

CONNECTING WASHINGTON STATE UNIVERSITY, THE STATE, AND THE WORLD • FALL 2002

Washington State

m a g a z i n e



COVER
STORY

Bulbs for the World • GMOs for Dinner • You Can Be Top Dog • Thames Voices



Go for a long drive.



UNLIMITED
GOLF PACKAGE


\$298*

FROM

MENTION RATE CODE: GO COUGS

Travel to a Northwest golf resort like no other, where you can tee off against a backdrop of windswept beaches and majestic evergreens. And now through October 20, 2002, members of the Washington State University Alumni Association can enjoy unlimited golf on our 18-hole championship course. Our package also includes deluxe guest room accommodations and complimentary golf cart. *For reservations, call 1-800-452-2300 or visit westin.com/salishan.*

THE WESTIN SALISHAN
LODGE & GOLF RESORT
Gleneden Beach, Oregon

Member of  Starwood Preferred Guest™ program

* Per room, per night, based on double occupancy and availability. A limited number of rooms may be available at these rates. Rates are exclusive of tax, applicable fees and gratuities. Some additional restrictions and blackout dates may apply. Advance reservations required. Valid through 10/20/02. Not responsible for omissions or typographical errors. © 2002 Starwood Hotels & Resorts Worldwide, Inc.

The Right Prescription



Forks, Chinook Pharmacy
Stan ('76) & Linda Peterson

Langley, Lind's Drug
Ron ('66) & Pam Lind

Freeland, Lind's Drug
Ron ('66) & Pam Lind

Snohomish, Kusler's Pharmacy - Janet Kusler ('80) & Mary Pat Connors

Edmonds, Five Corners Pharmacy, Inc.
Tim ('78) & Kristy Evans ('78)

Mill Creek, Mill Creek Pharmacies
John Oftebro ('65)

Kirkland, Juanita Bay Pharmacy
Donald W. Hanson ('74)

Hoquiam, Crown Drug
Greg Grun ('78)

Raymond, Raymond Drug
Ron Brummel ('71)

Ilwaco, Long Beach, Ocean Park, Peninsula Pharmacies
Tom ('85) & Sue Sutherland Freese ('77)

Arlington & Cumulus Park Pharmacy
Dale Duskin ('72)

Marysville, QuilCeda Pharmacy
Dale Duskin ('72)

Davenport, Lincoln City Pharmacy
Tom Paul ('73)

Owl Pharmacy
Fritz McGinnis, ('71)
Cheney Medical Lake

Fairfield, Owl Pharmacy

Spokane, Lidgerwood Owl Pharmacy
Fritz McGinnis, ('71)

Spokane, Sixth Ave. Medical Pharmacy - Jerry Stocker ('55)

Spokane, Valley Mission Homecare Pharmacy
Bob ('65) & Mary Lou Redmond

Spokane, Jones Pharmacy
Doug Crafton ('78) & WD Evans

Clarkston, Wasem's Drug
Clifford ('51) & Rick Wasem ('80)

Seattle, Kelley-Ross Pharmacies
John Oftebro ('65)

Seattle, Sand Point Pharmacy
Seattle, View Ridge Pharmacy
Seattle, Northaven Pharmacy
Seattle, The Pharmacy at the Mount
Holly Whitcomb Henry ('78)

Seattle, Briggs Pharmacy
Holly Whitcomb Henry ('78) & Michael Henry



Brought to you by
**LOCAL INDEPENDENT
PHARMACISTS**
WSU GRADUATES

features

22 **Bulbs and Blooms**

by Pat Caraher • photos by Laurence Chen

"Roozen" may mean "roses" in Dutch. But in Washington, it means tulips—to the tune of 50 million a year.

27 **FALL IS THE TIME TO PLANT BULBS**

by Tonie Fitzgerald • photos by Larry Hufford

Another approach to perennials is to go back to basics—native plants.

28 **What's in it for You?**

by Tim Steury • illustrations by David Wheeler

If you think scientists all agree on genetically modified foods, think again.

36 **Blackwell Makes his Mark**

by Pat Caraher

James Blackwell helped establish the clout of black sociologists. This spring he returned to Pullman to receive the University's highest honor.

38 **Ain't Misbehavin'**

by Mary Aegerter • photos by Robert Hubner

If you're not the leader of your pack, you may want to give Catherine Ulibarri a call.

field notes: London

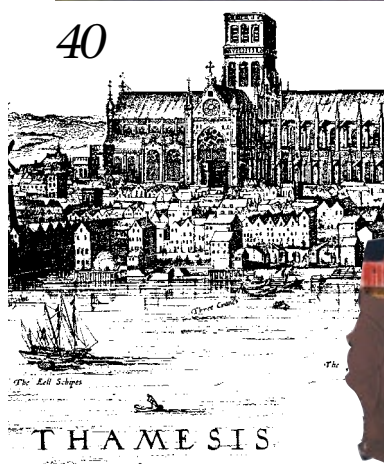
40 **Thames Voices**

by Will Hamlin

As a literary scholar wanders London's streets, he can hear the doubts and questions and skeptical musings of the 16th-century stage.



LAURENCE CHEN





22

panoramas

- 4 Letters
- 6 Small and smaller
- 7 Dancing for the gods
Smith Center
- 8 One hot link
- 10 PERSPECTIVE: It takes a village to raise an engineer
- 11 Killer compost
- 12 SPORTS: Basketball and football
- 14 CAREERS: Paying it forward
- 15 "Why do you believe this?"
Alex Kuo wins American Book Award
- 16 A COMMON READER: Overcoming inertia
- 17 Keeping our food safe
- 18 Mom of the Year
Killing the messenger
- 19 The survey expert
Students join Cyprus to tackle hunger
- 20 Spokane Health Sciences Building

tracking the cougars

- 44 CLASS NOTES • IN MEMORIAM
- SHORTS Alumni Achievement Award
- The Appel legacy
- Whispered prayers
- Each on his own merits
- Giving others hope
- Grad alums are honored
- Cougar matryoshka dolls
- Long-distance driver

54 *books, etc.*

60 *a thousand words*

photographs by Robert Hubner and Shelly Hanks



38



WashingtonState

m a g a z i n e

VOLUME 1, NUMBER 4, FALL 2002

WORLD WIDE WEB: washington-state-magazine.wsu.edu

Senior Editor, Patrick J. Caraher '62

Editor, Tim Steury

Associate Editor, George Bedirian

Art Director, Jo Savage '70

Photographers, Shelly Hanks '88, Bob Hubner

Contributors

WRITERS: Mary Aegerter, Sheri Boggs, William F. Cofer, Jim Fisher, Tonie Fitzgerald, Will Hamlin, Katie Johnson, Nella Letizia, Treva Lind, Kathie Meyer, Bill Morelock, Debra Smith, Emmy Sunleaf, Donald E. Tyler

PHOTOGRAPHERS: Laurence Chen, Rod Commons, Jeff Green, Don Hamerman, Peter Hassel, Larry Hufford, Irving Johnson

ILLUSTRATOR: David Wheeler

President, Washington State University, V. Lane Rawlins

Assistant Vice President, University Relations, Barbara B. Petura

Executive Director, Washington State University Alumni Association, Keith Lincoln '61

TO SEND THIS MAGAZINE: *Washington State Magazine* is distributed free of charge to graduates, donors, faculty, and staff of Washington State University. With a gift of \$25 or more, you can have WSM sent to someone who is not currently on our mailing list.

For details, go to

<http://washington-state-magazine.wsu.edu/send.html>

or contact Sherri Hemphill at 509-335-1686, hempfill@wsu.edu

LETTERS: *Washington State Magazine* invites letters on its content or on topics related to the University. Letters for publication must be signed and may be edited for style, length, and clarity. Shorter letters are more likely to be published due to space limitations. Writers should include an address and daytime phone number. Send all correspondence to:

Washington State Magazine

PO Box 641227

Pullman, WA 99164-1227

E-MAIL: wsm@wsu.edu

FAX: 509-334-8736

Washington State Magazine is published quarterly by Washington State University, PO Box 645910, Pullman, Washington 99164-5910. Editorial offices are located at Washington State University, Information Technology Building, Room 2013, Pullman, Washington 99164-1227.

Board of Regents, Washington State University ©2002.

Alternate formats will be made available upon request for persons with disabilities.

ADVERTISING: For information about advertising in *Washington State Magazine* contact Syndi Ellison, advertising manager, at 509-335-7628, ellison@wsu.edu, or go to washington-state-magazine.wsu.edu

CHANGED YOUR ADDRESS?

Please send current address information to hempfill@wsu.edu, or call 509-335-1686. Thank you!

LETTERS

Great Coaches

Dear Editor:

THE BILL MORSE LETTER [Summer 2002 WSM] about Coach Friel immediately brought to mind two other great coaches of the Friel era.

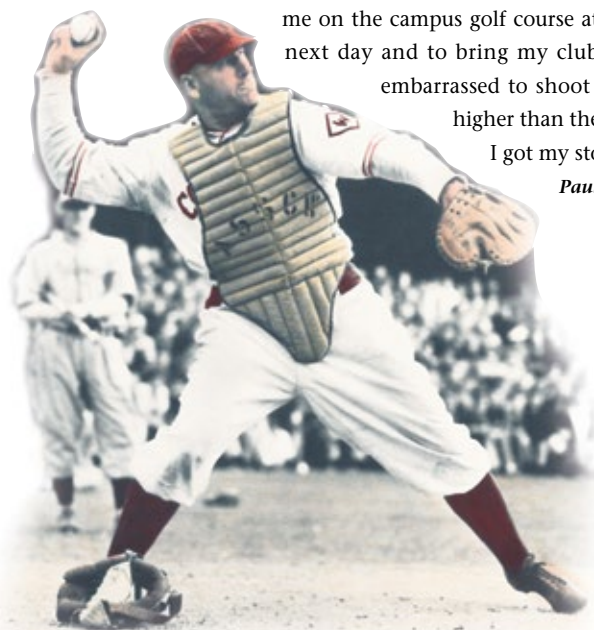
After May 1943 graduation from Lewis and Clark High School in Spokane, I enrolled at WSC for the summer and awaited my WWII draft call which was to come in September. I joined about 100 army men entered in the Army Specialized Training Program with heavy emphasis on physics, chemistry, trig, solid geometry—and I added English. The second day on campus I found the *Evergreen* office, met the summer editor, and was given my first reporting assignment—interview football coach Orin E. “Babe” Hollingbery.

Now, at 17, having only had a tad of high-school-newspaper interviewing experience, I was to take on the supposed famous, mean, gruff, and strictly non-communicative, winningest Cougar football coach. To my pleasant surprise, the opposite of my expectation was true and remained so for the rest of my newspaper life. The higher a person was elevated by title, the easier he/she was to be interviewed for a story. That Hollingbery interview appeared on the *Evergreen's* next front page and became a part of my life's scrapbook.

The *Evergreen* editor next thought I might just be able to crack baseball coach Buck Bailey the same way. When

I called Buck for an interview he said he would meet me on the campus golf course at 10 a.m. the next day and to bring my clubs. I was not embarrassed to shoot nine strokes higher than the coach—and I got my story.

Paul E. Carter '49,
Murray, Utah



BUCK BAILEY, FROM BUCK BAILEY: THE MAKING OF A LEGEND BY WELDON B. “HOOT” GIBSON, WASHINGTON STATE UNIVERSITY ALUMNI ASSOCIATION, 1989

230798

1,000 Words

Dear Editor:

I FOUND THE "A THOUSAND WORDS" photograph [Summer 2002 WSM] by Robert Hubner interesting.

I used to teach in South Central Los Angeles. Did you know that tying shoes together and throwing them up over telephone wires is a gang related sign? I believe it is worth comment that this symbol is used at WSU, since gangs are basically fraternal organizations.

Sara Chatfield, Seattle

I JUST RECEIVED THE MOST RECENT issue of *Washington State Magazine*; enjoyed it immensely.

On the last page was an image of two pairs of dingy sneakers hanging in the trees in front of the Delta Sigs. This reminded me of my own experience with cast-off shoes while I was deployed in Southwest Asia as part of Operation Southern Watch, part of the coalition enforcement of the Southern No-Fly Zone in Iraq.



Almost all of these bases are located in some of the bleakest territory one could imagine, and traveling off base except for official business is rare in these difficult times. As a result, airmen work very hard at entertaining themselves. One of those forms of entertainment is the creation of an area called Boot Hill, by tradition located at the POL (Petroleum, Oil, and Lubricants) area next to the flightline. [See photo, below.] Some are quite elaborate in their execution and display; others are low-key like the one at my base. One of the more famous Boot Hills is located at Prince Sultan Air Base in Saudi Arabia and is a regular tourist stop among airmen who deploy there.

So why a Boot Hill? Is it because these bases are part of the combat zone, that there is a frontier quality to them? Not in this case. It grew out of the desire to leave something behind and to be able to return home to loved ones once and for all. Somehow the idea/superstition got around that if you leave your combat boots at boot hill, do an about face, march out and never look back, you will never be sent back to that base. If you do look back, then you will end up returning.

*Mark Olsen, Technical Sergeant,
177th Fighter Wing,
New Jersey Air National Guard
'82 B.S., '89 M.F.A.*

Pants that Fit

Editors:

AS A WSU GRADUATE ('75 English) and the author of two books on sewing, I was delighted to read Andrea Vogt's article on Professor Carol Salusso's work with pants sizing. However, the article's assertion that dressmakers and tailors have disappeared and that custom clothing is only for the wealthy is a silly oversight. We are alive and well and fitting all shapes and sizes of bodies, and at prices that are competitive with bridge and designer, as well as luxury ready-to-wear. Most of my custom clothing customers are middle to upper middle class.

There is no substitute for a skilled hand. No sizing standard adopted to mass market ready-to-wear, no matter how elaborate, can fit the rich wealth of shapes and sizes of the human form and account for the caprice of fashion and personal fit preferences.

As consumers, we have been brainwashed by ready-to-wear advertising to buy huge quantities of cheap, poor-quality, foreign-made, ill-fitting clothing instead of a smaller number of beautifully constructed, precisely fitted, and thoughtfully engineered garments that can be worn for decades. Readers who would like to contact a custom clothier in their area can visit the website of the Professional Association of Custom Clothiers (PACC) at paccprofessionals.org

*Barbara (Huprich) Deckert,
Elkridge, Maryland
'75 English*

Author, Sewing for Plus Sizes: Design, Fit and Construction for Ample Apparel (The Taunton Press, 1999) and Sewing 911: Practical and Creative Rescues for Sewing Emergencies (The Taunton Press, 2001). Member, the Professional Association of Custom Clothiers. See p. 55 for a review of Sewing 911.



PANORAMAS

SMALL AND SMALLER

There's a limit to how small a piece of chocolate chip cookie you can have. At some point, you'll either have a piece of chocolate or a piece of cookie, but not a piece of chocolate chip cookie.

YOU RUN INTO THE SAME problem if you're trying to make smaller silicon processor chips, says Kerry W. Hipps, professor of chemistry and materials science. Eventually the chip gets too small to function as a processor.

The processor is the brain in your computer. It makes the decisions about what data should go where, including how to route input like keyboard strokes, and how to route output to hard drives and modems. It also does all the arithmetic that goes on inside your computer.

Up to now, making faster processors has happened along with a reduction in the size of their smallest building block, the transistor. If current trends continue, that'll put us in the chocolate chip cookie situation around 2010, when transistors are reduced to near the 50-nanometer-size range, says Hipps.

In order to work as processors, silicon chips contain a small number of variations in the form of atoms that either have fewer electrons than silicon atoms, such as boron, or more electrons, such as arsenic. The area of contact between these electron-rich and electron-poor regions is the transistor, the place where electrons, or electrical current, is routed through the chip or turned on and off.

When the transistors get too small to contain enough of these atoms, we'll no longer be able to

use them as processors, says Hipps. "We'll have to find another way." That way is via "nanotechnology," designing and building from the bottom up, molecule by molecule, even atom by atom.

"One nanometer is really tiny," says Hipps. One nanometer is the size of an average molecule. One nanometer is to a meter as a BB is to the width of the United States.

Working at the nanometer scale is beyond imagination for most of us, but it's something Hipps and his lab do every day. One of their main projects solves a very real problem for those working with individual molecules and atoms: how to see what they're doing and what they've done. The answer is that they use electrical energy to make pictures rather than light—in Hipps's case by using a tunneling electron microscope.

Conventional measuring techniques such as photography or even high-resolution optical microscopy see at the scale of hundreds of billions of atoms. Tunneling electron microscopes can see just one molecule, even its parts, says Hipps. They do so by detecting the flow of electrons and translating it into a picture, just as the intensity of reflected light is translated into a photograph.

By varying the voltage used to drive the current, they can determine which parts of molecules will accept electrons and which will donate them, necessary informa-



ROBERT HUBNER

Kerry Hipps delivered the 68th Distinguished Faculty Address on April 23, 2002.

tion if you are designing transistors just one molecule in size.

Building faster processors is not the only reason for nanotechnology, however. Smaller is important, because if parts are smaller, electricity travels a shorter distance, making for increased speed, of course, but also using less power. Smaller processors mean keeping the size of computers down, so that increasingly powerful computers will continue to fit on your desktop.

"Building smaller will allow us to go where no machine has gone before," says Hipps. He envisions the possibility of nanomachines traveling inside and perhaps cleaning out clogged arteries. It also allows for the creation of materials in an entirely new manner, by designing molecules that assemble themselves into new structures. If

we could design a material with different types of molecules in close proximity to each other, we might, for example, create a fabric that detects blood flow, and then both releases an antibiotic and constricts to act as a pressure bandage.

Hipps didn't begin his scientific career looking at parts of molecules and electron movement. The technology he uses and refines wasn't in existence then. Now that it is, he's able to fulfill a long-standing wish. "I always wanted to go beyond the shapes of things and know where the electrons were going and how energy was exchanged," he says.

He also now is able to show his first-year chemistry students what many earlier students didn't believe in because they couldn't see it: one molecule. ■

—Mary Aegerter

Raji Soundararajan

DANCING FOR THE GODS

ON A RECENT spring evening, the audience at Daggy Hall was mesmerized by a rare glimpse of a complex and ancient culture. For more than two hours, Raji Soundararajan, who by day is a research associate with the Center for Materials Research, danced the magical *Bharata Natyam*.

Though obviously a rare treat, for many Indians in the audience *Bharata Natyam* was not so exotic as it was for the rest of us. Even without the excellent explanations by Mani Venkatasubramanian, associate professor in electrical engineering, they understood the stories, the rich allusion to Hindu epics danced by Ms. Soundararajan. The rest of us, including many of the younger Indians, knew little of the dance's rich history and symbolism. Still, we were seduced and delighted.

Natyam means "dance." *Bharata* derives from the name of a saint. It also indicates the elements of the dance: *bhava*, expression; *raga*, music; and *tala*, rhythm. *Bharata Natyam* is one of eight classical Indian dance traditions. Originally,

it was practiced by *devadasis*, dancing girls in temples, servants of the gods. "It is a very rich traditional dance form," says Ms. Soundararajan, "very sacred."

Ms. Soundararajan began studying *Bharata Natyam* in the fifth or sixth grade—a little late, she says. After moving to Vancouver, British Columbia, for graduate work, she continued studying under Jai Govinda, a former ballet dancer. "His lines and the geometry he forms on stage are beautiful," she says. She gave her debut performance of *Bharata Natyam* in 1998, the day before her master's defense. She is also studying under Guru A.K. Lakshman in India. He is a world-renowned teacher of the *Kalashetra* style of *Bharata Natyam*.

The dance is extraordinarily intricate and rich, depending not only on general body movement and legwork, but also on eye movements, of which there are eight specific kinds. There are also nine basic movements of the head, 10 characteristic walks, some 28 hand gestures, and 108 *karanas*, or leg movements. Then there is this

occasional curious sliding of the head from side to side, called *attami*, like a swaying cobra perhaps, a movement that seems to be used for transition and emphasis.

In spite of its complexity, the dance is entirely enjoyable to the uninitiated by virtue of the sinuous and dynamic movements of the dancer as well as the very expressive and narrative nature of the dance itself. The dance might be sacred, but it is also entertaining. And very sensuous.

Bharata Natyam is not a single dance, but a style and a tradition. Within Ms. Soundararajan's two-hour repertoire was great variety. The *Alarippu* compares the awakening of the body with the blossoming of a flower. In the 35-minute-long *Varnam*, the dancer prays and praises the beautiful son of Shiva: "Oh! Lord Moruga, when will you come to me? I have dressed and decorated myself beautifully, so please come here soon..."

And in the *Idadhu padam Tookki*, the dancer *becomes* the ecstatic Lord Shiva, the Lord of Dance. ■

—Tim Steury



Samuel H. Smith at the Center for Undergraduate Education

Right on CUE

TODAY STUDENTS are finding new ways to work collaboratively, across academic disciplines and distance, and often in ways not convenient before at WSU.

The hub of this activity is the new \$32 million Samuel H. Smith Center for Undergraduate Education. The "CUE" was designed to support "student-centered and interactive learning," says Gary Brown, director of the Center for Teaching, Learning, and Technology, one of four units housed in the five-story, 94,000 square-foot building. Other units include the WSU Writing Program, the General Education Program, and the Student Computing Services lab (SCS). The building contains 20 classrooms of various sizes, while the SCS lab has 45 workstations, a dozen wireless laptops, and capacity for an additional 33 laptop computers.

"Clearly education is not about downloading information," says Richard Law, director of WSU's General Education program. "It is about transforming and empowering people."

That is a goal of the CUE. It brings the resources of the Internet into classrooms equipped with special sound systems and viewing screens. Some rooms support two-way video conferencing, as do auditoriums seating 240 and 109.

The Writing Program expects to expand offerings and serve more students in its roomy quarters. The

CTLC is open to faculty and graduate students interested in improving their teaching strategies or in exploring innovative methods of teaching either individually or with others.

Paul Lee, professor and chair of fine arts, helped configure graphic arts workstations in the SCS lab. Now, fine arts students can work with peers in advertising, for example, on shared projects via the SCS lab. In addition, a music workstation is being developed in the SCS lab to replicate some of the capabilities of the electronic music lab in Kimbrough Hall that includes workstations connected to computers, keyboards, soundboards, printers, and digital recorders. While a number of computer labs exist on campus, Lee emphasizes the importance of a shared, multidisciplinary facility open to all students regardless of department. The lab is open until 2 a.m.

In addition to coffee and sandwiches, the Cyber Café offers Internet access via more than two-dozen computer ports, hubs for wireless computers, and an outdoor plaza.

"This is a place where students can gather, mingle, and work together," says project manager Virgil Hanson. The mezzanine floor with four stories of windows on the west side has become a "commons" area. Wide corridors throughout feature stained wood veneer. Gray basalt from a quarry near Vancouver highlights the building's brick exterior. Jost-Grube-Hall of Portland was architect, and Lydig Construction of Spokane was contractor.

The building opened in mid-January. It was dedicated in Smith's name during May 9 ceremonies. The former WSU president (1985 to 2000) is a consultant for the University, working out of WSU West offices in Seattle. ■

—Pat Caraher

ONE HOT LINK

check it out:

AARCHIVES? STUFFY. BORING. DUSTY. RIGHT? Ah, then you haven't logged on to Washington State University's Manuscripts, Archives, and Special Collections (MASC) Website. This site packs in a ton of fascination.

For sheer quirkiness and creativity, for example, nothing beats the **Frank S. Matsura Image Collection** (www.wsulibs.wsu.edu/holland/masc/xmatsura.html). A Japanese immigrant who lived in Okanogan, Washington, until his death at age 32 in 1913, Mat-

sura broke all the rules of portrait photography in pursuit of his personal vision. In the process, he revealed the souls of his subjects, whose images speak to us after nearly a century with a sometimes unsettling immediacy. I can only wonder what he would have accomplished had he lived longer.



"Leona Schaller and



"A new map of North America: shewing its principal divisions, townes, rivers, mountains, etc.," by Edward Wells, published 1701.



Two Friends," by Frank Matsura (ca. 1910).

Every one of MASC's digital collections of photographs is a world in itself. Among my favorites are the pages devoted to **Frank**

Fuller Avery (www.wsulibs.wsu.edu/holland/masc/xavery.html), who was connected to the Colville Indian Agency from 1898 to 1916; **William Delbert Barkhuff** (www.wsulibs.wsu.edu/holland/masc/xbarkhuff.html), one of the first students to enroll at WSU; and **George Ritchey** (www.wsulibs.wsu.edu/holland/masc/xritchey.html), an early Pullman resident. Each of these collections opens a window to the past. Next, check out "**Early Modern Printing 1480-1707**" (www.wsulibs.wsu.edu/holland/masc/masctour/earlyprinting/index.html), where you can view portions of MASC's largely unknown collection of early printed books, superb examples of typography and illustration. Then click to "**Celebrating Book Arts in the West**" (www.wsulibs.wsu.edu/holland/masc/masctour/bookarts/exhibit1.htm), the 1999 exhibit of artist books, fine press editions, and design bindings, to glimpse the astonishing exuberance and creativity



of contemporary book arts. Be sure to link to the J. Willard Marriott Library, University of Utah, where you can view the complete exhibit.

You don't have to

be a bibliophile to enjoy these exhibits or any of the other pages devoted to books, such as the Leonard and Virginia Woolf collection and the Walker Family Library, "possibly the first private library in the Pacific Northwest."

If you're into maps, you might enjoy the gorgeous offerings of "Early Washington Maps," where you can romp through the digital collections of both WSU and University of Washington. Aside from their historical importance, many of these maps hold their own as works of art.

