of the Year twice, in 1990 and 1993, by the Council for Advancement and Support of Education.

What's Your Legacy?

Claudius O. and Mary W. Johnson devoted more than 40 years to Washington State University as educators, advisors, and scholars. The Claudius O. and Mary W. Johnson Distinguished Professorships in History and Political Science were established through a bequest in Mary W. Johnson's will—a legacy to ensure that the Johnsons' support of Washington State University continued beyond their lifetimes.



A bequest to fund scholarships, endow professorships, or support other University priorities will allow you to leave a lasting mark of your own on the future of Washington State University.

For more information on bequests, contact the Gift Planning Office, Washington State University Foundation, PO Box 641042, Pullman, Washington 99164-1042, 800-448-2978, gift-planning@wsu.edu, <http://catalyst.wsu.edu/giftplanning.asp>