Another exhibit, "First Women in Graduate Education at Washington State University," honors the pioneering women students who, "through their determination and resolve to fulfill their own educational goals, laid the foundation and set the ground rules for the women who continue to follow in their footsteps."

The MASC site also includes catalog descriptions, fascinating in their own right, but tempting lures for your next non-virtual visit to campus. The **Wildlife and Outdoor Recreation Collection** (www.wsulibs.wsu.edu/holland/masc/wildlife.htm) brings together two major private collections of books on angling and fishing lore—including a 1772 edition of Isaac Walton's *Compleat Angler*—with the personal papers of M.S. McGoldrick, Jack (John Woolf) O'Connor, Patrick "Pat" McManus, and Lee Richardson. You can link to Richardson's biography, which is worth a read in itself.



Elizabeth Margaret McKay was the first woman to receive a Ph.D. at WSC (1934).



Frontispiece from *A Treatise of Fysshynge with an Angle* by Dame Juliana Berners (1496).

So is the intro to the papers of **Lucullus Virgil McWhorter** (www.wsulibs.wsu.edu/holland/masc/McWhotr/Mcwh1.htm), an interesting character if there ever was one. A self-described "wild, rough and ready field delver" and adopted member of the Yakama Nation, McWhorter was a rancher, amateur historian, and advocate for the Nez Perce and Yakama people.

Another link takes you to "Online Books," where you'll find an html version of *The Regla Papers*, a guide to the papers of "a single extended Mexican elite family" spanning more than 125 years from the middle of the 18th century, and *Five Centuries of Veterinary Medicine*, the catalog of the **Smithcors Veterinary History Collection** (www.wsulibs.wsu.edu/holland/masc/onlinebooks/vetmed/contents.htm#contents).

You can also browse through picture books on Pullman (1911) and Coeur d'Alene (1891) and several early WSU publications. And be sure to consult *Campus Courtesy* (1929-30).

There's a lot more for you to discover in this Website. Once you dive in, I guarantee it won't take you long to associate "archives" with "entertaining," "stimulating," and "fun." ■

—George Bedirian



It Takes a Village to Raise an Engineer

In two months spent as a participant in the Boeing A. D. Welliver Faculty Summer Fellowship, I observed that there is more to the development of an engineer than just formulas and lectures.

IN SPITE OF THE RECENT DOWNTURN in the economy, demand for engineers in the workforce has remained fairly strong. Yet enrollment in the nation's engineering programs has been flat and retention of students low, with less than half of entering engineering students receiving engineering degrees. Prospective engineers are attracted because of their curiosity about the way things work and their problem-solving creativity, but they often drop out of engineering programs because of dry theory that is disconnected from real life and rigidity in evaluation. In addition, engineering professors are recruited and rewarded for their prowess in research, while the majority of undergraduate students pursue careers in industry. We in engineering education are challenged to inspire students to creativity while requiring precise thinking, preparing them for a wide variety of careers. In two months spent as a participant in the Boeing A. D. Welliver Faculty Summer Fellowship, I observed that there is more to the development of an engineer than just formulas and lectures.

The Welliver fellowship's objective is to provide faculty with an understanding of the practice of engineering, in the environment of a global corporation, in order to influence the content of undergraduate education. The approach is to expose a small group of faculty from targeted universities to the real-life activities of professional engineers in a variety of settings by "looking over their shoulders." In the summer of 2001, I and 11 other professors from 11 different institutions were invited to participate. The institutions were chosen as those that provide significant numbers of engineers to the Boeing workforce.

The eight-week program was divided into three sessions. For the first week, all of the Welliver Fellows were brought together at a Boeing facility in Seal Beach, California to learn

of the company, to get to know each other, and to have the program requirements clarified.

For the next six weeks, we each moved to a Boeing facility that was appropriate to our areas of expertise. As a structural engineer, I spent my time primarily with the commercial airplane portion of the enterprise in the Puget Sound area.

I worked closely with a Boeing mentor to work out a schedule that was coherent and complete. I visited all relevant locations in the area, including research laboratories, production facilities, engineering groups, and upper management. Each assignment generally included a tour and opportunities to present myself and meet with engineers and managers.

Wherever I went within the company, engineers were eager to discuss engineering education, both from the perspective of their own education and from their experiences with recent graduates. Several common themes on desirable attributes of engineers emerged.

◆ Recent graduates are generally perceived as being bright and skilled in computational techniques. While it is generally agreed that students are currently proficient in the basic engineering subjects, their biggest weakness is seen to be their lack of ability to perform reality checks and understand the "big picture."

◆ Engineering is now practiced in teams. To be successful, engineers must develop communication, team building, and leadership skills.

◆ Desired attitudes include integrity, flexibility, curiosity, self-motivation, and social skills.

◆ All engineers will have to adapt to changes in technology during the course of their careers. The confidence and the flexibility to tackle new assignments are important attributes in engineers.

◆ At Boeing, management is one of the two paths of advancement for engineers. Indeed, project management is required to some degree of

engineers at all levels. Engineers must be able to state the objective of a problem, lay out the required steps and define a schedule, work in a multidisciplinary team, and make decisions.

◆ Within Boeing, cost and the need to consider the business case have increased in importance over the past few years. While most engineers noted that business coursework in the undergraduate curriculum is not feasible, an awareness of business issues is desirable.

◆ Many engineers noted that their education was too theoretical and that they would have liked more practical insight and assignments.

I have concluded that, in my courses, I will place increased emphasis on the learning of concepts and acquisition of basic understanding as opposed to computational techniques. With increased understanding comes the ability to adapt to technological advances. In addition, term projects in my classes will now require consideration of cost, management, and teamwork.

Although creative techniques in the classroom are helpful in stimulating the intellectual growth of students, there is no substitute for practical experience. Many students participate in summer internships or more informal jobs in an engineering setting. However, the benefits are often hampered by a lack of true mentoring and appropriate activities on the job, a lack of opportunity for freshman and sophomore students, and the emphasis on productivity rather than student development. The experience could be improved by coordinating programs with the university and providing assessment of student performance and employer processes.

The development of successful engineers must be a partnership between universities and industry. With increased understanding by educators and industrial feedback, engineers will be better prepared for successful careers. ■

William Cofer is associate professor of civil engineering.

If you use compost in your garden, you may be setting yourself up for either a bumper crop or a bummer crop.

GARDENERS, greenhouse operators, and organic farmers from Washington to California have experienced crop failures on certain plants after using compost to enrich their soil and help their plants grow.

The problem begins when common composting materials such as grass clippings and leaves collected from grounds that have been treated with an herbicide named clopyralid are sent to commercial or municipal composting facilities.

Clopyralid, made by Dow Agro-Sciences, is used to control dandelions, thistles, and other noxious broadleaf weeds on lawns, golf courses, and many agricultural crops.

The active compound in over 30 brand name products, clopyralid has a reputation for long-lasting weed control, says David Bezdicek, a Washington State University soils professor who is researching the problem. It requires fewer applications than many herbicides, which means fewer chemicals go into the environment, he says. Clopyralid is also considered safe for humans and animals, according to the Washington State Department of Agriculture (WSDA).

Despite its benefits, the persistent weed-control that makes clopyralid products popular with the lawn-care and agricultural industries is what is also causing the problem for gardeners, organic farmers, and the entire composting industry.

Clopyralid not only kills thistles, it can also be very toxic to a variety of plants that include peas, beans, tomatoes, potatoes, peppers, and sunflowers. It remains in the soil for so long that it may take years before

the same soil or site can be used again to grow plants susceptible to clopyralid.

The first documented instance of this problem occurred at a Spokane composting facility in June 1999 after tomatoes grown in containers were injured by compost that originated there. The source was traced to lawn clippings that contained toxic amounts of the chemical.

Then in 2000, the composting facility at WSU received complaints of compost contamination that was traced to grass, hay, and straw that was used in the University's animal feeding operations.

Since then, several commercial composting facilities in Washington, California, Pennsylvania, and New Zealand have tested positive to containing damaging amounts of clopyralid.

This discovery has set off a flurry of research, testing, and law making, including rules enacted by the WSDA in March that prohibit the use of clopyralid on residential lawns and turf, but allow its use on golf courses if grass clippings are not removed from the site.

WSU researchers are currently involved in testing various compost feed stocks and finished compost for clopyralid residues, as well as conducting analytical tests and bioassays with plants, which determine the effects of clopyralid on living plants.

So far, it is not known how long the chemical will persist in compost, because tests began only two years ago, Bezdicek says.

"It can persist up to 18 months in the soil," he says, but mentions that in a trial at the WSU Compost Facility, clopyralid concentration increased over a period of 100 days of composting. While the active ingredient breaks down fairly

while food grown with clopyralid is safe to eat, it is so persistent that it will pass through animals with very little breakdown.

"Wholesome and good for the soil—that is how compost was always perceived," says Mary Fauci, a WSU soil scientist who is working on the clopyralid issue.

But since clopyralid is so pervasive, she says the reality is people need to realize they can no longer use all composts for everything.



quickly in the soil where microorganisms are available, it seems to have a much longer life in straight compost.

This presents a large problem for composting facilities, because they generally produce compost within a two- to six-month period, a time frame long enough for most pesticide residues in compost to break down to a level that is not harmful. Since the breakdown period for clopyralid is so long, compost facilities have found it hard to get rid of the stockpiles they now have that contain it. Since March 2002, the Colbert facility in Spokane has stopped accepting any new waste and is currently sitting on 45,000 cubic yards of compost.

The sources of contamination also have Bezdicek and the composting industry worried, because compost is collected from so many places. The main source of contamination comes from grass clippings, but straw and hay are also common contaminants, Bezdicek says. Manure has also turned out to be a problem for compost users, because

Although compost that contains clopyralid may damage certain garden-variety plants, Bezdicek says it can still be useful for other purposes, such as applying it on lawns, certain shrubs, cereal crops, and grass hay, as long as the residues produced from these crops are not composted.

However, if people have an affinity for peppers and tomatoes, Fauci recommends they look into making their own compost.

If composting is not an option, Fauci suggests that people ask questions about the source and history of the compost before they buy it, and that they spread only a half-inch of compost on a garden per year.

—Emmy Sunleaf

For more tips on composting:
css.wsu.edu/compost

[www.puyallup.wsu.edu/
soilmgmt/Clopyralid.htm](http://www.puyallup.wsu.edu/soilmgmt/Clopyralid.htm)

SEASONS|SPORTS

MURRELL TO CHART NEW BASKETBALL COURSE



Sherri Murrell

"I think we can be competitive and win here."

—Sherri Murrell

SHERRI MURRELL may need a pair of steel-toed shoes.

"I'm going to be kicking down doors of all the coaches in the Northwest," said Washington State's new women's basketball coach.

Even before she was introduced at WSU in late March, she had been on the phone trying to improve WSU's recruiting success in the region. Last season, only one Cougar player was from Washington.

Murrell's first order of business after being hired was to contact each returning Cougar player and "embrace them." She also wanted them to know she wasn't coming to WSU to "clean house." With four scholarships to fill and less than two weeks to sign late recruits, she was busy phoning state AAU and high school coaches, inquiring about players, and paving the way for future recruiting efforts. If she can get student-athletes to set foot on the campus, she believes they will be impressed by what the University has to offer in academic and athletic resources.

What other people see as negatives—Pullman's small-college-town atmosphere and isolation—Murrell sees as positives. Until she was 15, she lived in rural Redmond, Oregon. Then she moved to Portland and played basketball for St. Mary's Academy, 1985 Oregon State 4A high school

champions. Her collegiate basketball career was divided equally—two years at Louisiana Lafayette (formerly Southwestern Louisiana) and two years at Pepperdine. She completed a degree in public relations in 1991 at the latter school.

Murrell possesses all the qualities WSU was seeking in a new coach. She's a proven winner, has strong connections in the Northwest, and has demonstrated the ability to build a basketball program at the Division I level, according to WSU athletic director Jim Sterk.

"She's a perfect fit," Sterk said. He held a similar position at Portland State University when Murrell was an assistant coach there from 1996 to 1998. During the past four years as head coach of the University of Pacific in Stockton, California, she compiled a 40-20 record and was 19-11 in 2002. Earlier she was 52-33 as head coach at George Fox University in Newberg, Oregon.

"I think we can be competitive and win here," she said of the task ahead at WSU. "I look at it not as a 100-meter race, but a 400-yard relay. I'm ready to go."

She describes her strengths as "people management and recruiting." She has a reputation for being a players' coach, demanding but fun to play for, and a good motivator. Her teams at Pacific played an up-tempo offense and an aggressive defense, but she says she's flexible enough to employ "what most benefits the team."

Murrell inherits a WSU program that went 17-68 during the three-year tenure of her predecessor, Jenny Przekwas, who was not

rehired after the 2002 season. The Cougars finished the year 2-27 overall and 0-18 in the Pacific-10 Conference.

Murrell signed a five-year pact reportedly paying \$130,000 annually to put WSU women's basketball on a new course.

"If we—coaches and players—do our job," she says, "I think the wins will come." ■

—Pat Caraher

"D" IS FOR DOBA

Longtime defensive coordinator among the best

BILL DOBA DOESN'T THINK the football turf is greener elsewhere. He likes his coaching job at Washington State University and living in Pullman, where "the only traffic congestion is on football weekends."

When his cell phone rang, Doba was fighting the late afternoon I-5 freeway traffic. He explained to *Washington State Magazine* that he was en route to Seattle after a recruiting visit to Everett.

"Good recruits make good coaches," he said.

Doba was the last addition to the Cougar staff when Mike Price was hired as head football coach in 1989. Now, 14 years later, he's the lone assistant remaining from the original nine. That says something

SPORTS|SEASONS

"I missed those butterflies."

—Coach Bill Doba

about his dedication to football and his loyalty to Price and WSU.

"Obviously, we think he's the best defensive coordinator in the country. We've been so fortunate to keep him here. He's turned down probably a job a year," Price says of his coaching sidekick and neighbor. The two live just a long punt apart on Pullman's southeast side.

Hiring Doba may have been one of Price's best decisions. The Cougar field general was getting a veteran coach—15 years at the high school level and 12 in the college ranks. Except for two years as defensive coordinator at The Citadel in South Carolina, Doba's entire coaching career was in Indiana prior to WSU. The South Bend native grew up watching the great Notre Dame football teams shake down the thunder from the sky. At Ball State he was a tailback and defensive back. A dislocated hip, however, forced him to forego his senior season. The injury ultimately influenced his decision to coach.

"I missed those butterflies," he recalls of the gut feeling he had as a player on game days. As a coach, the feeling only intensified. "I have 10 times more butterflies."

Doba began coaching high school football in 1962 and jumped to the college ranks in 1977. He was on Lee Corso's staff at Indiana for six years, spent three with Leon Burnett at Purdue, and two more with Charlie Taaffe at The Citadel before Price came calling. Now he's in his 26th season as a college assistant.

Corso was a great organizer and had a phenomenal work ethic, Doba remembers. "He ran the team like a business. He was very effi-

cient." From Burnett, Doba learned that "You can coach football and still have a lot of fun." And he learned more about coaching defense. Taaffe ran the wishbone offense, now a rarity, and Doba became successful at devising ways to stop it.

Doba's in-depth experience as a defensive guru was something that had been missing at WSU.

Did he ever aspire to hold a head job?

With a quarter century of coaching behind him when he came to WSU at age 48, Doba suggests he may have been too old to become the top guy. "I probably would have had to drop down to a Division I-A school, and it probably would have been an average team. It would have taken time to get things turned around. I'd have been 60 years old."

Now he's 61 and content where he is.

"Coach Price gives you a job and lets you do it. He's not second-guessing every decision," Doba says. "I've got a great staff—Robb Akey, Chris Ball, Mike Walker, and [graduate assistant] Jim Clark. There's good chemistry there. We get along well. There aren't a lot of egos in the room."

In fact, he maintains a small, sparse interior office in Bohler Gym, allowing two assistants to have offices with windows to the outside.

He says he's learned "a whole bunch" from Price, most importantly "to be human."

"You work with him, not for him. He has great rapport, with the staff, and with his players," Doba

says. "He's the best motivator I've ever been around."

Doba doesn't miss the duties that go along with being a head coach in high school. He had seven varsity assistants, nine junior high coaches, a trainer, booster clubs, and speaking engagements. He did a lot of PR work, meeting parents and alumni, and fund-raising. He gladly trades all that for the enjoyment of the Xs and Os. The best part of the day, he says, "is working with the kids on the field." Most of his coaching career has been on the defensive side of the ball, where he started as an outside linebacker coach at Indiana. "I like linebackers and their personalities—those kind of crazy guys," he says with a laugh. "The fun of coaching is seeing a kid come out of high school, grow and mature in college, and go out the door with a diploma in his pocket."

WSU's heralded 1994 defensive unit, "The Palouse Posse," finished the season nationally ranked in a number of categories—second in total defense, third in both scoring defense and rushing defense, and fifth in pass efficiency defense.

"That was a special group of kids," he says, ticking off the names of former stars on D—Mark Fields, Ron Childs, Signor Mobley, Torey Hunter, John Rushing, Chad Eaton, Don Sasa, and Chris Hayes. All went on to play professionally.

The stingy Cougars opened the '94 season by reeling off wins over Illinois (10-9), Fresno State (24-3),

AUGUST

31 Nevada (Seattle, new Seahawk Stadium)

SEPTEMBER

7 Idaho (Battle of the Palouse)

14 Ohio State at Columbus

21 Montana State (Future Cougar Day/Band Day)

28 California at Berkeley

OCTOBER

5 USC (Homecoming)

12 Stanford at Palo Alto

26 Arizona at Tucson

NOVEMBER

2 Arizona State (Dads' Weekend)

9 Oregon (Armed Forces Day)

23 Washington (Apple Cup)

DECEMBER

7 UCLA at Pasadena

COUGAR FOOTBALL

and UCLA (21-0). After losing to Tennessee (10-9), WSU allowed only 13 points in defeating Oregon (21-7), and Washington (23-6). The Cougars capped an 8-4 year with a victory over Baylor (10-3) in the Alamo Bowl. In an era of potent offenses, WSU surrendered only 126 points—12.6 per game—all season.

"It was like a fairy tale," Doba says. ■

—Pat Caraher

PAYING IT FORWARD

by Kathie Meyer '92

Under the right conditions, mentoring will snowball.

ONE OF THE SIMPLEST PLEASURES I have is turning on the radio and hearing the voice of Frank Shiers ('77 Communications), a Seattle deejay working the mid-day shift on MIX 92.5. I've known Frank since high school, and his influence on me was so profound, it's the main reason I went to Washington State University.

My family does not have a long history of higher education, and Frank was nearly the only role model I had for showing me the way through a bachelor's degree. But since then, things have changed for new students at WSU. Recognizing the value of mentoring, WSU has implemented a variety of formalized programs enabling students to realize success.

One of the oldest of these mentoring programs lives in the Office of Multicultural Student Services. "Each year we hire and train 22 successful students to formally mentor both freshmen and transfer students new to the University. The mentors first contact their assigned mentees during the summer via a personalized post card. They meet the day before classes and stay in regular contact throughout the year. Once the mentees become sophomores, the mentor is no longer obligated—but often the relationship continues for years," explained Steve Nakata, director.

Over at the Honors College, the mentoring program is completely student-driven. Conceived and implemented by undergraduates

Anita Afzali '01 and Christine Schuck '03 four years ago, the program is strictly volunteer. "It's a unique, selfless program, because there's no money or course credit involved," said Libby Walker, assistant dean.

Under the right conditions, mentoring will snowball. Using the multicultural program as an example, the Future Teachers of Color (FTOC) program in the College of Education was born in 1994. Later, James Taylor ('63 Education), a now-deceased Bellevue music teacher, saw a PBS broadcast describing the FTOC and was inspired to donate a \$187,000 endowment. There's no doubt the FTOC mentoring component played a huge part in the gift. Taylor was so beloved for the face-to-face time he spent with his students, one of them named her daughter after him.

Last year, the first scholarship recipients from the Washington State Achievers Program marched onto college campuses statewide. Partnering with the Bill and Melinda Gates Foundation, the Washington Education Foundation (WEF) created the achievers program for highly motivated low-income students chosen from Washington high schools with large percentages of low-income students. Forty-one of these students chose to attend WSU.

Money doesn't guarantee success though, and the program creators knew it. The achievers are perhaps the most intensely mentored college students in Washington. All have

campus mentors to assist them through all four years, and community mentors in their hometowns as well. It's interesting to note that more than one-third of the WEF directors have ties to WSU, President Emeritus Sam Smith among them. Is it a coincidence that a program so crammed full of mentors has WSU folk working in the shadows? Probably not.

To me, mentoring captures perfectly the "pay it forward" ethic of being a Cougar. I can't possibly count the ways I was pulled out of figurative ditches during my days in Pullman. My list of mentors includes Gail Rowland and Karen Curtis Erp of Human Resource Services, a small army of fine people at WSU Libraries, and an editor in the Caroline Cooper building.

But Frank Shiers will always hold the title of my longest-running WSU mentor. Whenever I see him, he checks in about my job, my writing, offering advice and encouragement. When I switch on the radio to hear him, it's not the sound of Top 40 hits that I've come for. I'm there for a voice that fires me up to go out into the world and exceed yesterday's personal best. It's the sound of someone saying, "Go, Coug!" ■

RECOMMENDED READING

Ambrose, Larry. *A Mentor's Companion*. Chicago: Perrone-Ambrose Associates, Ltd., 1998.

Huang and Lynch. *Mentoring: The Tao of Giving and Receiving Wisdom*. San Francisco: Harper San Francisco, 1995.

Kathie Meyer '92 welcomes e-mail from WSU friends and classmates at kneyer@olypen.com.

"WHY DO YOU BELIEVE THIS?"

"I now think twice when I look in the mirror."

WES LEID REMEMBERS the advice Leo K. Bustad, late dean of the College of Veterinary Medicine, offered him when he was hired at Washington State University 22 years ago. "You may not think you teach ethics, but you teach ethics every day of your life in your interactions with others."

"You need to explore why you believe what you believe," Leid says, "and get others to explore issues they had not considered before."

That is what he does. And, according to students in his University Honors class, "Medical Ethics and The Holocaust," he does it well.

This seminar explores the ethics displayed by medical communities within the countries of the Third Reich. The students analyze how decisions of organized medicine led first to the euthanasia of the physically and mentally impaired, followed by the destruction of those who disagreed with those policies,

and finally to the near annihilation of European Jewry.

A professor of animal sciences in Agriculture and Home Economics, Leid explores with his students the concepts of anti-Semitism and racial hygiene, as well as the impact of World War I on the development of Nazi Germany's medical policies. In examining the role of physicians and other medical personnel in supporting the events that led to the "Final Solution," he focuses on the ethical choices one makes in addressing such agendas as genocide.

This seminar has been popular with Honors College students. Richard Law, director of the General Education Program for undergraduate students at WSU, coaxed Leid into offering his ethics course to nursing students who needed an advanced General Education elective to graduate. Last fall, Leid drove from Pullman to Spokane every Thursday evening for 15

weeks to engage six upper-division nursing students in a lively dialogue. Margaret Bruya, professor of nursing, assisted in the course discussions.

Leid, who is Jewish, throws out a question to the nursing students seated around an oval table. They jot it down and have five minutes to prepare a response. "Why do you believe this?" At first they are reluctant to speak, but then they open up. They benefit by listening to others, by questioning their peers' views.

The course is writing-intensive—five separate assignments, plus a 10-page final paper. Three books are required reading: *The Holocaust* by Martin Gilbert, *The Origins of Nazi Genocide: From Euthanasia to the Final Solution* by Henry Friedlander, and *Nurses in Nazi Germany* by Bronwyn Rebekah McFarland-Icke. With the historical perspective these books provide, students respond in writing to such questions as, "Is there any instance in which life is unworthy of life?"

Leid wants students to understand what happens "when hate runs wild." He hopes they will question their motives in everything they do, stand up for what they think is right, participate in important issues in their communities, and write letters to the editor on their ethical positions.

From a file drawer, he produces an e-mail message from one of his students. In part, it reads: "I now think twice when I look in the mirror. I like the idea of doing something kind for someone else every day . . . Your lessons are thought provoking and life changing . . . I know your class will have a lasting impact on me and those that I come in contact with. Thank you." ■

—Pat Caraher

ROBERT HUBNER



Alex Kuo Wins American Book Award

ALEX KUO'S *Lipstick and Other Stories* has won him the honor of the American Book Award. Kuo is Washington State University's first writer-in-residence and chair of the comparative American cultures department (CAC) and an English department faculty member. "The Peking Cowboy," a story from the collection, appeared in the Spring 2002 *Washington State Magazine*.

Kuo teaches Asian American and Native American literatures in CAC, cultures of the American West in American Studies, and creative writing in English. He has received a National Endowment for the Arts Fiction Fellowship and grants from the United Nations and the Idaho Commission for the Arts for background research in China for his completed novel, *The Man Who Dammed the Yangtze*. In 1991-92 he taught in China as a Senior Fulbright Scholar, and in 1997-98 in Hong Kong as the Lingnan Visiting Scholar in American Studies.

The American Book Award was established by the Before Columbus Foundation "to acknowledge the excellence and multicultural diversity of American writing." Kuo received the award at a ceremony in New York City in May. ■

Last fall, Professor Wes Leid commuted from Pullman to Spokane every Thursday evening to teach "Medical Ethics and The Holocaust" in WSU's College of Nursing.



ROBERT HUBNER

OVER COMING inertia

by Bill Morelock • Illustration by David Wheeler

I'd like you to meet someone.

He's a vulnerable fellow, rather too open to the joys and despairs of deep remembering. His life, therefore, is disordered but rich, evocative but dangerously reflective. He gets along, he thinks too well, he cuts corners, he sighs great sighs. Wisteria blooms and withers while he gouges his summer with indolent harrow thrusts. He regrets memory's hold on him, yet memory, a vast overgrown archive, secrets vital news. He has a hunger there to lose himself, and a trough of youth to do it in. The luxuriant foliage thins with the approach of life's winter, clarity trumps extremes and, maybe, awareness begins.

His name? Well, could it be yours? Or mine. Or, maybe, Hamlet, allowed a middle age. Because we are, when most at home with our best minds, Hamlet's cousins. We are, when most human, most skeptical, most apperceptive of all life's kaleidoscopic facets, William Shakespeare's creations.

A thousand pardons, while this commonest of readers makes his commonest of discoveries. Shakespeare? Known, kneaded, risen, and baked. Old news. But essentials often disappear as they become fixtures. They require not re-examination but rediscovery. I'm just noticing, for the first time in a 40-something life, how good the bread is. And so with all the sincerity of the neophyte, I'm wondering at the existence of

the sun and the moon and the seven seas, marveling at the existence of a 16th-century poet/playwright/entrepreneurial social-climbing professional skeptic who gave us a miraculous gallery of characters who got completely away from him to become, within the walls of Elsinore or over sack and a roast mutton leg at the Boar's Head, or bemusedly falling in love with a wrestler in the forest of Arden, "free artists in themselves."

That's how Hegel—quoted by Harold Bloom in his *Shakespeare: The Invention of the Human*—described Hamlet and Falstaff and Rosalind, virtuosos of human-ness. I've never been exactly sure who the "common reader" is, but she seems to be someone whose endangered existence is mourned or decried by writers of serious books; so paradoxically, what a common reader reads is not common at all.

Bloom, one of these conservationists, is ever controversial, a critic/curmudgeon who zestfully insults large bands of fellow scholars even as he attracts the interested non-specialist who wants to find in his reading a little magic and miracle without resort-

ing to pre-adolescent sorcerers or Elvish runes. Then again you can read Bloom as a kind of Gandalf for all of us text-questing Hobbits, guiding us to note the good stuff in the good stuff, whether it's Shakespeare or Cervantes or Jane Austen or Italo Calvino. For Bloom, Hamlet's famous indecision wasn't just the cause of a downfall but part of his glory as well, an effect of a vast intelligence. Rosalind, like most of the women in Shakespeare, was better than her man, lived herself more fully than anyone save perhaps Sir John Falstaff. He, an aging, doomed, larcenous, sodden old soldier, is nevertheless unconquerable, irrepressibly testifying "Give me life," and making rude gestures at honor and his prince.

Information fuels and bombards us. The now indispensable tools we use to process that information demand votive offerings of ourselves, reasonable at every point, but so inexorable that we're obliged over time to hand over big chunks of our imaginations. If we had the time or perspective to notice, we might be horrified.

To read, then, a Shakespeare play or the history of the Byzantine Empire simply



because you want to, amounts to an act of rare resistance against accepting what is immediately and easily available. That tendency or inclination or habit—or skill—insulates us in profound ways from the more corrosive effects of these jealous, autocratic tools.

Maybe an element of retreat is required to make such reading central to an imagination. When I was a student at Washington State University I lived for a short time on Michigan Street, close to campus. Every night I walked by a house where a man sat in a big stuffed chair next to the window, reading under a close lamp. This was Murray Bundy, near 80, retired English professor and namesake of the department's reading room. A monastic sort of life, I thought, but I wondered what places he had access to that I, dilettantish and distracted, then and always, would never know. In my one conversation with him in his front yard he managed to slip in an apt aphorism (Thoreau, did he say?) on the question before us here: "Read not the Times; read the Eternities."

The quicksilver marvels of our tools and toys, trafficking in light, creating and satisfying hungers simultaneously, give us wings and myriad worlds. Yet, as the creations of a gargantuan commercial assault on our attentions and imaginations, they also have a curious density about them. An ultralight laptop, as a symbol, wants to fall to the very center of the earth.

At the same time, that earthbound, clothbound relic has become, by remaining itself, a reliable vehicle—shabby as it may seem around the flanks—for escaping the projectiles of the market, the cooings of the upgrade. It takes a certain amount of energy to overcome inertia—more than we often think we can muster—but once into orbit glimpses of something like freedom present themselves, and it's delightfully hard to tell that it's your mind, rather than a processor, operating at light speed. ■

Bill Morelock '77 is a writer and broadcaster. He can be heard weekdays on WCAL-FM, Northfield, Minnesota (wcal.org) from 3 to 7 p.m. Central Time. He wrote about his grandfather, Bill Nollan '26, in the Summer 2002 WSM.

KEEPING OUR FOOD SAFE

IF YOU'RE WORRIED THAT OUR FOOD SUPPLY might be the next target of international terrorists, you probably needn't be, says Barbara Rasco, associate professor of food science and human nutrition. Rasco's research centers on bioterrorism and the safety of our food and water supply.

"I don't think the events of September 11 mean there's any increased risk to our food supply," she says. Domestic ecoterrorists and bioterrorists are more likely to target our food supply than are foreign entities, she says. "The risk from them hasn't changed."

A lawyer as well as a food scientist, Rasco has worked on the prevention of international terrorist incidents. She and Gleyne Bledsoe, adjunct professor of biological systems engineering, have worked together for several years providing food safety training to the industry. Bledsoe's experience also includes counterterrorism defense intelligence. The two now include food security and the prevention of intentional tampering in their training. All levels of the food industry have been geared up to look for tampering since the Tylenol incident in the early '80s, when a consumer poisoned Tylenol already on the shelf. That incident led to the tamper-resistant packaging we're so accustomed to now.

We're fortunate in Washington State, says Rasco. Our food industry has been concerned about food security and safety even longer than that. That's because much of what is grown or produced in Washington is exported, and we sell to countries that are picky about what they import. In addition, the food industry in our state sells specialty products like wine, cherries, raspberries, asparagus, and fish, and it carefully monitors not only production, but also the safe delivery to retailers.

There are good reasons for the food industry to be concerned about safe and secure food. The legal standards for injury from food are high. "If you're a food producer, your neck is always sticking out," she says. Food producers are strictly liable for any injury or sickness that can be traced to their food. Negligence or sloppiness or intent to injure are not required.

Preventing product tampering is obviously the key, says Rasco. She and Bledsoe stress its importance when they help companies develop security guidelines. They especially recommend that security be thought of as an extension of already existing programs designed to ensure food safety. They also point out that consumers play an important role. If a food looks odd or the package looks like it has been tampered with, or if there's something that bothers you about a restaurant meal or a buffet item, let management know, says Rasco. They want to fix it more than you do. ■

—Mary Aegerter

GUARDIAN ANGEL COMES TO THE RESCUE

When his home and family life were in turmoil, Kathy Cochran came to her nephew's rescue. At the time Robert Cochran was 15, living in Kansas, and the court was about to place him in a foster home again. Kathy gave the court another option. She agreed to take him in, and the judge awarded her custody.

"Aunt Kathy . . . has been my best friend, my mom, and my guardian angel all at the same time," Robert wrote in a letter nominating her for Washington State University 2002 Mom of the Year. She was selected from 24 candidates and recognized at the April 13 Mom's Weekend brunch in the Compton Union Building.

"She has instilled morals and values in a young man who might otherwise be continuing a downward spiral . . .," wrote Robert, a WSU junior with an interest in communications.

A Seattle lawyer, Kathy Cochran helped her nephew make the transition from the Midwest to Seattle. She encouraged him to become involved in activities and make new friends, while encouraging opportunities for him to further his relationships with his grandparents and father.

Kathy Cochran, center, with her nephew, Robert Cochran, and her own mother and role model, Eunice Cochran.



SHELY HANKS

Killing the messenger

CHRISTIANE AMANPOUR, chief international correspondent for CNN, received the 2002 Edward R. Murrow Award for Distinguished Achievements in Broadcasting May 23 from the Murrow School of Communication. Amanpour, who has been covering the Israel-Palestine conflict, flew in from London to present her talk, "Killing the Messenger." Earlier in the day, Washington State University broke ground for a 24,000 square-foot addition to the Edward R. Murrow School of Communication. The facility is scheduled to be completed by fall 2003.

A few excerpts from Amanpour's talk:

"In my opinion, what we say and how we report the truth defines not only the moment but us as people."

"These days we are being targeted because someone doesn't like what we say." (In reference to the 69 journalists who were killed worldwide last year while covering the news.)

"By not letting us close to military activity, TV audiences are getting just one view of America . . . a grainy, green night-scope vision of bombing. We cannot tailor our report to please the politics of the day no matter what country we are in." ■

THE SURVEY EXPERT

DON DILLMAN MAY BE THE most influential social scientist in developing the scientific basis for research methodology over the last 25 years. His *Mail and Telephone Surveys: The Total Design Method* is a classic of its genre, the first work to provide detailed procedures for conducting surveys by these methods. In the early 1990s, he was senior survey methodologist for the U.S. Bureau of the Census. He also led development of new questionnaire designs and procedures for the 2000 Decennial Census and other government surveys.

Dillman has worked at Washington State University for 33 years. He directed the Social and Economic Sciences Research Center (SESRC) at WSU from 1986 to 1996, is now the deputy director, and was the founding coordinator of the SESRC's Public Opinion Laboratory, one of the first university-based telephone survey laboratories in the United States.

For these and other accomplishments, Dillman was honored with the Eminent Faculty Award, WSU's top faculty honor. ■



ROBERT HUBNER

STUDENTS JOIN CYPRUS TO TACKLE HUNGER

ON THE MORNING OF MARCH 30, the United Nations Security Council held an emergency session at the UN building to discuss the crisis in the Middle East. At the same time, three floors down in Conference Room 4, I was giving a presentation on world hunger.

As part of the National Model United Nations (NMUN), nine of us Washington State University students joined 2,500 other students in "modeling" UN procedures: lobbying, debating, and writing resolution papers.

We spent a week in New York City going to committee sessions, talking with UN representatives and ambassadors, and sightseeing on the side. Schools from around the world sent delegations of students.

Our group was assigned Cyprus as a country to model. We researched the social and political views of Cyprus, as well as its international role, in order to be Cypriot "delegates."

Cyprus is a tiny country—its population less than a million—but is very involved in humanitarian issues. When we met with the Cypriot ambassador, he talked about his country's fight against torture and the death penalty. Whereas the other "delegations" got maybe 15 minutes of their ambassadors' time, ours talked with us for almost two hours.

Each student was assigned a UN committee that Cyprus was actually on. I was a delegate to the Food and Agriculture Organization (FAO), a committee of about 40 members concerned with eradicating hunger and freeing international food trade. Our committee met at the hotel in a tiny box-like room and attempted to work out the world hunger, international food trade, and biotechnology issues in three days. Needless to say, we didn't get far. We discussed only world hunger. The NMUN perfectly modeled the bureaucratic process; everything was gruelingly slow and frustrating, even though we were

all in agreement about how to combat world hunger. Each of our five resolutions dealt with a different aspect of world hunger. Since Cyprus is active in humanitarian matters, I was involved with each of them. The first outlined the need for schooling and AIDS education as a means of combating hunger; the second called for all nations to respect the cultural identity of those countries receiving aid; the third stressed the importance of increasing contributions from donor nations; the fourth set up an emergency food bank that would provide quick relief in times of crisis; and the fifth was a four-page overview dealing with all the social, cultural, economic, and political aspects of setting up sustainable agriculture programs in third-world countries.

For those few days, I wasn't "Katie." I responded to "Hey, Cyprus." I worked on a resolution with three guys I called "Spain," "Canada," and "Syria."

The resolutions we turned out in the FAO didn't have to be voted on; our chair would just present them to the Economic and Social Council on the last day. But he didn't show up that morning. Panicked, the administrator for the FAO committee grabbed me, the first FAO delegate he recognized, and asked me to give the speech. I sat at the head of the conference room and presented our papers to the council while, during a time of serious international conflict, one of the most powerful UN committees met upstairs. ■

—Katie Johnson ('03, *Ent., Journ.*)



DON HAHNEMAN

Katie Johnson discusses matters with the Cypriot ambassador to the United Nations, Soto Zackheos.

Spokane Health Sciences Building enhances research, medical partnerships



PETER HASSEL

LINDA MASSEY SWINGS open the doors of large kitchen cabinets that store portions of the \$10,000 worth of groceries needed over eight weeks for people in a kidney-stone- and low-salt-diet study. Nearby are industrial-sized freezers to keep perishables. The Washington State University Spokane professor of human nutrition is studying the role salt plays in the

formation of calcium kidney stones under a grant from the National Institutes of Health.

Next door in another lab is a white contraption that might have come straight out of NASA, a six-foot long container with a window. Large enough to hold one person, the “Bod Pod” has instruments to determine body density and fat by measuring how much space a

person takes up. Air is pumped in, and instruments measure the amount that air pressure rises.

These are just some of the tools inside the \$39 million Health Sciences Building at WSU Spokane that opened in January with state-of-the-art labs and classrooms. The 145,000-square-foot building, the third on the Spokane campus, houses pharmacy, speech and hearing sciences, exercise science, health policy and administration, and food science and human nutrition. Other WSU programs inside include the Health Research and Education Center, Area Health Education Center, Washington Institute for Mental Illness Research and Training (WIMIRT), and the Institutional Review Board–Spokane.

EWU programs in physical therapy, occupational therapy, and dental hygiene are also housed here.

Pharmacy students inside the building run a drug information center, fielding calls from regional doctors, nurses, and pharmacists about drug interactions.

Graduate students in the cooperative WSU and Eastern Washington University Programs in Communication Disorders can observe speech and hearing clients in indi-

vidual therapy rooms. Screened viewing areas allow professors to oversee the work.

The facility is already fostering several interdisciplinary studies, enhancing research and clinical work and expanding partnerships with regional health care institutions. Current research includes the Spokane Heart Study, a joint study by the College of Pharmacy and WIMIRT on the cost effectiveness of newer schizophrenia drug treatments, interdisciplinary work on the effects of the newer antidepressants on sperm DNA damage, and exercise science’s research on how exercise affects the immune system.

The building is expected to boost Spokane’s research programs and attract established investigators, especially in the biomedical arena, says Dennis Dyck, associate dean for research at WSU Spokane and director of WIMIRT.

With 13 hospitals and medical centers, Spokane has the largest regional medical community between Seattle, Salt Lake City, and Minneapolis-St. Paul. ■

—Treva Lind



JEFF GREEN

Linda Massey, right, professor of food science and human nutrition, and graduate student Jennifer Flint measure the body mass of graduate student Devin Huck, seated in the “Bod Pod” in the Health Sciences Building.

College of Nursing

...committed to inspiring and transforming health care for generations to come.

Hospital collaborations fund extra sections in Spokane and Yakima

Increasing the number of nurses is challenging today in light of limited state resources. Although the applicant pool for the College's basic B.S.N. program is very large and highly qualified, enrollment is limited by funding. Health care leaders in Yakima and Spokane have met this challenge. The two major hospitals in Yakima, Providence Yakima Medical Center and Yakima Valley Memorial Hospital, provided funds this year to admit and support an additional section of nursing students at our Yakima nursing campus. In Spokane, Inland Northwest Health Services, on behalf of the area hospitals, provided funds for two additional sections of nursing students. These considerable two-year investments support a growing need for more nurses in our communities statewide.

Visit our Web site at nursing.wsu.edu for details about these and other exciting projects.

Community collaborations bring nurses and health care closer to those who need it most

In this time of health care disarray and budget constraints, the College of Nursing has extended community health care services and addressed a growing nursing shortage, thanks to some unique collaborations. With Washington State University as the coordinating institution and fiscal manager, the College participates with Eastern Washington University, Gonzaga University, and Whitworth College in preparing the largest number of entry-level nurses of any institution in the state of Washington. Founded in 1968, the consortium is widely recognized as the Intercollegiate College of Nursing, the first and most comprehensive such collaborative nursing education endeavor in the country. Students are placed in some 300 agencies across the state for their clinical experiences, where they work closely with practicing professionals under the supervision and direction of the faculty.

Other collaborations are integral to the College's efforts. People's Clinic, a nurse-managed and nurse-practitioner-staffed health care clinic, was founded in 1998 by the College of Nursing. Located at the YWCA in downtown Spokane, it serves about 300 primarily low-income, homeless, underinsured or uninsured children and families each month. This clinic was established through the generous support of many local and national foundations, organizations, and individuals, including the Robert Wood Johnson Foundation. Most recently, the College was awarded a \$1.8 million grant from the Health Resources and Services Administration (HRSA) to assist with continuation and further development of clinic efforts. It provides an educational site for students and practice opportunities for faculty while continuing to provide accessible health care in our communities.

Related to these efforts are additional collaborations. A clinic located on the Spokane College of Nursing campus, staffed by nurse practitioners and graduate students, serves the health care needs of students from neighboring Spokane Falls Community College and Spokane-based nursing students. The Havermale Health Clinic, in collaboration with Spokane Public Schools, provides a friendly, safe, and confidential service to students and families unable to access affordable health care. The clinic is open one day a week at Havermale School.

A new and exciting collaborative venture, to be launched in fall 2002, is the Ronald McDonald Care Mobile. One of only nine Care Mobiles in the country, this mobile clinic, supplied by Ronald McDonald House Charities, will provide health care to children at schools and sites throughout Spokane County. Supported by the College of Nursing, Inland Northwest Health Services, Spokane School District, Ronald McDonald House, other local organizations, and individuals, this innovative community effort will reach hundreds of students and families in need of basic health care. The College's HRSA grant provides funding for a nurse practitioner to staff the Care Mobile.



WSU College of Nursing dean Dorothy Detlor, associate dean for instructional resources and extended College activities Charlene Clark, and People's Clinic co-founder Professor Margaret Bruya joined Ronald McDonald and friends for the community announcement of the Care Mobile at Stevens Elementary School in Spokane.



World Class. Face to Face.



Roozen Family
Labor Reflected in **Bulbs**

IF THEIR 10 CHILDREN WEREN'T sick, in school, doing their homework, or playing sports, William and Helen Roozen expected them to be working. There was no sitting around watching television. The five sons and five daughters were to be up early in the morning. For role models, they had to look only as far as their parents.

"Hard work never hurt anyone," William Roozen used to tell his children, including Leo Roozen, who succeeded him in 1985 as president and official spokesman for the Washington Bulb Co., Inc., of Mount Vernon.

William knows something about work—and bulbs. His roots in the bulb business date back to Holland, the land of his birth. His ancestors began raising tulips there in the late 1600s. On an early sales trip to the United States, he discovered two things. He didn't like selling, and he didn't like the east coast. When he finally immigrated to Washington in 1947, he decided to settle in the Skagit Valley.

The valley's fertile soil and maritime climate made it the perfect place to grow tulip, daffodil, and iris bulbs and flowers. Early on, Roozen put his strong back and hands to work for other farmers. Then in 1950, with five acres, he decided to strike

out on his own. Alongside a few hired hands, he toiled long hours in the fields. Meetings were held in a garage. To save money, he acquired used tractors and farm machinery.

In 1955, he purchased the Washington Bulb Co., a small but successful business, from two of Mount Vernon's first bulb farmers—Joe Berger and Cornelius Roozekrans.

Now the Roozen family-owned business is the largest tulip bulb grower in North America. The company employs 125 full-time workers. That number exceeds 300 during a peak nine- to 10-month period, making the company one of the major employers in the Skagit Valley.

In terms of volume, the Washington Bulb Co. ships more than 50 million cut flowers and tens of millions of bulbs throughout the United States and Canada annually. The name Roozen means "roses" in Dutch.



"He was a grower at heart," Leo says of his father. Seventeen years ago, William passed ownership of the company on to his sons, all Washington State University alumni, and a daughter, Bernadette Roozen Miller, who died in 1996.

William, 82, and Helen Roozen, 81, married for 54 years, "did everything together," Leo says. A strong sense of family and a solid work ethic have always been important to the senior Roozens. So is religion and love for their

ABOVE: The Roozen brothers, John, Richard, Leo, William, and Michael, are business partners.

RIGHT: William and Helen Roozen emigrated from Holland to grow bulbs and flowers in the fertile Skagit Valley.



and Blooms

Working with Mother Nature

THE TULIPS were a week to 10 days late in blooming this year. Five inches of snow on the fields March 20 will do that. Leo Roozen's family has been growing tulips at Mount Vernon since the late 1940s. This spring was the latest he's seen them bloom. Despite the delay, an estimated 300,000-plus visitors attended the 2002 Skagit Valley Tulip Festival April 5-21.

Driving west from Mount Vernon, look for the 30-foot-high windmill in the near distance. It is the centerpiece of RoozenGaarde. The three-acre show garden is planted with more than 200,000 spring-flowering bulbs. Tulips. Daffodils. Iris. And many other bulb types. The Roozen family established the garden in 1985. The family owns the Washington Bulb Co., Inc. WBC administrative offices, greenhouses, and processing warehouse are located just south of the garden.

Vast fields of flowers in various hues spread out from the garden's retail store. Here visitors can purchase fresh-cut flowers in bunches, and green-thumbed gardeners order bulbs. On this Thursday afternoon in early April, the temporary

parking area across Beaver Marsh Road from the garden is filled to its 300-car capacity.

One employee good naturedly described the WBC operation as "year around craziness." Planting, growing, harvesting, processing, and shipping keep the five Roozen brothers and 300 employees hopping.

Tulips are planted after the irises and daffodils but are harvested first. "They mature earlier and die faster," William Roozen says of the tulips. He oversees field operations.

Tulip bulbs planted in September and October develop roots in November. As the mother bulbs get ready for winter, they take in nourishment. December to January is a cooling period. The bulbs rest. They require temperatures of 40 degrees Fahrenheit to bloom. During this period, frost won't harm them.

In February and March, carbohydrates in the bulbs turn to sugar. As this occurs, the leaves and flower gradually push up and out of the bulb. Between then and June, the bulb grows, developing most of its total size after the bloom. The bulbs are harvested June through August. As many as four bulbs can grow out of the mother bulb. Following the blooming period, the tops are cut but the leaves are left on the plant.

Behind the wheel of his truck as he swings through the fields, William explains that tulip bulbs originally came from the highlands of Turkey, where they grow naturally in the

cool, windy climate similar to that of the Skagit Valley. From the beginning, the company has kept a record of the crop rotation in the fields it plants. William produces a computerized spreadsheet from his logbook on the truck's seat and runs his finger down one of the columns. "This was an iris field, now it's daffodils," he says. "In between it was planted in peas." Wheat is also used as an alternative crop.

All tulips and irises are planted and dug annually. Some daffodils are left in the ground for two years. The second year produces the biggest bulbs, which come from daughter bulbs. To help control disease and viruses, the fields are sprayed by air or from the ground, depending on weather and field conditions. Insects spread most viruses. Workers remove the virus-infected plants by hand. Telltale signs of viruses in tulips include a darker colored blossom, stripes, or wrinkled petals. While viruses spread in a field of like flowers, they don't contaminate other varieties.

"We try to get two-and-a-half times what we plant, depending on the bulb, the variety, and the size," William says. The WBC subscribes to a daily weather service out of Portland that provides three-, five- and 10-day forecasts. The first report comes at 5 a.m., with a 3 p.m. update projecting nighttime temperatures.

"When you plan to have 200 pickers in the field at 7 a.m., and you

find out it is going to rain overnight," William says, "you can call them into work later."

In the fields, the bulbs are machine-harvested. They are separated from the soil by varying sizes of screens, and water, and later sorted into drying bins in the processing plant.

Cut tulips, grown both in the field and in greenhouses, are harvested as a unit—flower, stem, and bulb together. In long assembly-type lines, workers separate the bulbs from the stem. The flowers are machine banded—usually five to 10 flowers to a group. Some bunches are the same color; others feature a variety of colors. Workers hand-wrap them in cellophane sleeves to protect them. The flowers, 45 bunches to a box, are stored in coolers. Later they are loaded onto refrigerator trucks, which can make up to six trips daily to Sea-Tac International Airport. The flowers are flown to their destinations the same day.

Late in the afternoon, the brothers—John, Richard, William, Michael, and Leo—take time from their respective duties for a group photo, a rare event.

In casual conversation with the brothers, one discovers how passionate they are about the bulb and flower business.

Perhaps John summed up the operation best when he said, "We take Mother Nature and work with her."



Now the Roozen family-owned business is the largest tulip bulb grower in North America.

adopted country. On their arrival in the States, they quickly became aware of the “immense opportunity” that America presents immigrants. As soon as they could, they became U.S. citizens.

“Dad is a real up-front guy,” Leo says. “You never have to guess what he is saying or thinking.”

In a perfect world, the Roozens would have wanted all their children involved in the family business. But William left the door open to other options. He encouraged the children to think on their own, to make their own decisions. He expected only one thing: “If you’re going to do something, you should be the best no matter what it is.”

The Roozen children took the message to heart and followed William’s lead. Then, in the mid-80s, William had to face reality. He knew if he wanted to control the business forever, the rest of the family members likely wouldn’t stay.

“We had our own goals,” says Leo. He speaks not only for himself, but also for his partners John, William, Richard, and Michael. “I have to respect Ma and Pa for that. Maybe they stepped out before he [Dad] was ready.”

The sons still value their parents’ opinions. But once the decision was made—for better or for worse—the business was handed over to the next generation of Roozens. There was no turning back. William and Helen knew that.

The Washington Bulb Co. farms nearly 2,500 acres, mainly daffodils (550 acres), tulips (450 acres) and iris (200 acres). In season, 1,100 to 1,200 acres are devoted to bulbs. Winter wheat (400 acres) and green peas for processing (240 acres) also figure in the crop rotation. Area farmers, however, are turning away from peas, replacing them with corn, potatoes, pumpkins, and berries.

BULBS AND CUT FLOWERS are two different operations under the Washington Bulb Co. umbrella. With almost 625,000 square feet of flowers under cover in glass, double poly, and fabric greenhouses as well as quonset huts, the company cuts flowers 365 days a year.

Most of the company’s products—bulbs and cut flowers alike—are sold in the contiguous 48 states, as well as in Hawaii and Alaska. “There’s a ton of opportunity here [in the U.S.]. There’s plenty of business in our own backyard,” says Leo. He and his partners believe that the Washington Bulb Co. is strongest when it has more control over the variables. That doesn’t mean the company ignores the world market. Markets change. So does the company’s marketing, which has grown from printed catalogs to use of the Internet and Web pages. At one time, the largest percent of WBC’s gross revenue

came from bulbs.

Now more than half comes from cut flowers.

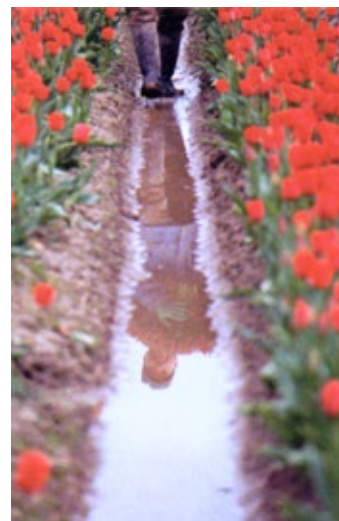
Leo travels a fair amount, usually within the United States for business meetings and to meet with associates in the bulb

and cut flower industries. He’d prefer never to leave the farm, but acknowledges that’s no longer the way the business works.

In an 18-month period ending fall 2001, Richard, who oversees the farm operation, including greenhouses and warehouse, traveled to Holland at least four times.

“We get on a plane, go for what we have to do, and then come back,” Leo says of company travel and efforts to stay abreast of competition and the market. WBC sells its products mainly to domestic wholesale distributors, large supermarket chains, and mass merchandisers. He declines to name names. Time-sensitive cut flowers are delivered to Sea-Tac International Airport daily by refrigerator trucks for shipment. All bulbs are shipped on the ground via tractor-trailers. Trucks reach the east coast every four days.

On a global scale, bulb growers are found in Western Europe, England, France, Holland, and in various locations



in the Southern Hemisphere. For cut flowers, suppliers are mainly in Western Europe, Canada, Mexico, and Central America.

As growers, farmers, and businessmen, the Roozens want to control as many variables as possible regarding their products. This means they have to be “good at finance, planning, scheduling, human relations, personnel, production, efficiency, and management,” says Leo, rattling off the litany.

“We all have to do that.” And the company has to plan for the norms in weather. There’s always concern about the elements—particularly in November and December, when Skagit Valley farmers have witnessed “some goofy things.” For example, bulb growers suffered heavy losses in 1990, when flooding put many acres under water. There was nothing they could do about it.

“You have dry years, cold years,” Leo explains. “But when you have a severe frost or flood after the crops are in the ground, that can really set you back.”

ASKED TO COMMENT on how tasks and responsibilities are determined in the family business, Leo responds shyly. He’s not sure that he is president of the company, “because none of my brothers wanted the position.” Regardless, he and his partners don’t put much emphasis on titles. But as president, he makes the

final decision if it comes down to that.

In general terms, Richard is responsible for the farm operation. William’s responsibilities include planting and harvesting of all crops and cut flowers in the field. Michael, the youngest, is the controller. John, the eldest, oversees buildings, machinery, and equipment. He also is a tireless worker in the community, attends many meetings, and



deals with issues related to chemicals, and land and water use.

Sometimes the other brothers defer to Leo, because “it’s been the easiest way,” he says. After all, they are partners. They make decisions together. At times, however, the volume goes up during business discussions, but they never lose sight of what is best for the company.

“If that means I eat crow, I eat crow, or someone else eats crow,” Leo says.

“Sometimes your ego gets kicked. But that works. What the heck. We wouldn’t be successful if we all walked into a room and always agreed on everything.

“We challenge each other’s thought process on a daily basis—sometimes more than we wish to admit.”

The late Bernadette Roozen Miller was the only one of the four sisters involved in the Washington Bulb Co. In 1985, she left her career in bank management to build a dream she called RoozenGarde. The three-acre show garden with Dutch windmill is planted in the fall. Each spring, the more than 200,000 tulip, daffodil, and iris bulbs blossom in a rainbow of colors.

RoozenGarde is an official sponsor of the Skagit Valley Tulip Festival. The early spring event attracts thousands of visitors from around the world to the family garden and to the tulip fields of the Roozens and other growers. Bernadette lost a long battle with a rare disease known as amyloidosis in 1996. Her memory lives on in RoozenGarde and the company’s retail store she helped shape.

While it may have been a forgone conclusion that the sons would wind up in the family business, where they have worked since they were six or seven, the brothers also know the value of education.

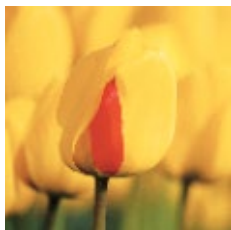
“For me, and I think I can speak for my partners, the Washington State University experience was outstanding,” says Leo. “We loved the school, the courses and academic disciplines it had to offer, and the area.”

John and Leo graduated in agriculture in 1974 and 1975, respectively. William, a member of the Class of ’77, followed the same route. Richard ’78 and Michael ’85 earned degrees in business administration, with an emphasis in accounting.

“We probably learned as much out of the classroom as in it. That’s part of education. You mature. You grow up. You form great relationships that you can fall back on the rest of your life,” Leo says.

In 1989, the Washington Bulb Co. donated 2,000 tulip bulbs to WSU as part of the University’s centennial celebration. That year also marked the opening of the Lewis Alumni Centre, and many of the bulbs were used to landscape the grounds around the historic livestock barn that had been renovated and enlarged.

“The Roozen family has been very loyal and generous in providing us with bulbs on at least three occasions,” says Pullman alumnus Bob Smawley, who has assumed the duties of planting the bulbs and maintaining the flowerbeds around the center. He reports that



the WSU Horticulture Club also has received gift bulbs, probably in an equal amount, from the Washington Bulb Co. to beautify the campus. Other bulbs have been made available to the Pullman Civic Trust on a low-cost basis for planting in city parks and gardens.

The Washington Bulb Co. also cooperates with WSU Extension researchers and scientists, mainly in Puyallup and Mount Vernon.

"We work closely with them on problems that pertain to our business," Leo says. The brothers have constructed and donated equipment, as well as bulbs, for research. WSU scientists are allowed to conduct field trials on WBC land and its greenhouses. "They [WSU researchers] do a percentage of the work here and monitor the results," the company president says. "You can't leave out those research and extension stations throughout the state. They are vital to WSU and its future."

He reflects on his early days in the field and what the experience has taught him and his siblings. If they wanted things, their father told them, "Here's an opportunity to work." They learned early the value of money, earning enough to pay for their own baseball gloves and bikes, and later their education at WSU.

During his years with Washington Bulb Co., Leo has seen his role change and now as president is involved more than ever in the business end of things. He likes working for himself, as do his brothers, and they enjoy working together.

"The quality of life is higher when you like what you are doing," he says, "and when you can make a decent living at it." ■



1



2



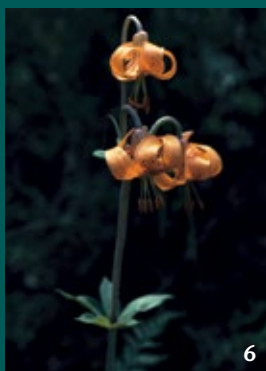
3



4



5



6

Photographs by Larry Hufford.

Fall is the time to plant bulbs—but maybe not the ones you'd planned on

Native bulbs provide subtle beauty to the patient gardener. Also, native flowering bulbs are perhaps the most adept of the wildflowers at survival tactics.

Bulbs lie dormant for most of the year, three to 10 inches below the soil surface, where they benefit from ground moisture in winter and early spring. Once they sense the time is right, they send forth leaves, a stem, and finally delicate flowers. The flowers stay just long enough to produce seed—days for some, weeks for others. As moisture wanes, the plants vanish into dormancy. Some flower in early spring, others in early to mid-summer. At one time the bloom of each flower was a signal to native peoples that fish were coming or animals were migrating, or that other life activities were beginning.

You might be tempted to bring home plants from the wild. But don't. The practical reason is it doesn't usually work. Particular site requirements and finely tuned root systems prevent transplanting success. The moral reason is that overcollection and disappearing habitat have made some of our native species rare.

Wild Onions, *Allium* (1). About 30 species of wild onions grow abundantly in fields and plateaus where rock layers hold the spring moisture. After blooming and setting seed, they disappear for the rest of the year. All have an onion odor. The cooked bulbs of most of the species were a food source for Native American tribes. Seeds of wild onions easily germinate in gritty, sandy potting soil, but must grow two to three years before planting out.

Camas, *Camassia* (2). Camas flowers caused Meriwether Lewis to write of the blue meadows of blooming camas as "seeming to be lakes of fine, clear water." Masses of the blue spires can still be found throughout the state in open, undisturbed grassy areas and on moist slopes in early May. They require wet ground in winter and spring, but like most bulbs, need to dry out after flowering. The edible, onion-like bulbs were an important food source for Native American tribes. Early white settlers to the region ate a chutney-like food made from camas bulb, salmon, and blackberries. A similar bulb, the toxic **DEATH CAMAS, *Zigadenus elegans***, is almost identical, except for its white flower.

Lilies, *Lilium*. Although only members of the genus *Lilium* are true lilies, three other Northwest genera host flowering bulbs commonly known as sego lily, mariposa lily, avalanche lily, glacier lily, fawn lily, chocolate lily, and checker lily. They range in height from five-inch yellowbells to brilliant orange four-foot tiger lilies.

SEGO and MARIPOSA (3) LILIES, *Calochortus*, are among the most exotic looking of the native flowering bulbs. Mariposa lilies grow in ponderosa pine and grassland habitat of Eastern Washington and in sub-alpine conditions. **AVALANCHE and GLACIER (4) LILIES, *Erythronium*,** often bloom through the last few inches of snow. **FAWN LILIES, also *Erythronium*,** are native to coastal Washington in moist, shaded, and forested sites. **CHOCOLATE and CHECKER LILIES, *Fritillaria*,** have hanging bell flowers colored an unusual brownish maroon speckled with light green mottling. **YELLOWBELLS, *Fritillaria pudica* (5),** are found in early spring in sagebrush and ponderosa pine ecosystems of Eastern Washington. **LEOPARD and TIGER (6) LILIES** are two different species of *Lilium*, the true lilies. They grow in moist, woodland settings on both sides of the Cascade Range.

While there are other native flowering bulbs, the ones in this article are most likely to be seen by the casual hiker. For those who want to enjoy them in their home gardens, most of the flowering bulbs described here can be found in specialty garden catalogs. They will be more expensive than more common plants because of the long and involved propagation process. Your success in bringing them to your home will depend on your perseverance in finding nurseries that carry them and in providing a naturalized site that closely matches their native habitat.

—Tonie Fitzgerald

Tonie Fitzgerald is a WSU/Spokane County extension agent in horticulture and author of *Landscaping with Native Plants in the Inland Northwest* (Cooperative Extension 2001) and *Gardening in the Inland Northwest*, (Washington State University 2001).

genetically modified foods WHAT'S IN IT FOR

Genetically modified foods could well be the solution to a number of problems, from pesticide toxicity to world hunger. But neither the technology nor the issues surrounding it is as simple as planting a seed in the ground.

BY TIM STEURY

ILLUSTRATIONS BY
DAVID WHEELER

BUD RYAN IS EXCITED, really excited, about his new potato—even though it is almost an afterthought.

Ryan, a fellow with the Institute of Biological Chemistry at Washington State University, is best known for his work with tomato plants and their defense systems. In the early 1970s, he discovered that a tomato plant's defensive molecules, protease inhibitors, are activated by an insect chewing on its leaf. Protease inhibitors, when eaten by an insect, effectively deactivate the enzymes the insect needs to digest the plant proteins. The insect gets a very lethal stomachache.

Nearly two decades later Ryan and his technician, Greg Pearce, discovered the essence of the signal that activates the defense system, the first polypeptide hormone to be discovered in plants. Then he discovered the gene that keeps the response on all the time. It's a beautiful system. A wounded plant is a dangerous plant, on full alert all the time.

This is profound work. Plants are complex puzzles. They do not reveal their secrets without much work and ingenuity. "Profound" does not, however, necessarily mean "commercial." Turns out the engineering required for these Rambo tomatoes is too complicated to use in the field. And besides, says Ryan, insects are not really as big a deal in tomatoes as are pathogens.

Still, his work's a *very* big deal. It represents a tremendous amount of basic plant science, waiting to be applied. But important as the basic science is, it would be nice to see it applied.

And then it occurred to Ryan:

Let's see what happens if we turn this gene on in potatoes.

Tomatoes and potatoes, you see, are closely related. In fact, Ryan began his work in potatoes, but switched to tomatoes, because of the tubers, which messed up the way he did his analysis.

"So we said," he says, "let's try a potato."

So they did. And sure enough, it turned on the defense genes in the leaves. What it also did, however, was *double* the soluble protein in small tubers grown in a greenhouse.

"We should have done this 10 years ago," says Ryan. "Sometimes things are so bloody obvious, and you're so focused on what you're doing. . ."

The beauty of this potato is that the protein doubling occurs because of one gene. Things usually aren't that simple. And it's not even a gene you'd worry about eating; because it's so powerful, it occurs in a very low concentration. Potato protein is just about the best protein you can eat.

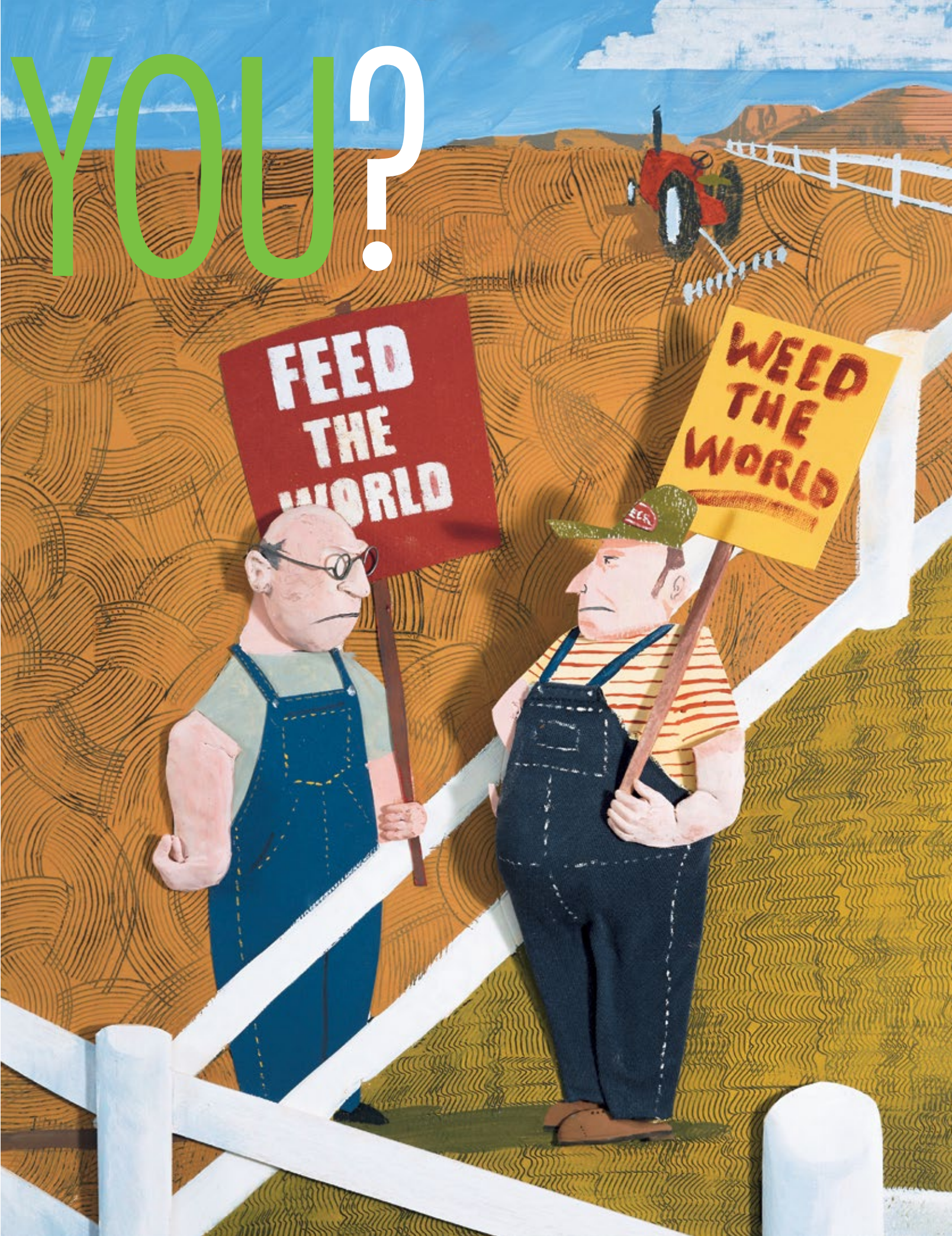
"If they ever accept GM [genetically modified] foods," says Ryan, "this could be a wonderful food."

Let's get real

IT'S THESE "THEY" who frustrate Jim Cook to no end.

Cook recently wound down a long, illustrious career with the USDA here at WSU focused on research to help control root diseases in wheat varieties with no genes for disease resistance. Now he occupies the Cook Endowed Chair in Wheat Research in the departments of Plant Pathology and Crops and Soils and has built a new career as a defender and promoter of plant biotechnology, which he says is needed as part of more

YOU?



Jill McCluskey worries that if Washington wheat growers were to start growing genetically modified wheat, they

efficient and resource-conserving cropping systems.

Today he is frustrated about fat. Or at least the reason we worry about it. The only place in the world you have to drink 1 percent milk, he exclaims, is the United States. And it's all for naught!

But what does fat have to do with GMOs (genetically modified organisms)?

Neither our obsession with fat nor our fear of GMOs, says Cook, is based on science.

Soon after World War II, people mysteriously started having heart attacks in epidemic proportions. Why was this? Well, could it be that it was a complicated manifestation of our higher standard of living? Could be. Could it be that we were living longer, so that diseases of old age started occurring with greater frequency? Could be.

However, being the simple-minded Puritans we tend to be, we looked for something simple and demonic to blame. Fat!

But there's nothing to it, says Cook, citing an article last year in *Science*. (March 30, 2001. It's a wonderful article for those of us who understand that fat gives food flavor, that fat satiates, and that bacon and real ice cream are gifts from the gods, as is the walk after dinner to keep the flab down.)

Heart attacks stem from a complicated mix of culture, genes, age, and diet. But a similarly complicated mix of semi-solid science, well-intentioned but misguided government commissions, a medical establishment eager to find THE CAUSE, and an equally eager media and public unable to understand anything more complicated than apparent single-cause/bad-effect, gave us blue milk and fat-free yogurt.

Just think how morally confused we could be by yogurt genetically engineered to be fat free!

Speaking of which, what *about* our fear of Frankenfoods, as the more excitable among us call genetically modified,

or GM, foods? Nonsense, says Cook.

That fear is based on ignorance of science, inadequately understood research, fear-mongering by activist groups interested primarily in self-perpetuation, and guys like Jeremy Rifkin trying to sell books to people's fears.

Let's take the case of the Monarch butterfly. *Nature* published a paper reporting that Monarch caterpillars die when fed pollen in the laboratory from *Bt* corn.

Bt crops contain a gene from a bacterium called *Bacillus thuringiensis*. *Bt* produces a protein that is toxic to certain insects. Plants that contain the *Bt* gene thus have a custom-built defense system. The fear raised by the Monarch study was that the larvae would feed on toxic *Bt* corn pollen that drifted onto the milkweed that is actually their preferred plant. The pollen that the larvae were fed in the study was from an early, rather crude version of *Bt* corn that expressed the toxin throughout its whole system, including its pollen. The current version of *Bt* corn expresses the toxin only through its tissues, not its pollen.

"The public only heard that *Bt* corn kills Monarch butterflies," says Cook. "They never heard anything about the six papers that were published in the *Proceedings of the National Academies of Sciences* . . . that laid that whole thing completely to rest, that it's a non-issue, that the management used to grow corn affects Monarch butterflies, not *Bt* corn, not just corn with that gene in it.

"We've had a whole series . . . of mistakes in science, of premature publication, inadequate science, that hit the media big time. Then all the follow-up that disproves it never gets aired."

Case closed? Well, sure, says Cook, if we could all just base our thinking on science. Genetic engineering is a powerful tool. Genetic engineering can produce crops that are more nutritious, more productive, more drought tolerant—the possibilities are endless. Its promise is hampered largely by our fear of change.

Perception is reality

UNFORTUNATELY, however, though science might be reality, it is not necessarily the standard for public perception.

Jill McCluskey, an agricultural economist at WSU, worries about Washington wheat. McCluskey worries that if Washington wheat growers were to start growing genetically modified wheat, they could move from a low market to no market. Ninety percent of Washington wheat is sent to Asia. McCluskey has conducted research about consumer perception about GMOs in Japan. Although Japan accepts genetically modified grain, it instituted a new system of mandatory labeling of GM food in 2001. In contrast to practice in the U.S., not only can non-GM food be labeled, but food that has not been segregated as non-GM must be labeled.

Such a policy, says McCluskey, reflects growing consumer concern in Japan about food safety, a concern that carries over to genetically engineered food.

Partly responsible for this perception, says McCluskey, is the lingering question, "what's in it for the consumer?" Genetic engineering as currently applied to agriculture benefits only the developer and the producer. Unless there are price reductions, the consumer sees no immediate benefit whatsoever—only an unknown threat.

Currently, no Washington wheat is genetically modified by use of the new tools of biotechnology. This could change, however.

GM crops in the United States are predominantly of two types, the previously mentioned *Bt* crops and Roundup Ready. Roundup Ready plants contain a gene that makes them resistant to the herbicide glyphosate, or Roundup, which is produced by Monsanto. A farmer can spray Roundup on his Roundup Ready corn or beans and kill all the competing weeds without harming the crop.

could move from a low market to no market.

By 2001, an estimated 69 percent of the cotton, 26 percent of the corn, and 68 percent of the soybeans grown in the U.S. were genetically engineered. The bulk of the corn and soybeans was raised for livestock feed.

Compared to most herbicides, Roundup is relatively benign. It kills plants by interrupting a biochemical pathway peculiar to plants, and it breaks down rapidly in the soil. Since the enzyme targeted by Roundup is specific to plants, Roundup is harmless to animals and people.

Kim Kidwell is the spring wheat breeder at WSU. Her job is to develop new spring wheat varieties for Washington State.

"I am not anti- or pro-GMO," says Kidwell. "But I am pro-farmer."

With that in mind, she and her lab started developing a Roundup Ready wheat.

"My philosophy was that we couldn't catch up if we never started. If all of a sudden GMOs were welcomed on the marketplace, and people were like, 'Oh, we want this GMO thing tomorrow,' it would've taken us years to catch up."

Developing the Roundup Ready wheat represents only a small fraction of Kidwell's work. Even so, she was hesitant to do it. "It took me a year and a half to create a situation with Monsanto that I felt was acceptable, where we weren't penalizing the traditional breeding program by taking this on, where they weren't allowed open access to all my germplasm."

And herein lies one of the thornier problems with GMOs, that of ownership. Although the patenting of genetic material offers protection and reward to the developer of new varieties, it also raises a number of ethical and economic questions.

Kidwell's hesitancy is shared by many Washington farmers. They understand how brutal markets can be and how real consumer perception is when it comes to

AMONG THE ISSUES

Genetic modification of plants is not one issue. It is many:

INSECT RESISTANCE • Of primary concern is the insertion of the *Bt* gene, a bacterial gene, to confer defense against various caterpillars. Some have expressed concern that overuse of *Bt* crops will cause insects to develop resistance against the natural toxin. A recent report from the American Academy of Microbiology, of which Linda Thomashow, WSU USDA, was a co-author, concluded that "concern that insect populations will develop resistance is justified." It goes on to discuss effective management strategies for avoiding the development of resistance and recommends that "resistance management strategies require continual evaluation and improvement."

HYBRIDIZATION • When transgenic crops hybridize with wild plants, the introduced genes can be passed into the wild plants. Wild plants will thus undoubtedly acquire traits from the transgenic crops. Whether or not this will cause problems has yet to be determined.

GENETIC POLLUTION • Of particular concern is the passing of trans-genes into reservoirs of biological diversity, such as Mexico's teocinte populations. Some scientists propose that such introduction actually enhances biological diversity, while others worry that the introduction of foreign genes will disrupt rich genetic reservoirs that are essential to maintain biodiversity.

OWNERSHIP • Many scientists are concerned that the patenting of genetic material inhibits the scientific process. Others believe patenting is necessary for incentive. This summary belies the complexity of the subject.

LABELING • Some countries, including Japan, allow the labeling of non-GM foods, allowing consumers to choose whether or not they want to consume them. The U.S. does not allow such labeling. Many scientists and consumer advocates believe the consumer should be able to choose, whether or not GM foods actually present a risk. Others claim that the segregation of GM from non-GM foods is unnecessary, if not impossible.

HUMAN HEALTH EFFECTS • So far none have been detected. Potential problems include allergic reactions to proteins produced by genes inadvertently inserted into engineered plants along with the desired genes. Safety measures for genetically modified crops are more exacting than those for traditionally bred crops.

Paul Lurquin comments, "nobody has ever questioned the importance of ethics in the genetic manipulation of human beings. Why should there be lower (or no) standards in the case of our most basic needs: crop plants?"

economics. So what if Roundup is vastly better environmentally than 2, 4-D? Tell that to your average Japanese shopper. It's the vague, undefined threats of genetic modification that hover ominously at the top of their worry chart.

"What I hear is if one farmer grows it [Roundup Ready wheat], it's going to ruin the whole system," says Kidwell. "I've never seen growers more passionately vocal about anything."

What's yours is mine

STEVE JONES, WSU's winter wheat breeder, refuses to breed Roundup Ready wheat in the first place, not out of opposition to the technology itself, but out of concerns over ownership.

It was only in the mid-1980s that the first gene was patented. Previously, no one had the right to claim a life form, or any part of that life form, as their own.

The world changed dramatically when that gene was patented. The transgene technology had opened a brave new world to the molecular biologist. Problem was, there wasn't any money in it. Develop a new transgenic rice, and what happens? Farmers will buy it once, then save their own seed. Where's the profit in that?

Well, good point. However, says Jones, that line of thought, pragmatic as it is, has taken university research and plant biotechnology well down a path fraught with conflict of interest and work more motivated by profit than a desire for knowledge or the public good.

Jones believes fervently that corporate money translates into corporate interest and that the wheat genes that WSU breeders have been working with over the last century belong to the people of Washington and should not be contaminated by corporate support.

As an example, he cites the

"Clearfield" system developed by the BASF Corporation. The system relies on a wheat developed not through transgenic methods, but through mutation, to resist an herbicide developed by BASF called "Beyond." As with Monsanto's system, the BASF wheat is planted, and the Beyond herbicide kills all plants except the wheat. Farmers who plant the wheat must sign a "stewardship agreement," that they will not save seed to replant, but rather buy seed from BASF every year.

One of the wheats that BASF used, says Jones, is Madsen, a WSU-developed variety. "They're doing what we said all along, take our wheat, stick a gene in it, and sell it back to the farmers."

"I don't understand how universities can be involved

with this," says Jones, referring to academic-corporate collaboration in plant biotechnology. "If I help produce this wheat, and I go to one of the growers we work with and have worked with for 40 or 50 years, worked with their fathers even—what, we're going to sue them?"

Jones is referring to the method used by such companies to protect their genes. Monsanto recently sued an organic farmer in Saskatchewan when investigators found Roundup Ready genes in his canola. The farmer claims the genes got there through genetic contamination from a neighbor's Monsanto-developed canola.

In spite of this kind of ugliness, however, Jim Cook dismisses corporate ownership as a concern. "I'm not worried about that one," he says. "American agriculture is what it is because of a combination of private and public investments."

But others *are* worried.

In his 2001 book, *The Green Phoenix: A History of Genetically Modified Plants*, Paul Lurquin, a plant geneticist at WSU, raises a number of concerns over transgenic plants. Lurquin, who has been involved in plant transgenesis from the beginning and whose lab developed a transgenic pea resistant to viral infection, is obviously not opposed to the technology itself. Rather, he writes, his concerns "call for a hard evaluation of the use of applied, corporate biological science in human affairs. After all, nobody has ever questioned the importance of ethics in the genetic manipulation of human beings. Why should there be lower (or no) standards in the case of our most basic needs: crop plants?"

These concerns focus on the central problem of ownership.

And here, the debate shifts a little. Although it is difficult to sift through the extensive hype generated by biotech companies over biotech's ability to "feed the world," the developing world does appear to hold the most need for biotech. Indeed, much has been made of a

HIGH TECH HARVEST: Understanding Genetically Modified Food Plants BY PAUL LURQUIN WESTVIEW PRESS, 2002

Paul Lurquin, professor of genetics in Washington State University's School of Molecular Biosciences, believes the public has the right to know and understand the food it eats.

He also observes that no one cared enough about public understanding to explain the science behind the genetically engineered food on our grocery shelves. So Lurquin set himself to that task in this new book. Besides explaining the history and science of plant genetic engineering, Lurquin is refreshingly candid and skeptical about aspects such as corporate motives and the actual need for certain products. Lurquin's involvement in plant biotechnology from its beginnings makes this an authoritative and thoughtful work. Read it, and you'll know what you're eating.



coming “doubly green” revolution that will take up where the first green revolution left off. However, Lurquin points out a very basic difference between the revolution fomented by Norman Borlaug with the help of dwarfing wheat varieties developed by WSU breeder Orville Vogel, and the anticipated revolution. Whereas the genetic material used to develop the green revolution’s high-producing crops that bolstered world food supplies was not owned by anyone and thus was available to anyone, the plants of the new green revolution will come stamped with patents claimed by corporations and universities.

Ownership is a subtle and profound problem, says Peter Wyeth, an agricultural economist with International Programs. In spite of using the need of the developing world in their public relations, corporations have little motivation to develop varieties appropriate to Mali or Burkina Faso.

“The fact of the matter is, the big money in GMOs is not going to be in helping third world countries,” says Wyeth. “They don’t have the money to buy seed every year.”

Thus, he says, if the marvelous promise of biotechnology is ever directed toward the problems of the developing world, the impetus must come from public research. However, public researchers may be left with nothing to work with if all the genetic material has been claimed as intellectual property.

Attack (or splat) of the killer tomatoes?

BESIDES, the much heralded doubly green revolution may never happen if we’re not careful, says Tom Lumpkin. Lumpkin, the chair of Crops and Soils at WSU, thinks genetic modification holds enormous potential, but worries that we’re headed for problems.

“I’m very much for transgenics,” he says, “but I don’t want it to be dirty.



I want it to be very precise. I want to prove it 10 times over.” Take canola, he says. Canola is the crop that blooms vibrant yellow across Eastern Washington fields in late spring. “That whole *Brassica* family of cabbage and cauliflower and broccoli and rapeseed and mustard, it’s very promiscuous,” he says.

Promiscuity in plants is potentially an environmental rather than a moral problem. Canola was one of the first field crops to be genetically engineered, with both Roundup Ready and the *Bt* gene. Because *Brassicas* can crossbreed with a number of wild plants, those transgenes can move into wild populations.

“It’ll move just about anything you put into one of those crops. It’ll move it to wild species. So you end up killing unintended targets. Insects that are attacking mustard out in the middle of nowhere in Saskatchewan are going to die because that *Bt* moved.”

Just for the sake of argument, though, let’s allow that maybe a few insects dying out in the middle of nowhere is just one of those things that goes along with progress. These things happen, right?

So maybe humanity can live with the deaths of a few insects, or a few billion, whatever. As long as you don’t think

about the subtle intricacies of ecological interactions, no big deal. We’ve already changed so much anyway, right?

But there’s another kind of transgenic that is on Lumpkin’s mind.

“We’ve got scientists . . . putting non-food products into food crops, where those food crops will be grown for pharmaceutical or industrial uses, not for human consumption. . . . If we start contracting with growers to produce some powerful cancer drug or some special pharmaceutical in wheat or barley or peas, some farmer is just going to mix it up sometime. Some truck driver’s going to get the wrong instructions, somebody will put the wrong stuff in the planter, and it’s going to end up in the food chain, in our beer, in our bread, there’s going to be accidents.”

And that’s what really worries Lumpkin. One accident, and the public’s going to turn against the technology.

“We’ll lose one of the most powerful tools we’ve ever had to do good because we didn’t set up policies for careful use of it,” he says.

To an extent, the National Academy of Sciences (NAS) agrees with Lumpkin’s concerns. It released a report this spring that advocated tighter regulation of

So maybe humanity can live with the deaths of a few insects, or a few billion, whatever. As long as you don't think about the subtle intricacies of ecological interactions, no big deal. We've already changed so much anyway, right?

transgenic crops. The government, says the report, should not only more carefully review the environmental impact of genetically engineered plants before approving them, but also monitor the crops once they are grown commercially to check for unforeseen effects.

Although he is one of three NAS members at WSU, Jim Cook has concerns about some parts of the report.

"I hate to say this about academy studies," he says, "we're subject to politicization, just like every other institution." A few years ago, Congress decided that since the NAS works for the government, committees that do the studies need to be selected through FACA (Federal Advisory Committee Act), which determines political persuasions and what political leanings might be. In order to avoid such a process, the NAS agreed to make its committee appointments more public. That resulted in pressure from environmental and other groups, says Cook, which resulted in a lopsided report.

It's all about "process versus product," says Cook. Much current and desired regulation concerns the process of accomplishing an end plant product. What we should focus on, says Cook, is the product.

"You can get a product by conventional breeding, by mutation breeding, by genetic engineering, and you might get the same product in the end, which is a plant resistant to European corn borer, by a certain gene and a certain protein.

"The process approach says if you get a resistant plant using genetic engineering, it needs to be regulated. If you get it by traditional breeding, it doesn't need to be.

"The call for more regulations is largely political," Cook argues. For one thing, "Big companies like all this regulation. It acts like a filter to keep the small guys out of the competition. These are expensive things to go through."

Cook also understands that regulations have made it possible to move ge-

netically modified crops from the laboratory to the field. "As a scientist, I have come to understand that most, if not all, policy on science and technology comes down to a combination of science and politics," he says. "This is the job of the policy maker, but as a scientist, it is my job to put the best science on the table."

Jim Carrington, formerly with the Institute of Biological Chemistry at WSU, is one of the authors of a similar report released by the NAS in 2000, a report also criticized by Cook. Carrington agrees with Cook "100 percent" that GM crops are almost certainly safer than conventionally bred crops, "because we can reduce usage of hazardous pesticides and chemicals."

However, he defends the position of the committee that produced the first NAS report. In an e-mail interview, Carrington writes, "Most of the members on the 2000 committee were cognizant of the fact that if a mishap occurred involving a GM product, it would have a devastating effect on eventual integration of this beneficial technology.

"So the committee came in with a relatively conservative approach that said 1) let's make regulatory decisions based on science and reasonable, rational judgments, but let's not scrap the whole regulatory system, and 2) let's get MORE DATA that support safety or that enable us to predict and measure hazards more accurately."

Time out

BY THIS POINT, you're probably wishing I'd just get to the point. Is this stuff safe to eat, or isn't it? As you've undoubtedly noticed, however, scientists don't exactly agree on these issues. Their sense of risk involved generally varies according to what kind of scientist they are. For example, *in general*, ecologists with an evolutionary bent tend to worry more about environmental risks than do molecular biologists. The ecologists would say that

molecular biologists do not understand the big picture. Molecular biologists would say that ecologists just don't understand molecular biology.

However, here's a major truth that unites the scientists. Scientists are very uncomfortable claiming absolute certainty about anything. This is not moral relativism. This is just the nature of science. Whereas activists, journalists, politicians, and fundamentalists of any persuasion love moral absolutes, scientists prefer to evaluate effects in terms of risk.

No free lunch—but maybe a better one

NOT TO DIMINISH the accomplishments, says Mike Kahn, but *Bt* and Roundup Ready were relatively easy manipulations, mere single-gene transfers. Now comes the hard—and interesting—part. Kahn, a microbiologist at WSU, is searching for what might be the holy grail of plant biotechnology, the coupling of nitrogen fixation to non-leguminous plants.

All living things require nitrogen for building many important biological molecules, including DNA, RNA, and proteins. Animals get their nitrogen through other animals and, ultimately, through plants. However, even though the atmosphere is 78 percent nitrogen, the nitrogen is in a form that is too stable for plants to use. It must be "fixed." The most efficient way for plants to get nitrogen is through a symbiotic relationship with bacteria called *rhizobia*. The *rhizobia* convert the atmospheric nitrogen to ammonia, which is more chemically reactive and thus usable to plants.

Partly because it is so soluble, nitrogen must be continuously replaced in the soil. Plants that have not established a nitrogen-fixing symbiotic relationship depend on nitrogen that has built up in the soil by legumes, or a few other plants, through other less dependable



processes, or through nitrogen fertilizer. If non-leguminous plants, such as rice or corn, could be convinced to harbor *rhizobia*, crop production could be greatly enhanced, saving the expense of buying and transporting nitrogen fertilizer.

Other research focuses on increasing not just the capability, but the nutritional content. Maurice Ku is trying to introduce key genes from maize into rice that would prompt the rice to mimic the efficient C_4 plant (see Summer 2002 WSM).

Other efforts focus on plants that will be more useful. Barley, for example, a widely adaptable grain grown in Eastern Washington, cannot be fed to chickens. Chickens cannot fully digest a certain carbohydrate in barley. They can be fed an enzyme supplement to aid digestion, but this is expensive. Otherwise, Washington chicken farmers must feed corn and other grains shipped in from the Midwest.

Diter von Wettstein, of Crops and Soils, has developed a barley, currently undergoing field trials, that produces this enzyme on its own. It is so effective, in fact, that a small amount of the modified barley can be mixed with regular barley to make it digestible. If it proves viable, Washington chicken growers could feed their birds Washington-grown barley, rather than the more expensive Midwestern corn.

Finally, it is important to understand that "biotechnology" and "genetic modification" are not synonymous. Much of

the very impressive work going on in biotech does not involve the artificial transfer of genetic material from one plant or animal to another, but rather uses newly developed biotechnological analyses and techniques to enhance traditional breeding practices. Wheat breeder Kidwell, for example, is coupling cutting-edge techniques with traditional breeding to develop wheat lines with enhanced nitrogen-use ability and protein production.

In his recent *Seeds of Contention: World Hunger and the Global Controversy over GM Crops*, Per Pinstrup-Andersen, an authority on world food production who spoke at this year's commencement, notes that 820 million people have too little to eat every day. He cites an estimate generated from Food and Agriculture Organization figures and predicted population and calorie requirements in 2025, figuring that 70 percent of the food requirement can be generated by traditional plant breeding, increased use of fertilizer, and improved irrigation. The other 30 percent of production increase is going to have to come from biotechnology.

"Even such a conservative goal as securing 30 percent of the growth in food supply over a twenty-five-year period through biotechnology may well prove difficult to attain. The private companies that are the major players in this field have not geared their research toward yield increase in developing

countries but toward solving the problems of farmers in the wealthy countries." (Pinstrup-Andersen 92) In other words, the dynamic thinking and leadership required to direct the technology must come from land-grant research universities.

Given the disagreement among faculty researchers, Pinstrup-Andersen's observation might seem paradoxical.

Not at all, says Kidwell. Such debate shows the strength of academic freedom. Because there is no predetermined agenda—and no corporate requirement to pass the shareholders a profit—academia is where such debate must take place. Cook agrees, as presumably do most researchers who perceive the technology as more than merely a means toward personal gain.

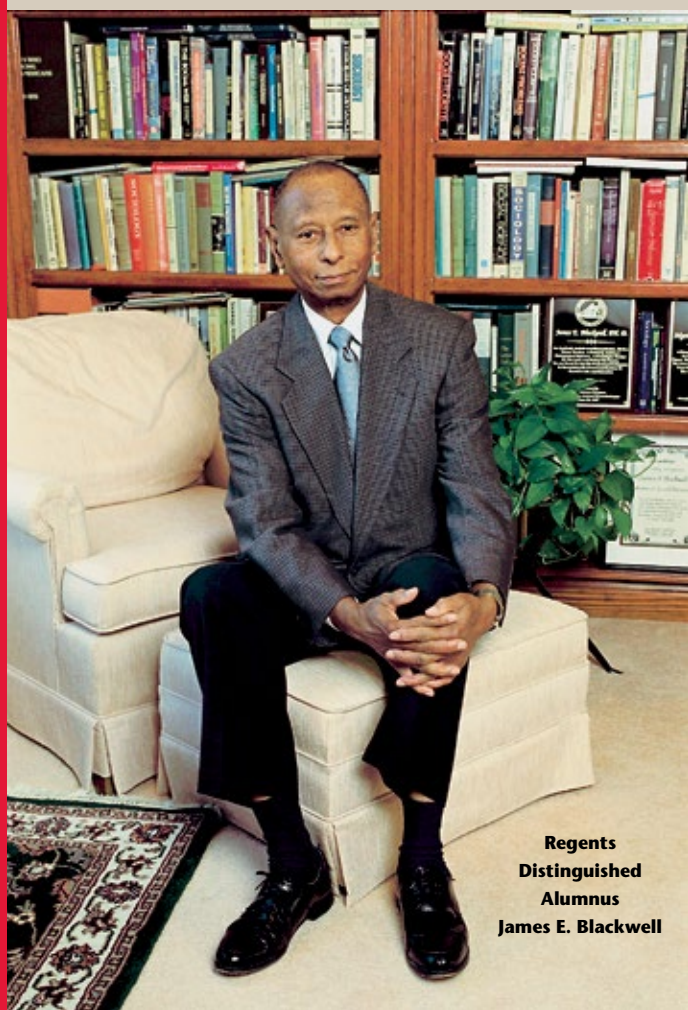
Meanwhile, on a sunny morning in early June, Bud Ryan watches eagerly as workers plant his new potato in a carefully prepared plot. As soon as tubers start forming on the new plants, he will test them. Will that protein-doubling hold up in the field? Will there be any unanticipated developments in the plant?

Not only is he excited by its potential, Ryan knows exactly what he wants it used for. Maybe, he hopes, it can help provide protein to undernourished people. WSU will patent it, of course. However, "I have an agreement with the University," he says, "that if underdeveloped countries want this they can get it." ■

BLACKWELL MAKES HIS MARK

by Pat Caraher

Noted Sociologist Receives WSU's Highest Honor



Regents
Distinguished
Alumnus
James E. Blackwell

©2002 Irving Johnson/IRV3.com

IMAGINE JAMES E. BLACKWELL'S REACTION when he found a cross burning in his San Jose, California, yard. Anger? Frustration? Fear?

No. Surprise.

After all, this was California in 1962, not the South. Blackwell was teaching at San Jose State University (SJSU), his first job after completing a doctorate at Washington State University three years earlier.

Throughout his life, the black sociologist has tried to bridge the gap between the races. As much as possible, he says, he sought to bring "a greater measure of social, economic, and racial justice to the community" by facilitating inter-group understanding.

Blackwell, 76, began that effort 40 years go. Under his presidency, the San Jose chapter of the NAACP increased its inter-racial membership from 250 to 1,200 in a single year. More important, the local chapter fought successfully to end discrimination in the community's public recreation facilities, pressured the city council to establish fair housing policies, protested against employment discrimination in local department stores, and helped six students enroll at SJSU on tuition waivers after being expelled from Alabama State University for protesting segregation in Alabama. The chapter also raised thousands of dollars in bail money for Freedom Riders in the South.

Now retired in New Orleans with his wife, Myrtle, Blackwell refers to the four years in San Jose as "a critical time" for him.

"We were outspoken about the goals we had articulated to change the pattern of race relations in San Jose," he says. The NAACP chapter didn't have an office. Members met in private homes, including Blackwell's, where the cross was found afire outside.

In mid-April 2002 Blackwell returned to Pullman to become the 31st recipient of the WSU Regents Distinguished Alumnus Award, the highest honor the University bestows. (See sidebar.)

WHEN HE ENROLLED at Washington State in 1955, there were only 15 black students on campus. Culture shock? "No," he says. There were even fewer blacks in his college at Case Western Reserve University in Cleveland, where he had earned bachelor's and master's degrees. "I knew each one by name."

Blackwell was attracted to WSU by the reputation of its new doctoral program in sociology and the opportunity to teach. He found the faculty helpful and "non-patronizing."

"I had to prove my merit just like anyone else. That's what I liked about Washington State. It was one of the most useful, intellectually stimulating, and challenging experiences I've ever had."

In the late '40s and early '50s, sociologists T.H. Kennedy, dean of the College of Social Sciences, and Wallis Beasley, chair-

REFLECTIONS OF AN ACADEMIC: Connections to the Real World

EXCERPTS FROM JAMES E. BLACKWELL'S ADDRESS AT
WASHINGTON STATE UNIVERSITY, APRIL 16, 2002

man of sociology, recruited more than a half dozen promising graduate students from historically black colleges. Among them were Charles Ullman Smith '50 and Anna Harvin Grant '56, the first black man and woman to complete their doctorates in sociology at WSU. Blackwell came later. So did William Julius Wilson '66, who received the Regents Distinguished Alumnus Award in 1988.

Beasley remembers Blackwell as "a very good teacher . . . articulate." He was elected president of the Associate Graduate Students; of South House, a men's residence hall; and of the Beta of Washington Chapter of Alpha Kappa Delta, the national honorary in sociology.

Sociologist James F. Short was Blackwell's advisor and chaired his dissertation committee. "He was a wonderful graduate student. Very personable, and a great teacher," Short says. Blackwell's dissertation was titled, "Involuntary Separation: Effects of Imprisonment on the Family." In the course of his research he interviewed inmates at prisons in Walla Walla and Monroe, as well as their wives, girlfriends, and family members.

IN 1970 THE UNIVERSITY of Massachusetts hired Blackwell to build its fledgling Department of Sociology and Anthropology at its five-year-old Boston campus. He intended to stay five or six years but remained for 20. Under his chairmanship (1970-76), the faculty in his department tripled from 11 to 34 members.

At a meeting shortly after his arrival, he found he was the only minority in the room. Thereafter, he made it a point to

"I have vivid memories of the homeless in Calcutta rolling out their straw mats on sidewalks at dusk for a night's sleep because they had no shelter. I can still visualize the unbelievably long queues of hungry people lined up at a distribution site for just one cup of rice."

"It was evident to me then as it is now that many occupants of higher echelons of political authority and social power are disturbingly disconnected from the masses. This is as true in developing nations as it is in highly developed Western democracies."

"Even in the face of unyielding and devastating poverty, massive social deprivation and caste-structured inequalities, many people resigned themselves to the status quo and sometimes regarded change as an attack on their culture and established traditions."

"I have absolutely no illusions that racism has disappeared or that people of color operate on a level playing field. However, I am convinced that there are many persons in leadership positions who continue to work diligently to alleviate these problems."



James E. Blackwell, fourth from left, was photographed with friends and family following the 1959 Washington State University commencement on Rogers Field. From left are Joe Perry ('61 Ph.D. Soc.), retired sociologist at Bowling Green University, M. Jay Crowe ('59 M.S. Soc.), Evelyn MacDougall ('59 M.S. Soc.), Blackwell, Jean Conyers, wife of James Conyers ('62 Ph.D. Soc.), retired Indiana State University professor, who took the photo, and Blackwell's sister, Mary Louise Henderson, now deceased. A nurse in Los Angeles, she came to Pullman to attend the graduation.

PHOTOGRAPH COURTESY OF JAMES E. BLACKWELL

stick his head into every office looking for people of color. At the time, minorities filled only 3.5 faculty positions. He challenged the university president to improve the situation. An Affirmative Action office was established on campus in 1971, the first in the university system. "I thought it was important to sensitize officials to the need for a multicultural student body and faculty, particularly in an urban area like Boston," he says. By the time he retired, 18.7 percent of the faculty and more than 25 percent of the students were minorities. Women comprised more than 40 percent of the employees.

"We became a model for New England colleges and universities. We showed what could be done without diluting the standards and quality."

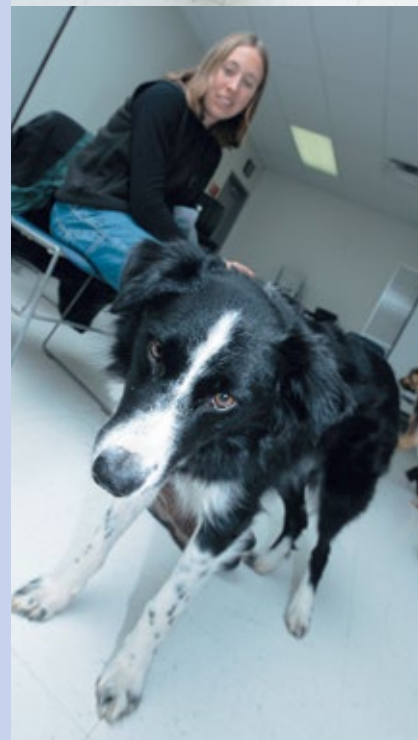
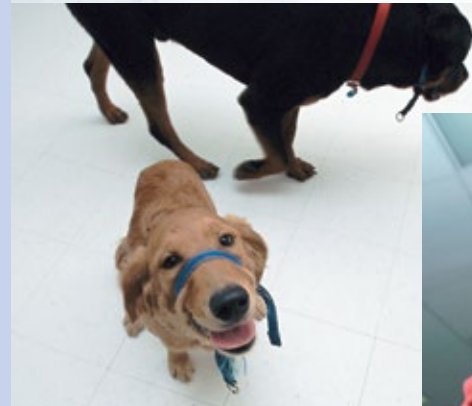
BLACKWELL HAS ALWAYS BEEN a strong advocate of desegregation. He believes in access to higher education and in equality of opportunities for all U.S. citizens. From time to time over the past 30 years, he has worked with various entities to desegregate public higher education, particularly in 18 southern and border states, and he's been called on as an expert witness in court cases involving desegregation. In the '80s and '90s, predominantly white institutions sought his assistance in devising programs that would enable them to recruit more African American students and faculty.

Between his positions at San Jose State and UMass, Blackwell and his wife spent more than two years in Africa. He was acting director of the Peace Corps in Tanzania, and then director in Malawi.

"We were young. We thought we could really make the world a better place," he says. Later, with the USAID and the American Embassy in Katmandu, he traveled to 51 of the 55 political subdivisions of Nepal, a task never before achieved by an American Foreign Service officer. Temporary assignments also took him to India, Bangladesh, Thailand, the Philippines, and Hong Kong.

In 1986, a study reported in *Social Forces* ranked Blackwell number five among black holders of doctorates in sociology, living or dead. He helped establish "the clout of black sociologists" as president of the Caucus of Black Sociologists of the American Sociological Association, according to Short. The founding president of the Association of Black Sociologists, Blackwell has also held the presidencies of the Society for the Study of Social Problems and the Eastern Sociological Society. He is the author of many books, including *The Black Community: Diversity and Unity*.

As a teacher, Blackwell's goal has been to help students gain an appreciation of knowledge, but not for the sake of knowledge alone. "I wanted them to put what they learned to use by going on to graduate and professional schools and becoming important, contributing citizens." ■



Ain't Misbehavin'

If your problem child's a pet, here's where to turn

by Mary Aegerter • Photography by Robert Hubner



SO YOUR CAT has decided that it won't use the litter box, and your dog won't let you back in the living room if you get up and go to the kitchen for a snack.

Or maybe your dog just wags its tail too hard.

Perhaps you need the Animal Behavior Service at WSU's College of Veterinary Medicine.

"If you think you have a behavior problem with your pet, you do," says Catherine Ulibarri, associate professor of neuroethology and director of the consultation service.

Ulibarri started the service seven years ago, when Professor Emeritus Borje Gustafsson, then dean of the College of Veterinary Medicine, decided the school needed it and called her.

"I didn't have tenure, so when the dean asked me to do something, I did it," says Ulibarri. Clearly Gustafsson was right. The first year, the service took 50 calls. Last year, it took more than 500.

Veterinary students do most of the work, with supervision. They start by consulting with clients over the phone, whether pet owners or veterinarians. Clients fill out an extensive behavioral history and send in videos to help diagnose the problem and create an effective behavior modification plan. Some cases are seen "in clinic," and these are Ulibarri's favorites.

Most calls are about dogs and cats. With dogs, it's usually aggressive behavior; with cats, inappropriate elimination. "I'm surprised at how long people will put up with inappropriate behavior," says Ulibarri. People often don't see a way out of these problems, she says, but there usually is.

The service has received more calls about birds each year. "Birds are social creatures, and we isolate them," says Ulibarri. That leads to behavior problems such as feather picking and pulling, or toe biting. There also are occasional calls about horses, but solving behavior problems with horses requires different expertise, she says. And there are occasional calls about smaller pets, though these are less of a problem than dogs. "If a ferret bites, you can keep it in the cage," she says.

Oh, and about that dog that wagged its tail too hard: it was a Labrador retriever owned by an 86-year old woman who was taking blood thinners.

Whenever its substantial tail whacked her legs, it caused bruises. The service taught the dog to lie down when his owner approached and to stand in a stall when he was being brushed. Problem solved.

You can reach the Animal Behavior Service by telephone at 509-335-1589 or via e-mail at behavior@cvm.vetmed.wsu.edu; and you can visit online at www.vetmed.wsu.edu/behavior/ ■

WHO'S TOP DOG—you or your dog?

If you're not, and you're dog-tired of being the underdog, you need the new brochure "Who's the Leader of Your Pack? Tips for a Healthy Human-Canine Relationship." Request it, with an SASE, from WSU Animal Behavior Service, College of Veterinary Medicine, WSU, Pullman, Washington 99164-6520.

THAMES VOICES

by Will Hamlin

The unforced and vibrant multiculturalism, the cacophony of languages and accents—these are the traits of 21st-century London that allow me to conceive something of the excitement of the 1590s.

Will Hamlin is associate professor of English at WSU. His travel to London was funded by a 12-month fellowship from the National Endowment for the Humanities.

LONDON AGAIN. Late April. A coffee shop off Russell Square. I've just paid an outrageous sum for a cappuccino—most of it, I think, for the privilege of sitting down briefly to watch the life outside the window. Later I'll walk over to Foyles on Charing Cross Road to see if a book I've ordered has arrived. Then I'll head home to my B&B on Cartwright Gardens, find some dinner, maybe drink a pint at the Dolphin, do a bit more reading, and turn in.

So goes another Sunday afternoon. Tomorrow I'll be back in the Manuscript Room at the British Library, pursuing the tasks that, given institutional simplifications, are euphemistically classified as "research." What I'm really doing is writing a book about theater and philosophy at the end of the 16th century, trying to explain to my students, and to myself, why the most vigorous and disturbing explorations of contemporary morality occurred in drama, especially in tragedy. It's not enough to say that Shakespeare's astonishing talent answers the question, since his contemporaries—Marlowe, Webster, Middleton, and others—also wrote plays that challenged current orthodoxies and posed questions that still make people uneasy. About

revenge, for instance. Aren't there occasions, asks Kyd in *The Spanish Tragedy*, when private vengeance is the only viable response to provocation? Or sibling incest. Yes, we all feel the kneejerk revulsion. But Ford's *'Tis Pity She's a Whore* suggests that sociohistorical arguments against such behavior may be undercut by systemic corruption within the very societies that advance them.

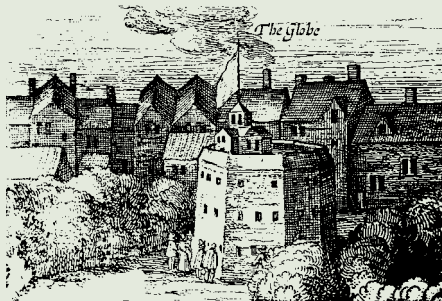
My own hypothesis is that Renaissance skepticism provides a major clue as to why the dramatic debates were so far-reaching. Derived from ancient sources, but transformed in the climate of Reformation theological dispute, skepticism's essence in early-modern Europe lay in the sustained critical examination of all dogmatic viewpoints—even those generated by rational doubt. It was the nemesis of the doctrinaire, the enthusiastic, the unconsidered. It attacked fashionable as well as traditional outlooks, and in the hands of thoughtful practitioners became a corrosive intellectual force that could wear down the sharp edges of virtually any piety or position. The French essayist Montaigne was well aware of skepticism's power; he used it to deride cultural chauvinism and religious warfare in his own scarred



nation. But across the channel English writers also tapped into skeptical habits of mind, even if they weren't fully conscious of it. Whether they mocked Calvinist predestination, like Marlowe in *Doctor Faustus*, or probed the relations between violence and sexual fixation, like Middleton in *The Changeling*, they were passionately involved in thought-experiments that questioned revered orthodoxies of their culture. It might even be said that the most searching moral philosophy in Renaissance England was carried out not by theologians or professional intellectuals but by playwrights for the popular stage.

Of course the London that produced the plays I revere is light-years removed from the London whose archives I haunt. I know the city well—I first visited it in 1968 as a boy of 11 and have returned many times since, including a stint as a college student in the '70s—so I have a good sense of what to expect and am seldom surprised by what I see. But much about London, indeed much about Britain, disappoints me, and I confess that I'm always happy to step back on American soil. In particular I dislike the endless crowds and queues, the grime of 20 centuries of furious inhabitation, the displays of English machismo, the cuisine of public cafeterias, the routine assumption that Americans are cretinous by genetic fiat, the churlish football partisanship, the large-scale absence of the colors blue and green, and the unending suspicion of things continental, especially French. I also get claustrophobic after only a few hours in the city, though admittedly this has more to do with my growing up in Idaho than with anything inherently wrong with London. And invariably, whenever I decide to make a call, someone darts into the phone box just before I arrive.

Still, most of this is trivial. And if the cultural milieu of Shakespeare and Marlowe has vanished, the Thames and the grey London skies have not. Walking west from Southwark Cathedral, passing the New Globe and



looking over the river at the gardens of the Inner Temple, it's not difficult to imagine the contours and colors of a London four centuries earlier. True, the St. Paul's of Elizabethan days has been replaced by Wren's neoclassical behemoth, but you can still wander through the churchyard where the thriving bookstalls stood—though nowadays you're confronted with "Mind the Gap" T-shirts rather than with anti-papal diatribes from the hack theologians of Whitechapel's garrets.

But what most enables my imaginative connection to London's past is its frenetic and polyglot present. The unforced and vibrant multiculturalism, the cacophony of languages and accents—these are the traits of 21st-century London that, more than anything else, allow me to conceive something of the excitement of the 1590s, when the euphoria over Spain's defeat was gradually eclipsed by anxieties about Elizabethan succession, and when the local presses engaged in frenzied competition with those of Paris and Antwerp to flood the English marketplace with treatises on a myriad controversial subjects. It's the age-old and still-evolving life of London's streets and taverns and news-stands—not the sterile electronic life of digital reality—that helps me understand the early-modern harnessing of social energy into theatrical display and critique.

And so however much I love the view from Waterloo Bridge, or the architectural fantasia of St. Pancras Station towering over King's Cross, or the magnificent stone horse from Halikarnassos at the British Museum, what I value even more about London, and what truly aids me in my teaching and writing, is the experience of its chaotic street-life—above all the aural world, the world of

argument and debate and laughter, spilling out from pubs, drifting above row-houses on early-summer evenings. This would have been familiar to Marlowe and Middleton, and it still contributes, I think, to the pungency of public discourse in London. A tradition of fast-paced and incisive social critique is taken for granted in England's capital, a tradition that America can scarcely imagine. And though now the voices are typically channeled elsewhere—into satire, editorial, cartoon, review—in Shakespeare's day they often reverberated on the stage.

There, largely free from religious and political censorship, playwrights captured the doubts and skeptical musings of the urban populace, giving shape and articulate expression to what must often have been thought and spoken. They transformed into fictive time not only the passions but the disenchantments and speculations of a quarter-million people—a population less diverse but just as vocal as that in present-day London. It was a volatile mix of class, status, and religion: puritans, recusants, thriving merchants, evicted farm-laborers, Inns-of-Court students, Dutch artisans, crypto-Jews, vagabonds, courtiers, pimps, nouveaux riches. And all this, combined with the constant infusion of old texts and new arguments, helped render the mental world of the Renaissance stage exuberant, experimental, exhausting. Briefly transplanted from the calm Palouse, I feel some of the same exhaustion after a month in the London of 2002. But I remind myself that what I'm eager to escape is inseparable from what always draws me back. Imaginatively, I mean—but literally too. And even now, somewhere in the depths of the Holborn tube station, a handsome young man from Calcutta is singing "Full fathom five" to the accompaniment of a raucously amplified sitar. More voices along the Thames. ■



ACHIEVEMENT:

n. a thing achieved, especially by skill, work, courage, etc.; feat

Since 1972, the Washington
State University Alumni
Association has recognized
the extraordinary achievements
of more than 350 graduates
through the Alumni
Achievement Award.

To nominate an outstanding alumna/us,
call the Alumni Association at
800-258-6978, or print the form from our
Web site, alumni.wsu.edu

TRACKING THE COUGARS

CLASS NOTES

1930s

Glenn Karl Hall ('31 Educ.), Sedro Woolley, a former high school science teacher, has been retired for 32 years. His hobbies are fishing and gardening. He volunteers one day a week at the food bank. He has traveled to Europe three times and to Hawaii twice. He also has gone around Africa and has visited the Orient, Japan, Hong Kong, and Bangkok.

Winnifred Castle Olsen ('38 Soc.), Olympia, is still busy at "85 plus" giving programs on the black pioneers—"Women in the Media and Women Who Were First"—in Olympia and Tacoma.

Dan Eagle ('39 Fine Arts), Spokane, is self-retired and chairman of the Cougar Coffee Club in Spokane. He designed and donated the four flags, containing the letters W, S, and U, plus the Cougar-head logo, used by the yell leaders at WSU football games.

1940s

Virginia Storm Throssell ('41 Engl.) is a member of the West Contra Costa (California) branch of the America Association of University Women. She served as an observer at the math/science conference on the UC

Berkeley campus in March. The conference attracted about 275 junior and senior high school students. "It was a worthwhile endeavor," she writes.

Mary Lou Cosby-Monroe ('49 Music) of Portland enjoyed taking a cruise. The party included all four children and spouses, plus six grandchildren, as she and her husband, Joe, celebrated their 50th wedding anniversary. She writes, "I'm still singing at age 75, doing solo work with the Portland Community Orchestra." Joe is her accompanist when she does solo work. "We enjoy our grandchildren's sports, traveling, and staying healthy." They are volunteers at an Alzheimer's home.

1950s

Donald Hughes ('50 Elect. Engr.) and his wife, Gladys (x'51), of Longview write, "For a number of years we have had a reunion with five or six couples who were in our wedding party. This year we are looking forward to meeting in Pullman, and hope to see the WSU-Idaho football game. By that time, four out of five couples will have celebrated their 50th wedding anniversaries."

Since retiring early from the San Diego State University faculty, **Bob Hanson** ('53 Rec., '54 M.A. Rec.) established California Camp Realty. The Walnut

Creek resident says he is the only person in the Western U.S. exclusively selling children's summer camps. He owned and operated his own camp in the Sierras for seven years and earlier had a river rafting enterprise.

Last February **Dean Mitchell** ('56 Speech/Comm.) sold KONA AM and FM Radio stations in the Tri-Cities to Commonwealth Communications. The Montana firm operates a network of news, country, and oldies stations in Great Falls and Dutton.

1960s

D. Michael Jones ('64 Bus. Adm.) of Spokane was named president and chief executive of Banner Bank's 30 Pacific Northwest branches and now works out of Walla Walla. He formerly was president of West One Bancorp with headquarters in Boise, and earlier was president of Old National Bancorporation, Spokane.

Janan Watts ('64 Agri. Bus.) of Hagerman, Idaho, received the Western Regional Outstanding Performance Award from the J.R. Simplot Co. at its winter 2001 meeting in Boise. She has been a crop advisor with Simplot for eight years.

Elizabeth Fritz Nettleton ('67 Soc.) has moved from Fox Island to Vancouver. She is a volunteer with the CASA Program (Court Appointed Special Advocate), working with children removed from their homes by the state.

Larry Dixon ('68 Hist., '70 M.A. Hist.) is serving his fifth term in the Alabama Senate after one term in the House. He is executive director of the Alabama Board of Medical Examiners. Last December, he received the Auburn University Montgomery Alumni Association's 2001 Community Service Award for "improving the quality of life of residents and increasing the stature and prestige of AUM."

Paul J. Sager ('68 M.Ed.) retired in 1997 from teaching fifth grade. His teaching career spanned 33 years, including the last 27 with the Mukilteo School District.

1970s

Ken Alhadeff ('70 Gen. St.), Seattle, received the Al Heglund Lifetime Achievement Award from the Big Brothers Big Sisters of King and Pierce Counties in February. Al Heglund ('49 Bus. Adm.) was a founder of the BBSS in King County. Alhadeff, a member of the BBSS board for more than six years, was cited for "his energy, creativity and leadership." Alhadeff is a member and a past president of the WSU Board of Regents.

Attorney **James Britain** ('72 Polit. Sci.) is a partner in the new Bellingham law firm of Carpenter, Hardesty and Britain, which opened January 1, 2002. He earned his law degree at Duke University and has extensive experience in construction litigation. For the past four years, he has been an organizer of the Cougar Club's annual fund-raising golf tournament in Bellingham.

Washington governor Gary Locke has appointed **Rob Fukai** ('72 Bus. Adm./Acct.) director of the Department of General Administration. The former Avista Corp. executive assumed his new post in February. Fukai was appointed a WSU regent in 1997 and serves as board president. He spent nine years on the Spokane School Board.

Linda Olson King ('72 Off. Adm./Educ.) has been teaching for 30 years, including the last 22 in the Business Division at Clark College in Vancouver, where she received the Exceptional Faculty Award in 2001.

Judi M. Kosterman ('73 Educ.) has moved from the White House Drug Policy Office, where she directed the National Youth Anti-Drug Media Campaign, to eGetgoing, Inc. The affiliate of CRC Health Care Corp. has delivered substance abuse treatment in 28 locations across the country for over 20 years.

Gillies receives Alumni Achievement Award



Cliff Gillies

CLIFF GILLIES, longtime executive director of the Washington Intercollegiate Activities Association (WIAA, 1982-93) and former president of the National Federation of State High Schools Association (1990-91), has received the Washington State University Alumni Achievement Award. The award was presented February 4 during the 2002 Man of the Year banquet in South Bend, Washington.

Gillies was recognized for leadership and service to the youth of Washington as a teacher, coach, counselor, principal, assistant superintendent, and as executive director of the WIAA during a career that spanned more than 40 years.

As executive director of the WIAA, Gillies and his staff were responsible for overseeing athletics for more than 300,000 students, including 120 state championship competitions. The WIAA is the largest sports organization

in the state and represents more than 700 middle schools and high schools.

The South Bend native served in the Army Air Force during World War II as a cryptographer, coding and decoding secret messages. He earned bachelor's (1951) and master's (1959) degrees in physical education at WSU.

Gillies began his teaching and coaching career at Monroe Junior High in 1959. Later, he was principal of Monroe (1959-63), Snohomish (1963-68) and Mariner (1968-77) high schools, before serving four years as assistant superintendent of the Mukilteo School District, home of Mariner High.

In 1974, he was recognized as one of 20 outstanding principals in the nation, and in 1978 was one of the 60 outstanding secondary school principals in the United States. He has written more than 200 professional articles and is the author of two books.

Gillies and his wife, Sally, live in South Bend and are the parents of three grown children.

—Pat Caraher

From farm to College Hill, the migration continues

Summer Selby Berry ('75 Clothing & Textiles) works in staging and costuming for the Theatre Arts program at Gonzaga University. Before moving to Spokane, she was involved in costuming with the civic theatre in Fargo, North Dakota.

Since 1991 **Lawrence M. Reisinger** ('75 M.S. Env. Engr.) has been an environmental compliance manager at Fort Carson and the Air Force Academy in Colorado. Earlier, he worked at the Tennessee Valley Authority for 15 years. He writes, "Your magazine is a hit with me...interesting articles and good looking."

Richard Duval ('77 Comm.) of Bothell owns and operates PhotoTunes.com—the only online e-card service that offers virtual greeting cards created from original scenic photography and original piano compositions. He honed these skills at WSU via his one and only photography class as a journalism student, and the piano in the lobby of Goldsworthy Hall, where he taught himself to play. Duval is married to **Leslee Porta** ('78 Bus. Adm.). Providing technical support for PhotoTunes.com is former Cougar track star **Larry Minor** ('78 Bus. Adm.).

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.

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 Command," 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 on 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

WHEN DON APPEL LEFT THE FAMILY FARM at Endicott in the 1930s to enroll at Washington State College, he didn't know what he was starting. Or where it would end.

Unfortunately, failing eyesight ultimately forced him to withdraw from school. He returned to farming but continued to stress the importance of education. (In 1979 he was awarded a bachelor's degree in engineering.) All nine of his children now hold Washington State University degrees. They were followed by a second generation of graduates. A third is in the queue.

Dick Appel ('59 Agri. Engr.), Don's oldest, was the first in the family to graduate. David '61, Tony '63, Fred '65, Donna '67, Colleen '68, Steven '74, Laurette '78, and Renata '82 followed. Most of their spouses are WSU degree-holders, plus a host of cousins.

Early in his senior year, Dick met sophomore Helen Absher at a pep rally. They dated and married the day before the newly commissioned Army second lieutenant left for Fort Sill, Oklahoma. That union produced 10 children and a new generation of Cougar graduates.

The most recent, Neil Appel ('02 Agri. Econ.) graduated in May. Four brothers and three sisters preceded him.

Dick and Helen raise wheat, barley, and sheep on 1,700 acres near Dusty, 32 miles west of Pullman. After military service, Dick returned to work with his father. In 1969, he purchased the farm.

"I never pressured the kids to come back to the farm," Dick says. They were free to chart their own course. Several of his sons, like his brothers, are engineers. After completing an introductory course in biosystems engineering, Neil decided he didn't want to sit behind a desk all day. He yearned for the farming life he describes as "a little more laid back." In May, he joined his dad on the farm.

"I always hoped that one son would follow me on the farm," Dick said

recently. His eldest child, Mike, did, but he died in 1987 of a brain aneurysm at 27. Eric, the fourth son, farms leased land four miles away.

"We taught them [the children] to work hard," Dick said, "and pushed them to accept responsibility." Neil was driving truck during harvest at 14.

The second and third generations of Appels have produced a long string of valedictorians and salutatorians at Colfax High School. Their academic achievements have been rewarded by WSU and College of Agriculture and Home Economics scholarships and awards from the American Farm Bureau, *Successful Farming*, 4-H, and FFA, among others.

Dick was the first of many Appels to serve as president of Stimson Hall. For years, he has been a stalwart spokesman for Northwest agriculture and active in 4-H and FFA. Both he and Helen are members of the Washington State 4-H Hall of Fame. In April, he received the Distinguished Service Award from the WSU animal sciences department. The following evening, Neil was named the outstanding senior in the same department. Younger sister Lisa was cited as the outstanding student in her class in apparel, merchandising, and textiles.

Dick and Helen have 18 grandchildren, including Dan Appel, now a WSU senior in communications. Just when one generation graduates, another is waiting in the wings to take flight.

—Pat Caraher

THE APPEL TREE

Mike ('84 Ag. Mech.), deceased

Barb Appel Wollstein
('84 Landscape Arch.), Lacey

Deb Appel Stavig ('85 Home Ec.), Vancouver

Bruce ('87 Mech. Engr.), Boston

Phil ('89 Mat. Sci.), Lewiston, Idaho

Eric ('90 Ag. Mech.), farms near Dusty

Caroline Appel Kunkel
('01 Civ. Engr.), Pullman

Neil ('02 Agri. Econ.), Dusty

Lisa (WSU junior)

Susan (high school sophomore)

Five Appels are married to Cougars.



Neil, left, talks farming with his father, Dick, on a stroll across the pasture near Dusty.

CLASS NOTES *continued*

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

In March, long-time Windermere Real Estate executive **Jeanne Grainger** ('80 Comm.) was named to direct the company's expansion in the Southwest as president of Windermere Services Southwest, Inc. She joined the company in 1988. Grainger is a former assistant sports information director at WSU.

Scott Hulbert ('80 Hort.), professor of plant pathology, received the 2002 Commerce Bank Distinguished Graduate Faculty Member Award at Kansas State University in April. He joined the K-State faculty in 1989 and specializes in bioinformatics and host/parasite genetics and cytogenetics.

Douglas Nancarrow ('80 Ph.D. Speech) was appointed in March as provost and senior vice president at Texas Wesleyan University in Fort Worth after a national search and assumed his

new position August 1. He previously was dean of the College of Liberal Arts, Sciences and Agriculture at Lincoln University, Missouri.

Frank Blecha ('81 Ph.D. Ani. Sci.) is head of the Department of Anatomy and Physiology at Kansas State University's College of Veterinary Medicine in Manhattan. He was appointed University Distinguished Professor at Kansas State University in 2001.

Patrick Martin ('83 Bus. Adm.) has opened his own commercial real estate firm—Martin Partner's Real Estate Inc. in Phoenix. He has been in the commercial real estate business for more than 13 years and holds broker's licenses in Arizona and Washington.

After working in Seattle for 17 years, **Keith Shipman** ('83 Comm.) and his family enjoy living in Bend, Oregon. He is one of the founders and president of Horizon Broadcasting Group. He writes,

"We own or operate 12 radio stations—five in Bend, Ore., five in the Boise area, and two in Twin Falls, and the Boise Hawks (Class A Northwest League baseball team)." He and his wife, **Julie Poppe Shipman** ('83 Elem. Educ.), have three children "all wearing Crimson and Gray in Beaver/Duck country!"

Michael Griffin ('84 Polit. Sci.) has been named chief operating officer of Kappes Miller Risk Management, LLC, Bellevue. He has been awarded the professional designation Chartered Property Casualty Underwriter.

Brian P. Ward ('84 Polit. Sci.), Mercer Island, has been named president of the U.S. Real Estate Division of Stellar International Holdings, with U.S. offices in Seattle. Stellar is best known as the founder of both Princess Cruise Lines and Admiralty Cruise Lines, which merged with Royal Caribbean Cruises in 1988.

WHISPERED PRAYERS

ON THE FLOOR of Beasley Performing Arts Coliseum, Native American children dressed in full regalia run off steam before the grand dance at the Pah-Loots-Pu Powwow this Saturday night in April. One of them is Red Bear McCloud, the five-year-old son of arena director Russell McCloud, seated at the announcer's platform in jeans and a crimson wind jacket. Father looks on at son unhurriedly. The grand dance is scheduled for 6 p.m., an hour away, but McCloud knows it will most likely be later. Always factor in Indian time—about half an hour more than what's advertised.

"I grew up going to powwows," McCloud says. He was about Red Bear's age when he went to his first one; his uncle made his first outfit, and his father taught him to dance. He won competitions at powwows. He met his wife, Thea, at a powwow; they married on April 4, 1996, the Friday before a powwow. His first year at Washington State University, in 1997, he and Thea were head man and head woman at the Pah-Loots-Pu Powwow. And now, at 24, McCloud is running the powwow, as he has for four years. When he's not at powwows, McCloud works as a timber sales officer for the Yakama Nation, which gave him the full-ride scholarship to come to WSU. After he graduated last year with his bachelor's degree in forest management, he returned to the tribe to give back the time he spent on his education.

Dancers, family, and friends greet McCloud constantly. A younger sister, Kay



SHELLEY HANKS

Lynn, wants him to answer a question, comes back minutes later to ask him something else. A friend pursuing her master's at WSU gives him a hug. While she talks to McCloud about her son going into the Army, Kay Lynn returns, unquestionless this time, stands behind McCloud, and plays with his hair, plaited in two long braids going down his back. This connection from all sides is what McCloud loves most about the powwow.

"The whole purpose is to celebrate family,

visit with old friends, meet new ones, and to recruit, to let others know there are Native Americans at WSU," he says. "For the past five years, we've held the largest student-organized event on campus, and we're one of the smallest organizations on campus." In fact, 50 tribes came for the Pah-Loots-Pu from North Dakota, Minnesota, New Mexico, Arizona, Montana, Oregon, Idaho, and even Canada. Dancers begin to converge on the coliseum floor to prepare for the grand dance. As one woman braids the hair of a man seated in front of her, a Native American emcee who sounds like the "Voice of the Cougars" makes a few announcements to spectators about crafts to purchase, photo taking, and a vehicle whose headlights are on in the parking lot. "I don't know what old Indians did without hair dryers," he says, spying the hair preparations.

McCloud gives the high sign for the grand entry to start. A multicolored sea of feathers and flying fringes flows into Beasley as the dancers begin their circular dance to the sound of drums that reverberate through the concrete stands. Gold and silver bells on the women's costumes flash but don't ring. They whisper. I ask a young woman beading with her sleeping baby in a traditional baby carrier what the bells are made of. She says Copenhagen lids. Another woman tells me each bell represents a prayer. Whispered prayers in Copenhagen lids. The sacred in the ordinary.

—Nella Letizia

He is an actively licensed attorney and real estate broker in Washington state.

Chang H. Oh ('85 Ph.D. Chem. Engr.) is a project manager at the Idaho National Engineering and Environmental Laboratory in Idaho Falls. Last November he was named a fellow of the American Society of Mechanical Engineers at the organization's International Congress and Exhibition in New York. His INEEL contributions include original work in the field of nuclear reactor safety.

Sydney Stephenson Clevenger ('86 Broadcasting) is a freelance writer based in Portland, specializing in education, health, medicine, science, and technology.

Scott Maystrovich ('87 Chem. Engr.) opened Scott Chiropractic Center in Spokane last February. He previously worked as a nuclear engineer for the Navy in Bremerton. Deciding to change careers, he went back to school and graduated from Palmer College of Chiropractic in Davenport, Iowa.

Dean Pierose ('88 B.A. Hotel and Rest. Adm.) lives in the Salt Lake City area, where he owns a restaurant. He writes, "During the Winter Olympics, we catered for Sting, The Dixie Chicks, Dave Matthews, Bon Jovi, Christine Aquilera, Desmond Tutu, the Canadian gold medal winning hockey team and friends, Rudolph Giuliani, Robert Redford and others." He adds, "I fly fish, golf and stay single. Life is good."

Robert J. Caldwell ('89 Econ.) joined the Spokane law firm of Witherspoon, Kelley, Davenport and Toole last November. He completed a law degree in 1992 at the University of Idaho College of Law. He specializes in health care and corporate law.

1990s

Laura Leist Bishop ('90 Bus. Adm.), Bothell, was voted one of 40 Entrepreneurs of 2001 by the *Puget Sound Business Journal*. She is president and founder of Eliminate Chaos, Inc. The company provides professional organizing services to corporations, small businesses, and individuals. It is dedicated to providing clients with "more time for life."

Roberta Sangster ('90 M.A. Soc., '93 Ph.D. Soc.) is a research psychologist with the Bureau of Labor Statistics in Washington, D.C. In August she will be presenting an invited paper in Copenhagen on Internet survey design to the International Conference on Improving Survey Quality.

Sandra Franklin Van Valkenburg ('90 For. Lang. & Lit.) of Poulsbo has been married for nearly three years and has returned to the education field. She writes, "I teach at Bremerton High School. My husband and I recently

Each on his own merits



IDENTICAL TRIPLETS Donald, Jack, and Joseph Claros appear to be mirror images—5 feet, 4 inches tall, 125 pounds, whitewall haircuts, small wire rimmed glasses. They are soft-spoken, polite, and typically respond to questions from their elders with a "Yes sir" or "No madam." Sometimes they dress the same—camouflage fatigues or dress green uniforms—as Army ROTC cadets at Washington State University.

Jack (architectural studies) and Donald (communications) received their degrees and Army commissions May 11. Joseph switched from interior design to communications. He will graduate in December.

The military has been a means to an end for the brothers, helping them finance their college education and providing new opportunities and training. The brothers joined the National Guard after graduating from Spokane's Ferris High School. They had the foresight to schedule their basic and advanced training for the summers—before and after their freshman year at WSU—so as not to interfere with school. First they went to Ft. Leonard Wood, Missouri, and then Ft. Bliss, Texas.

In addition, they found jobs at WSU. Joe works 20 to 25 hours a week in the Registrar's Office. Jack splits 20 hours a week between the Rotunda dining hall and as a cook's assistant in the CUB. Donald worked 15 hours a week in the CUB kitchen.

The triplets, now 22, were born December 28, 1979 in El Salvador. Donald was the first arrival, followed at five-minute intervals by Jack and Joseph. Carlos, Jr., 19, and sister Bella, 11, complete the family.

"Our parents always worked hard," Jack said. Their father is a house painter, their mother a nurse's assistant. "They told us, 'You have to sacrifice to go where you want to go.'"

While discipline was stressed, the Claroses also cut the boys some slack. "Our parents encouraged us to do what we wanted to do [for ourselves], not for them," said Donald.

Donald came to WSU because of the reputation of the Edward R. Murrow School of Communication. He plans to attend the Conservatory of Audio Recording and Sciences in Tempe, Arizona, following his military hitch, and become an audio engineer. Someday he wants to have his own

recording label. Jack plans to eventually pursue a master's degree in architecture at Oregon State University. Joseph is considering the advertising field. He has accumulated 31 hours in interior design and is intrigued by space planning and furniture design as other possible options, after the Army.

"This is a country that has given us a lot of opportunity," says Joseph. "This [military service] is the way to give back."

Donald and Jack are waiting for orders to report to the 17-week Officers Basic Course at Ft. Leonard Wood. Both are combat engineers. Donald was ROTC cadet battalion commander at WSU last fall. As winner of the George C. Marshall Award at WSU, he and more than 200 other cadet leaders nationally were invited to Lexington, Virginia, in April to meet President George W. Bush and attend a seminar on national defense, world affairs, and strategic planning.

In all they do as individuals and as brothers, Joseph said, "You want to represent the Claros name. You don't want to be the one that doesn't stand out."

As the first in their family to graduate, college was a "big step" for the triplets. But with more people attending college now than in previous generations, Jack says "It makes the job market today more competitive. It may mean you need to prove yourself more, or sell yourself better when you go looking for a job."

The Claros family moved from El Salvador to Los Angeles when the boys were three, and then, seeking a different environment, moved to Spokane when they were 15. In 1989, when the brothers were 10, the family returned to El Salvador—their only visit.

"It [El Salvador] was a nice place to visit," Joseph says, "but living in the U.S. so long, I don't think we could go back and live there. It's different—a third-world country . . . a big difference."

Norma Hatley, program coordinator in military sciences at WSU, has been a close observer of the Claros brothers since they arrived on campus four years ago.

"Initially, the fact that we had three look-alikes was a novelty. They've had a lot of publicity. It hasn't gone to their heads. They are all individuals. Each one wants to be known on his own merits, not just as 'one of them.'"

—Pat Caraher



ROBERT HUBNER

Palmers want to give others hope for the future

SOMETIME IN THE NEAR FUTURE Perry Palmer and his wife, Marcie, want to return to the Colville Indian Reservation. Young students there lack good role models, as well as incentives, Perry says. They need to be made aware of opportunities for advanced education and benefit from them as the Palmers have.

Perry completed a master's degree in education at Washington State University in May. Marcie will finish her doctorate in counseling psychology next May.

Both are members of the Colville Confederated Tribes. They met on the reservation, where Marcie spent three years as a social worker for Child Protective Services, and were married there in 2000.

Perry accepted an athletic/academic scholarship at Oklahoma City University out of Lake Roosevelt High in Coulee Dam, but played only one year. His priorities were backwards, he says "basketball first, before studies." And he says he had "an attitude." He still remembers the day coach Abe Lemmons pulled him aside in practice. "You can shoot the threes, but I'd rather have you making A's," Lemmons said. He encouraged Palmer to take his blinders off, or someday "reality is going to hit you right in the face."

Palmer got the message, and a social studies degree in 1994. He did his student teaching at two inner city high schools in Oklahoma City, working with "kids who were being left behind," including gang members. He used comic books to teach them how to improve their minimal reading and writing skills. He saw teachers who had lost their fire to teach, and he didn't want to be one of them. So putting his teaching career on hold, he spent the next six-and-a-half years in the military, serving as a combat medic with the U.S. Marine Corps in Bosnia, Albania, and Zaire.

When he returned to the reservation, he met Marcie. She had completed her bachelor's degree in social work at Eastern Washington University and earned her Master of Social Work degree at Walla Walla College. She was pursuing a Ph.D. and encouraged him to go for a master's degree. Perry is graduate support coordinator in the Office of Grant and Research Development. Their daughter and first child, Shawnee Rayann, was born July 11.

—Pat Caraher

CLASS NOTES *continued*

bought a motor sailboat and intend to spend our summer sailing through the San Juans."

Daniel F. Vaughn ('91 Hist.) has joined the law firm of Lane Powell Spears Lubersky LLP in the Seattle office as an associate. His practice concentrates on corporate finance and securities. He received his jurisprudence degree from the University of Virginia School of Law.

Angela Mawer Barrie ('92 Hotel Adm.) has joined Right Management Consultants as vice president of client services. The firm is a leader in the areas of career transition and organizational consulting. Her husband, **Ben Barrie** ('92 Hotel Adm.), is the operations manager for Chaffey Custom Homes, which builds high-end residential homes on Seattle's Eastside. They live on Mercer Island.

Davenport DeMeyer ('92 Soc. Sci.) married Amy M. Sztowicz June 23, 2001. He is the state manager of Maryland for The Wine Group, Inc., a California-based wine company. They live in Centerville, Maryland.

Khristie Lines ('92 Soc.) is the social services director of a geriatric facility in Phoenix, Arizona.

Patrick Hungerford ('93 Arch.) and his wife, **Lori Lawrence Hungerford** ('92 Int. Design), of Bainbridge Island report the birth of a son, **Kellen Patrick**, October 26, 2001.

Kammie L. Lewis ('93 Bus. Adm.), Bothell, a supervising CPA with Hascal, Sjolholm & Co. of Everett, has earned the professional designation of Certified Specialist in Estate Planning. She specializes in trust and estate practice.

Kevin J. Wright ('95 Bus. Adm.) is a product manager at Globus & Cosmos, the world's largest tour operator, based in Denver. He is the author of three Catholic travel guidebooks.

Greg Wendt ('96 M.S. Env. Sci. and Reg. Planning) has been Franklin County senior planner in Pasco since February 1999.

Lester S. Portner ('97, Ed.D.) retired June 30, 2001 as superintendent of schools in the East Valley School District, Spokane. He spent 31 years in education, including 28 years as a school administrator. Now he is the part-time director of educational leadership for Eastern Washington University.

Christian Walters ('97 Crim. Just.) is a police officer in Kennewick. His wife, **Jan Noble Walters** ('99 Elem. Educ.), is a first-grade teacher there.

U.S. Air Force first lieutenant **Scott Alford** ('98 Math.), an A-10 fighter pilot stationed at Osan Air Base, Korea, married his junior high school sweetheart, Stacy, on Valentine's Day, Febru-

ary 14, 2002. This fall they will be off to Spangdahlem Air Base, Germany, for his new assignment.

Sean Stewart ('99 Soc.) is working for the Department of Corrections at the Clallam Bay Corrections Center. He supervises offenders and manages all correctional sports programs within the institution. "It is an interesting, and challenging profession," he writes.

Colin Walters ('99 Mech. Engr.) is a production supervisor with Lamb Weston. His wife, **Carrie Newton Walters** ('01 Pharm.D.), is a pharmacist for Fred Meyer. They live in Kennewick.

2000s

Robert R. Bisbeborn ('01 Bus. Adm.) was commissioned as a Navy ensign upon completion of Officer Candidate School at the Pensacola, Florida Naval Air Station.

Navy ensign **Shane J. McKinnie** ('01 Bus. Adm.) recently received his commission as a naval officer after completing Officer Candidate School in Pensacola, Florida.

Katy Andrew ('02 Hist.) has joined the staff of Rep. Adam Smith (D-Wash.) as scheduler and office manager. She interned for Smith while in college at WSU.

Bernard Lagat ('02 Bus. Adm.), former WSU All-America distance runner from Kenya, won the men's mile at the Los Angeles Invitational for the fourth consecutive time earlier this year. His time of 3 minutes, 56.34 seconds was the meet's fastest since 1985.

IN MEMORIAM

1920s

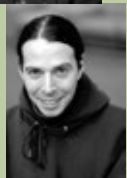
T. Myron "Mike" Davis ('25 Math.), 93, February 21, 2002, Studio City, California. Cougar halfback and member of the 1931 Rose Bowl football team. Employed by Shell Oil in various management capacities. Retired in 1965.

Catherine Amundson Searles ('26 Phys. Ed.), 98, December 26, 2001, Bellevue. Kappa Kappa Gamma sorority.

1930s

Arthur Brunstad ('31 Chem., '33 M.S. Chem.), 94, March 13, 2002, Pullman. Born in Norway, came to U.S. at 12 and settled in Port Orchard. Chemical officer in the 4th Air Force, and later served with the OSS in Burma during WWII. Employed by the U.S. Bureau of Reclamation, General Electric, and, finally, the Atomic Energy Commission in Richland, where he retired as chief of nuclear safety in 1971. Moved to Port Ludlow in 1977, and then to Pullman in 2001. He and his late wife of 65 years, Helen Severance Brunstad, received the Weldon B. Gibson Distinguished Volunteer Award from the WSU Foundation in 1992. Their two sons, **George**

Graduate School alumni honored during centennial



Top to bottom:

Joseph Jwu-Shan Jen, Gary Brinson, Herbert Berg, Edmund Schweitzer III, Michael Yellowbear Holloman, Gary Isom, Gordon Hager, Janice Linehan, Travis McGuire

TO MARK A CENTURY OF GRADUATE EDUCATION at Washington State University, nine alumni, one from each academic college, were honored with the Graduate Alumni Achievement Award at an April 16 recognition luncheon. The award was established in 2000 by the WSU Graduate School. This year's recipients were Joseph Jwu-Shan Jen, Agriculture and Home Economics; Gary Brinson, Business and Economics; Herbert M. Berg, Education; Edmund O. Schweitzer III, Engineering and Architecture; Michael Yellowbear Holloman, Liberal Arts; Gary E. Isom, Pharmacy; Gordon D. Hager, Sciences; Janice M. Linehan, Nursing; and Travis C. McGuire, Veterinary Medicine.

Joseph Jwu-Shan Jen ('64 M.S. Food Science), Washington, D.C., is undersecretary of the U.S. Department of Agriculture. In that capacity, he oversees four agencies—the USDA Research Service, the Cooperative State Research, Education and Extension Service, the Economic Research Service, and the National Agricultural Statistics Service. From 1962 to 2001, he was dean of the College of Agriculture at Cal Poly State University, San Luis Obispo. He was elected a fellow of the Institute of Food Technologists in 1992.

Gary Brinson ('68 M.B.A.), Chicago, is founder and retired chairman of Brinson Partners, Inc. He is co-author of two books—*Global Investing: The Professional's Guide to the World Capital Markets*, and *Investment Markets: Gaining the Performance Advantage*. He was named the outstanding financial executive by the Financial Management Association in 1991. And in 1999, he received the Award for Professional Excellence from the Association of Investment Management Research.

Herbert M. Berg ('81 Ed.D.), Alexandria, Virginia, is executive director of the Association for the Advancement of International Education, which promotes intercultural and international education worldwide. He formerly was superintendent of schools in Alexandria and in Puyallup.

Edmund O. Schweitzer III ('77 Ph.D. Elect. Engr.), Pullman, a former member of the WSU faculty (1979-1982), founded Schweitzer Engineering Laboratories. With more than 630 employees, SEL develops and manufactures digital protective relays which identify, analyze, and respond in milliseconds to abnormal conditions on power lines or in electrical equipment.

Michael Yellowbear Holloman ('93 M.F.A.), Seattle, became director of the Center for Plateau Cultures at the Northwest Museum of Arts and Culture, Spokane, in June. Previously he was associate professor of fine arts at Seattle University for nine years. He is a member of the Colville Confederated Tribes.

Gary E. Isom ('73 Ph.D. Pharmacology/Toxicology), West Lafayette, Indiana, is vice president for research, dean of the Graduate School, and professor of toxicology at Purdue University. The primary focus of his research group in neurotoxicology is on selective vulnerability of the nervous system to neurotoxic chemicals.

Gordon D. Hager ('73 Ph.D. Chemical Physics, now Materials Science) is a physicist and technical advisor at the Directed Energy Directorate's Chemical Laser Branch, Kirtland Air Force Base, New Mexico. He is a leader in scientific innovation in the field of high-power airborne laser systems used by the U.S. military to defend against enemy missiles. Last August he was one of five scientists named Air Force Research Laboratory Fellow, the lab's highest technical achievement honor.

Janice M. Linehan ('99 Master of Nursing), Benton City, Washington, is an acute care nurse practitioner for both Kennewick General Hospital and NW Practice Management, a Kennewick Public Hospital District subsidiary. She also serves as a preceptor for current graduate nurse practitioner students and has published a scholarly article on "Respiratory Syncytial Virus: Understanding the Threat to Communities."

Travis C. McGuire ('68 Ph.D. Vet. Pathology), Pullman, is a professor in the Department of Veterinary Microbiology and Pathology at WSU. One of the top veterinary immunologists in the world, his research program has focused on infectious diseases of animals and host responses. Since joining the WSU faculty in 1968, he has received more than \$24 million in grants.

—Pat Caraher

IN MEMORIAM *continued*

'56 and Hal '66, and two of their five grandchildren, **Kevin Brunstad '94** and **Signe Brunstad '95**, are graduates of the WSU Honors Program. The Brunstads were WSU Benefactors. Contributions may be sent to the WSU Foundation in memory of Art Brunstad, PO Box 641042, Pullman, Washington 99164-1042.

Army major (ret.) **Edna Cox** ('31 Institutional Mgmt.), 92, January 18, 2002, Moss Beach, California. Joined the Army Women's Auxiliary Corps in 1942. Served as a contract officer during WWII. Served in the Occupational Army in Germany after the war. Retired from the Army in 1959. Inducted into the San Mateo County Women's Hall of Fame. Received WSU's Alumni Achievement Award. Kappa Delta sorority.

Evelyn I. Miller ('31 Home Ec.), 94, December 21, 2001, Colfax. Taught in Hay, Washington. Became a homemaker in 1934 when she married Adolph "Jack" Miller.

Josef Hansen ('32 Bus. Adm.), February 17, 2002, Portland, Oregon. Member of the WSU 1931 Rose Bowl football team. One of three former players honored at the 1998 Rose Bowl.

Alice Gutmann Smith ('32 For. Lang. & Lit.), 94, March 3, 2002, St. Michaels, Maryland, Alzheimer's disease. Social worker. Active horsewoman and swimmer. Ran for fitness until her 80s.

Russell Long ('33 Econ.), 90, February 22, 2002, Spokane. Worked at Seattle First National Bank for many years. Retired as assistant auditor in 1972.

Alfred Chase ('34 Elect. Engr.), 90, December 28, 2001, Spokane. Worked for family business, W.E. Chase Engineering. In 1949 purchased the general store in Marshall, Washington. Postmaster there, 1951-75.

Helen Burr Tilford ('34 Bact.), 88, March 13, 2002, Spokane. Medical technologist at St. Luke's Hospital, Spokane. Kappa Alpha Theta sorority.

Arlene Macy ('36 Comparative Lit., '36 French, '66 Master of Lib. Sci.),

89, February 12, 2002, Walla Walla. Teacher and reference librarian. Retired in 1976. Moved from Richland to Walla Walla in 1996.

Shirley Stewart Waugh ('37 Home Ec.), 86, March 25, 2002, Centralia. Taught home economics at Clarkston High School for two years. Worked four years for the home economics staff of the Agriculture Extension Service. During WWII, served three years as a Navy lieutenant after officer training in the Women Accepted for Volunteer Emergency Service. After receiving a master's degree from the University of Wisconsin, spent 15 years working for college libraries.

Gatlin Randall Brandon ('38 Bact.), 86, November 25, 2001, Sacramento. Received master's degrees from University of Oregon Medical School and University of Michigan at Ann Arbor. Director of Oregon's Public Health Sciences Laboratory in Portland for 20 years, retiring in 1976.

U.S. Army colonel (ret.) **Barney Brooks Asbury** ('39 Bus. Adm.), 84, May 15,

2001, Prescott. Served with the U.S. Army in the Pacific during WWII. Received the Bronze Star. Assignments included tour as inspector general and commandment of cadets at the University of Illinois.

Charles Boothe ('39 Gen. St.), 84, February 25, 2002, Spokane. Flew in the South Pacific during WWII. Member of the Naval Reserves for 30 years. Employed in the state Auditor's Office for 30 years. Retired in 1974.

Harald R. Egbert ('39 Zool.), 84, March 4, 2002, Spokane. Worked for the USDA, the Washington State Game Department, and the U.S. Postal Service for 27 years. Retired in 1972.

Ivan Shirk ('39 Mech. Engr.), 87, January 27, 2002, Spokane. Worked at Willamette Hyster in Portland. Taught mechanical engineering at Gonzaga University for 45 years.

1940s

Clark Cordill ('40 Ani. Sci.), 84, Gilbert, Arizona, car accident. Flew 52 missions as a B-26 pilot during WWII.

FROM RUSSIA WITH LOVE

Cougar matryoshka dolls a big hit

SUE SENNER'S ('80 Comm.) travels occasionally take her to places like Chernobyl, Ukraine, and Moscow. She is a project manager for the International Nuclear Safety Program (INSP) at Battelle Pacific Northwest National Laboratory in Richland.

For several years, she has provided communications support to international nuclear safety groups. She also manages a safety project for the Bilibino Nuclear Power Plant in northeastern Russia, currently helping staff there coordinate an emergency preparedness exercise for later this summer.

"We want to assure that appropriate procedures are in place and staff are trained to handle an emergency situation," she said in May. Ultimately, she said, "We're working to make sure that the world doesn't experience another nuclear accident like Chernobyl."

While in Moscow for a series of meetings in April, she visited several street vendors to purchase gifts for family and friends, including colleague Gary R. Petersen, INSP information manager. "He is a diehard Cougar," says Senner.

To her surprise, she spotted some Russian matryoshka dolls that depicted the Miami Dolphins and other U.S. professional sports teams. The Russian vendors asked where she lived in the United States and quickly brought

out their selection of dolls for professional and college teams in Washington.

Senner turned the vendors down flat when offered a University of Washington Huskies matryoshka, but said, "Now if you had some Washington State University dolls..."

The vendor told her to "Wait, wait," and took off running down the street.

A few minutes later, he returned, matryoshka dolls in hand. To Senner's delight, the five dolls in the set depicted 2001 Cougar football players Jason Gesser, Dave Minnich, Mike Bush, Lamont Thompson, and Jason David. Each doll was hand-painted with the player's facial likeness and name. The tallest doll, Gesser, is about eight inches high.

On the spot, she knew she had to buy these dolls for Petersen.

"Many Cougars have stopped at my office to look in awe at this amazing set," says Petersen ('65 Comm.).

Senner, eldest of five siblings to attend WSU, was initially looking for a Miami Dolphins set for her brother, Mark McKenna, a big



WSU alumni Gary Petersen and Sue Senner display Russian dolls depicting members of the Cougar football team.

fan of former quarterback Dan Marino. Another brother, Mike McKenna, works in ticket sales with the Seattle Mariners and part-time as a statistician for the Seattle SuperSonics pro basketball team. Senner found him a set of Gary Payton dolls that depict the Sonics' all-star guard.

"It appears that I will have more orders to fill during my next trip to Russia," Senner says.

And if the Cougar football team wins nine games this fall, including the Apple Cup, Petersen promises to give his set of dolls to Gesser, WSU quarterback.

—Pat Caraher

Served on Gen. Eisenhower's staff and helped plan air strikes for D-Day. After the war, worked with POWs and refugees. Later purchased a farm and was the plant production manager for Daringgold in Spokane.

Richard "Dick" Farman ('40 Phys. Educ.), 85, May 5, 2002, Seattle. Member of the WSU Athletic Hall of Fame, former Cougar football player. Played in 1938 East-West Shrine Game. Played professionally with the Washington Redskins. Named to the All-Pro team and was a member of the Redskins's 1942 NFL championship team. In 1944, he and his brother, Fred, formed the Farman Pickle Co. in Enumclaw, adopting the name "The Pickle People." They sold the company in 1987 to Curtis-Burns Food.

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

Norman Street ('41 Music, '42 Educ.), 84, December 23, 2001, Portland. Music teacher at Benson Polytechnic High School, Madison High School, and in Reynolds School District before retiring in 1974. Private flute instructor and co-founder of Northwest Bandmasters Association. Directed Forest Grove Glee-men, a church choral group.

Lawrence "Tag" Christiansen ('48 Phys. Ed., '51 Educ.), 79, March 25, 2002. WSU football starter. During WWII and Korean War, served as a Marine Corps captain. Coached high school football at Concrete, Mercer Island, and Mariner high schools.

Keith Wooldridge ('48 Agri., '49 Educ.), 81, March 14, 2002, Portland, Oregon. Taught high school in Washington state before moving in 1957 to be a chemistry teacher in the Portland Public Schools, primarily at Madison High School, for more than 20 years.

Howard Carson ('49 Bus. Adm.), 77, September 12, 2001, Hayden, Idaho. Owner of C&S Glass in Coeur d'Alene. Retired in 1985.

Phyllis Jean "P.J." Curtis (x'49 Soc.), 74, January 20, 2002, Westport, cancer. Taught for more than three decades in Raymond, Aberdeen, and Port Townsend. Withdrew from WSC to join U.S. Marine Corps Reserves for financial reasons. Served on active duty in WWII as an accountant. Played professional baseball in the late 1940s in the Seattle area.

Gale McManus ('49 Music), 79, February 18, 2002, Kirkland. Taught music at East Wenatchee Junior High School for two years. Directed the Apollo Club, a men's choral group. Professional fund-

An expert on human evolution, a long-distance driver

GROVER S. KRANTZ, world-renowned anthropologist and longtime Washington State University professor, died February 14, 2002 in Port Angeles, Washington after an eight-month battle with pancreatic cancer. Professor Krantz, or Grover, as everyone knew him, was born November 5, 1931, in Salt Lake City. He obtained a B.A. and M.A. in anthropology from the University of California at Berkeley.

After receiving his doctorate from the University of Minnesota in 1968, Grover came to the Department of Anthropology at WSU. When he came to Pullman, Grover planned to spend a "couple of years at WSU." Those couple of years turned into 30, until he retired in 1998.

Grover loved to teach and work with students. All of his courses were very popular, and his excellence in teaching was well known. Although very kind and soft-spoken, he was a physically imposing figure. He was 6 feet 3 inches tall and wore a full, untrimmed beard. He was a man of routine who had a plan for each day of the week and seldom varied from it. Grover was an easily recognizable figure on campus; he always wore a Swedish fishing cap, a four-pocket Safari jacket, and a two-pocket long-sleeved dress shirt.

Grover was a physical anthropologist specializing in hominoid (apes, including humans) evolution, human races, and the evolution of culture. However, he was trained in all of the subfields of anthropology and published articles in each. He was a prolific writer and published 10 books and over 60 refereed articles. In 1980, he published the first editions of his evolution and race books, *The Process of Evolution* and *Climatic Races*. His race book was one of the few to combine two aspects of the biology of race: climatic adaptations and genetic variation. He later published *The Geographical Development of European Language*, in which he describes how and by whom Europe was settled and the origins of present-day Indo-European languages.

Some of his most noted contributions to the field include how persistent hunting led to the



ROBERT HUBNER

increase in brain size we see in *Homo erectus* and how the development of phonemic speech led to most of the changes we see in the skull of *Homo erectus* to anatomically modern *Homo sapiens*. On a smaller scale, he was the first to explain the function of the large and long mastoid process found only in anatomically modern *Homo sapiens*. He even published an article, "Noo Spell," that outlined how the English language should be spelled phonetically.

Despite widespread criticism and damage to his professional reputation, Grover stood by the scientific evidence he gathered and the methods he used to support the existence of Sasquatch (Bigfoot). He even traveled to Russia and China to investigate similar stories of a very large bipedal ape.

Grover had many interests outside of anthropology, but he always had a way of bringing his academic training and logic to a vast array of subjects, from a unified field theory in physics to how World War II should have been fought. Grover was a truly kind and sometimes too honest man who loved big dogs, especially Irish wolfhounds. He wrote a novel called *Only a Dog*, which is the story of his life with his first of three Irish wolfhounds, Clyde. He married Diane Horton on November 5, 1982.

Grover loved driving long distances with only his dog as his companion. He was the only person I know who really loved the national 55 mph speed limit. The 55 mph limit allowed him to think about subjects without distractions. He was proud that he had driven to all 48 continental states.

Grover is survived by his brother, Victor Krantz, wife, Diane Horton, a stepson, Dural Horton, and by thousands of students and many others whose lives he enriched. His service to science extends beyond his death. Grover's skeleton and some of the casts of fossils he created will be sent to the Smithsonian Institution for research.

—Donald E. Tyler

Donald Tyler is chair of the Department of Sociology/Anthropology/Justice Studies at the University of Idaho.

Donations in memory of Grover Krantz can be made to the student scholarship fund in the Department of Anthropology at WSU, c/o WSU Foundation, PO Box 641042, Pullman, Washington 99164-1042.

IN MEMORIAM *continued*

raiser for many years. Later was a personnel supervisor for Boeing. Lambda Chi Alpha fraternity.

1950s

Irl Baldwin ('50 Physics), 81, February 19, 2002. Studied chemical engineering at WSC, 1938-40. Joined the Army Air Corps during WWII. Received the Distinguished Flying Cross and four Air Medals. First B-17 pilot to finish 25 missions in the European Theater. His plane was the famed "Hell's Angels," for which the 303rd Bombardment Group was also named. Returned to WSC in 1948. Graduated with honors. Physicist for the Air Force, retiring in 1978 as a lieutenant colonel. Second career was in the Civil Service. Retired in 1983.

Clement Heath ('52 Bus. Adm.), 74, May 20, 2002, Eatonville. Served in the Army Signal Corps in Alaska during WWII. In 1954 purchased a printing shop, Schick Printing, in Seattle's Pioneer Square with his brother, Howard. Moved the company to Capitol Hill in 1960. He and his brother founded four printing companies in four decades in the Puget Sound area.

Calvin Hempel ('50 Fine Arts), 77, December 12, 2001, McMinnville, Oregon. Served in the U.S. Marine Corps during WWII. Received the Purple Heart. Taught arts at Hermiston High School, and in Rainier, Washington. Retired in 1977.

John Lawson ('50 Agri.), 73, December 27, 2001, Kent, heart attack. Graduate of the University of Washington Law School. Worked briefly in private practice before becoming Redmond's city attorney. Appointed to the King County Northeast District Court in 1979. Won the seat in subsequent elections, serving for 11 years before moving to pro-tem assignments.

William Johnson, Jr. ('51 Pharm., '53 M.S. Pharm., '58 Ph.D. Pharm.), 79, September 14, 2001, Coupeville. Taught at WSU while earning a doctorate and later at the University of Wyoming. Moved to Pullman in 1964 as a professor in WSU's College of Pharmacy. Moved to Coupeville in 1988.

Richard King ('51 Bus. Adm.), 73, November 29, 2001, Spokane. CEO of URM Stores for 38 years, retiring in 1989. Served on the WSU School of Business board of directors.

Ronald Leslie Chard, Jr. ('52 Phys. Ed.), 71, May 14, 2002, Kirkland, cancer. Member of WSU boxing team, and Sigma Nu fraternity. Earned physical therapy degree at Duke. Graduate of the University of Washington School of Medicine. Clinical director of Hematology and Oncology at Children's Hospital in Seattle, 1969-92. Principal investigator with the Children's Cancer Group, a national research organization. Author of 40 publications on childhood cancer and treatment. Trained 80 pediatric hematologists/oncologists.

G. William Staggs ('52 D.V.M.), March 26, 2001, Albuquerque.

Winston Robert Saimons ('54 Civil Engr.), 69, October 10, 2001, Yreka, California, heart attack. Served in the Air Force in England. Later worked for Morrison Knudsen and then Kaiser Engineers, designing and building dams. Acacia fraternity.

Fletcher Newby ('57 M.S. Wildlife Bio.), 75, March 2, 2002. Headed the Environmental Quality Council in Helena, Montana, in 1974. Returned to the Montana Department of Fish, Wildlife and Parks in 1974 as deputy director. Retired in 1981. Helped establish a wildlife habitat area next to Sapphire Retirement Center in Hamilton. His

writings about wildlife became the book, *Wildlife Notes from Beaver Lake*.

Tom Hougén ('57 Speech Comm.), March 3, 2002, Portland, Oregon. Worked in the Advertising and Sales Promotion Department of the General Electric Co. Later spent 30 years at Gerber Advertising in Portland, retiring in 1995 as president and CEO.

1960s

Clyde Basthol ('60 Forestry), February 9, 2002, Springfield, Oregon, cancer. Worked for the U.S. Forest Service. Retired in 1982.

Robert Harris ('63 Bus. Adm.), 67, September 26, 2001, Cherry Valley, California, cancer. Served in the Air Force for 24 years until 1978. Computer operations manager at Loma Linda University Medical Center. Retired in 1994.

Clyde Berg ('66 Ph.D. Plant Genetics), 65, May 15, 2002, State College, Pennsylvania. WSU assistant professor in 1965. Employed by the USDA at the U.S. Regional Pasture Research Laboratory, University Park, Pennsylvania, as a research geneticist and later as a research agronomist in forage grass breeding, 1966-95. Published more than 50 refereed papers. Served as an adjunct professor of agronomy at Penn State University.

Jon Gustafson ('67 Fine Arts, '72 Teaching Cert.), 55, April 13, 2002, Lewiston, Idaho. Worked several years as an illustrator at WSU. Active in the field of science fiction from the 1970s on. One of the founders of MosCon, the annual science fiction convention in Moscow, Idaho.

Nancy Falk ('68 Engl.), 66, April 1, 2002, Auburn. For many years, taught English and language arts in the Evergreen School District, near Vancouver. Published several articles in the *Morgan Horse Magazine*.

Lonney Hart Posey ('68 Ani. Sci.), 60, March 11, 2002, Boise, Idaho, multiple sclerosis. WSU President's Academic Achievement Award winner. Worked 25 years with the USDA Farmer's Home Administration as Kittitas County supervisor and community program specialist.

1970s

Donald Tarver ('70 Ph.D. Phil.), 71, January 5, 2002, Baton Rouge. Served in the Korean War with the 82nd Airborne Division. Later became a high school teacher, principal, and superintendent. Assistant to the chancellor of Louisiana State University's Baton Rouge campus and chancellor of the LSU Agriculture Center.

Gerald Rippey ('72 Arch.), 55, January 30, 2002, Sunnyside. Served as a U.S. Army officer on active duty 1972-78, and then in the Army Reserves until

1996, retiring as a lieutenant colonel. Project engineer at Hanford for various contractors for 23 years.

Dennis Kraft ('72 Bus. Adm.), 51, May 28, 2002, Spokane. Vice president of Sun Runner Boat Manufacturing Co. for several years. Owned and operated G.T. Graphics, 1983-99. Retired for two years, then purchased Advanced Telephone and Data Inc.

James Moe ('73 Hort.), 51, January 17, 2002, Colville. Worked for the Washington State Department of Transportation for five years. Owned and operated James L. Moe Insurance agency for 15 years and was president of the United Security Insurance Agency for 10 years.

Kearney Jo Rietmann ('73 Home Ec.), 51, February 4, 2002, Half Moon Bay, California, malignant brain tumor. Served in Peace Corps in Morocco and Algeria, teaching English as a second language. Original editor of *Mac World*, a magazine published by Apple Computer Co.

Mary Elliot ('74 Fine Arts), 49, February 20, 2002, Battle Ground, cancer. Battle Ground School District instructional assistant for 13 years.

David Stiers ('74 Ph.D. Plant Path.), 59, March 12, 2002, Bethany, Oklahoma. Worked in medical research at the Oklahoma Health Sciences Center, Department of Surgery Research.

Leslie Bennett Butterfield ('76 Hist.), 47, November 21, 2001, Edmonds, cancer. Branch manager, operations director, and human relations vice president for Doug Fox Travel for 23 years. Kappa Kappa Gamma sorority.

1980s

Linda Maria Joos ('80 Gen. St.), 44, April 27, 2002, Longview, cancer. President of Coman Hall at WSU. Worked in Seattle for Clinical Research and Biostatistics and for the Fred Hutchinson Cancer Research Center on the Hanford study. Lived in Federal Way.

Richard Shultz ('82 Psych.), 52, November 29, 2001, Great Falls, Montana. After serving in the Army during WWII, returned to Great Falls to work for General Mills. Worked as an alcohol and drug counselor for the Spokane County Health District and became the executive director of Alcohol/Drug Network and Methadone program for Spokane County.

Tammy Wulff ('87 Psych., '90 M.S. Psych.), 39, March 13, 2002, Cheney, cancer. Aerobics instructor. Wife of former Cougar football player **Paul Wulff**, head football coach at Eastern Washington University.

Written a good book lately?
We'd love to hear from you!

SEND NEWS OF YOUR ACCOMPLISHMENTS via e-mail to caraher@wsu.edu; by fax to 509-335-8736; or by snail mail to:

Washington State Magazine
Washington State University
Pullman, Washington 99164-1227.

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.

Faculty & Staff

Mildred Brislawn, 96, February 17, 2002, Mercer Island. Moved to Spokane in 1941 from Lewistown, Montana, and then to Pullman in 1944. Worked as WSU staff until 1966. Moved to Allyn and then Lacey.

Harold Abbott, 95, February 22, 2002, Sandpoint, Idaho. Moved to Spokane in the mid-1930s and helped design Comstock Park. Became the assistant park superintendent in 1938 and then superintendent, 1942-59. WSU professor of landscape architecture, 1959-71. Instrumental in getting the department accredited by the American Society of Landscape Architects.

Randall Spicer, 87, March 4, 2002, Pullman. Associate director of bands at the University of Colorado and supervisor of public school band music in Boulder, 1942-53. WSU director of bands and music faculty member, 1953-77. In 1986, a floor in Rogers Residence Hall at WSU was dedicated as the "Spicer Music House."

Harry E. McAllister ('43 M.A. Econ.), 85, March 28, 2002, Sun City, Arizona. WSU professor of business and economics. Two-term president of the Washington Chapter of the American Association of University Professors. Authored textbook in statistics and co-authored a book of readings in economics. Retired from WSU faculty in 1982.

Claud Lomax, Jr., 83, March 9, 2002, Moscow, Idaho, cancer. Served during WWII and Korean War in the U.S. Navy as a naval architect, attaining the rank of Captain. Worked numerous jobs including the Bureau of Reclamation, Stanford University, City of San Francisco, University of Idaho, and Washington State University. WSU professor of civil engineering, hydraulics. Retired in 1982.

Gertrude Cossalman, 80, March 21, 2002. Administrative assistant in the College of Education, 1958-76.

Merle I. Sargent, 74, February 28, 2002, Moscow, Idaho, cancer. Rural sociologist at the University of Idaho, WSU, and the University of New England in Armidale, Australia. Wrote numerous publications on rural demographics and rural health delivery systems.

Herbert Howard, December 16, 2001, Vancouver. WSU photographer in the College of Engineering, 1965-82.

Myrtle Rach, March 9, 2002. Assistant to the director of the WSU Office of Admissions.

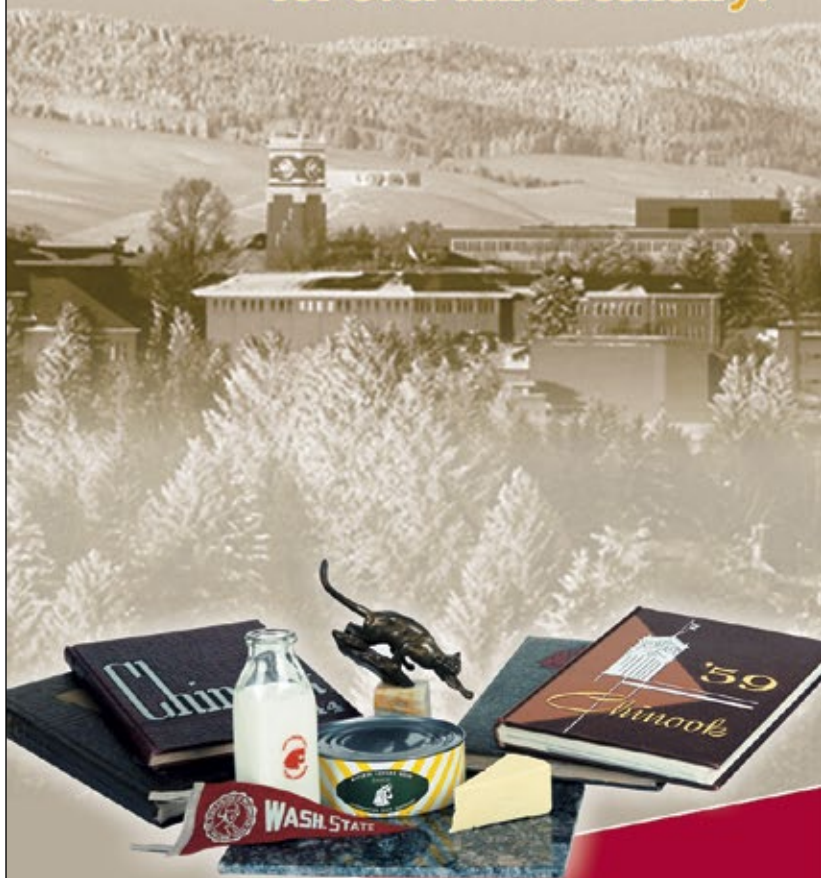


Primary Election: September 17, 2002
General Election: November 5, 2002

Washington
Secretary of State

Cougar Cheese...

a proud WSU tradition
for over half a century!



Let us deliver **World Famous Cougar Cheese**
to your family and friends' doorstep for the holidays.

It's easy and fast to order directly from WSU's Creamery.

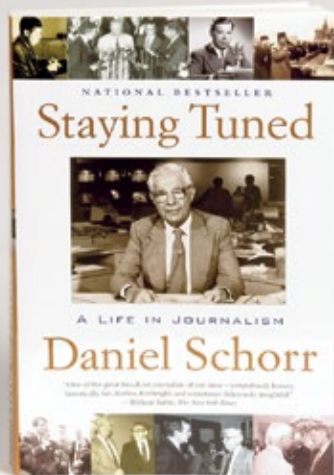
Just call us or go online.

800-457-5442 • www.wsu.edu/creamery

WASHINGTON STATE
 UNIVERSITY

World Class. Face to Face.

BOOKS, etc.



Staying Tuned: A Life in Journalism

By Daniel Schorr
Pocket Books

In the beginning, radio was his second choice. After a journalistic teething in the service of the ANETA news agency in the Netherlands, Daniel Schorr wanted to be a foreign correspondent for *The New York Times*. When he fell victim to the Jewish-owned paper's self-imposed quota on Jewish reporters, Schorr went to work for Edward R. Murrow at CBS in 1953.

The signal that he had made the grade came on New Year's Day 1956, as "Murrow's Boys" made the transfer to television. Schorr had left his post in Russia to join Howard K. Smith, Richard C. Hottelet, Eric Sevareid, and Murrow's other far-flung correspondents at a televised roundtable discussion titled, "Years of Crisis."

When the hour-long, commercial-free program had concluded, Murrow strode around the table, stopping before its newest addition.

"Schorr," Murrow said, "you'll do!"

A latecomer to the Murrow team, which had distinguished itself during World War II, Schorr outlived it and built a career that spanned other generations of broadcast journalists and continues to this day, at National Public Radio (NPR). He tells the story of that career in *Staying Tuned: A Life in Journalism*.

The book follows the octogenarian Schorr through his divorce with CBS—over his 1975 release to another news organization of a House report on U.S. intelligence activities—and his brief stay at the fledgling Cable News Network, to his post at NPR. In it, Schorr recalls decades-old anecdotes with convincing clarity and comments on a trade and an industry that in many respects have lost their way.

"Television has also created a new breed of journalist, more knowledgeable of the medium than of the world," Schorr writes. "This journal-

ist may be more adept at the ad-lib than searching analysis, more expert in camera angles than English grammar."

And how would Murrow function within broadcast journalism today? Schorr thinks he knows: The pioneer of television news would be back on radio, also at NPR.

—Jim Fisher '69, Editorial Page Editor,
Lewiston Morning Tribune

Daniel Schorr was the featured speaker at Washington State University's Murrow Symposium April 10 and recipient of the 2002 Edward R. Murrow Award for Lifetime Achievement in Broadcasting.

East West Encounter

Susan Chan, Piano

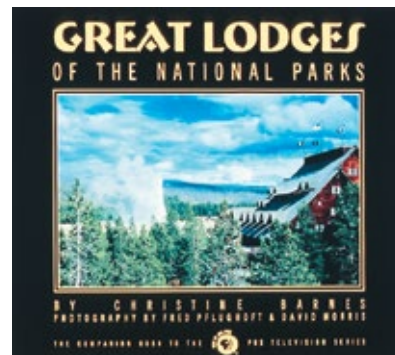
From the first quietly unsettling notes of Susan Chan's *East West Encounter*, it's clear that this is no ordinary piano CD. A delicate initial passage suddenly explodes into a dramatic and resonant section of lower keys; two contemporary pieces rooted in Chinese literature are an intriguing lead-in to Beethoven's Sonata in E minor, op. 90 and Liszt's Mephisto Waltz No. 1. That the structure and sound of music can operate as a sort of narrative language is quite evident here. These are selections that evoke the implacability of landscape, the sweet sharp pain of spiritual longing, and the heady delirium of early love.

Chan performed all the pieces on *East West Encounter* for her New York debut recital at Carnegie Hall in November 2000, which garnered her some glowing prose from *The New York Concert Review*. In addition to her work as associate professor of music at Washington State University, Chan also regularly performs as soloist and chamber musician throughout the U.S., Canada, Asia, Australia, and Europe. She holds degrees from Indiana University and the University of Hong Kong and has done postgraduate work at Yale University and the Trinity College of Music in London.

Both her considerable scholarship and her intuitive feel for the music are displayed on *East West Encounter*. She plays with a delicious restraint throughout but perhaps most so in the second track, "Warrior," from *Scenes from a Jade Terrace*, by the 20th-century composer Alexina Louie. Chan maintains a thundering, ominous presence with the lower register while keeping the high keys both light and taut, achieving a beautiful, tensile balance. And in the "West" selections, the Liszt, the Beethoven, the Franck and the Chopin, she brings a disciplined lightness and sensitivity to these familiar forms. In Chan's capable hands, East truly meets West; the result is nothing short of sublime.

For more information, see Susan Chan's home page at www.wsu.edu/~chans/

—Sheri Boggs, Arts and Culture Editor,
The Pacific Northwest Inlander



Great Lodges of the National Parks

By Christine Barnes
W.W. West, Inc., Bend, Oregon

Teddy Roosevelt once claimed the best idea America ever had was its national parks. After flipping the cover open on *Great Lodges of the National Parks*, by Christine Barnes, readers should have an easy time understanding why he said that.

The book is an eye-grabber, thanks in part to the work of Washington State University alumna Linda McCray ('81 B.A. Fine Arts), who designed and illustrated it, and to the photographs of Fred Pflughoft and another WSU alum, David Morris ('93 B.A. Pol. Sci.). McCray makes room in her design for double-page photo spreads that showcase the natural beauty of 11 Western national parks and the 16 grand lodges located in them. The scenery captured in these photos makes it easy to ignore the stories behind them and just plan a vacation.

But the book, a companion to the PBS television series, *Great Lodges of the West*, also gives an illustrated history of the parks, as well as the conception, building, and architecture of each lodge inside and out—from Old Faithful Inn at Yellowstone to Paradise Inn at Mount Rainier National Park.

Barnes describes how businessmen, railroad crews, masons, carpenters, and landscape designers all worked together to create these national treasures in isolated locations and under the hardship of the elements.

Personal accounts of the architects, historians, park rangers, and former employees who helped build and maintain the lodges and parks give insight as to why these buildings are so revered and why so many people work to preserve them.

"They are magnificent," said Suzanne Lewis, a Glacier National Park superintendent who was interviewed in the book. "Today we would not build lodges like that especially in those locations. That makes them even more important as historic experiences and structures."

For more information see www.greatlodges.com/base_pages/glnp.htm

—Emmy Sunleaf

Harvest Wobblies

By Greg Hall

Elegant Arches, Soaring Spans

By Robert W. Hadlow

River of Life, Channel of Death

By Keith C. Petersen

Oregon State University Press, Corvallis, Oregon

Oregon State University Press has recently published three books by alumni of Washington State University's Department of History.

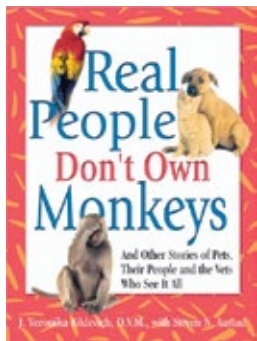
Greg Hall's ('94 M.A., '99 Ph.D.) *Harvest Wobblies: The Industrial Workers of the World and Agricultural Laborers in the American West, 1905-1930* examines the role of migratory farm workers in the newly industrializing agriculture of the early 20th century and explains the social and cultural history of their efforts to organize into an industrial union.

Robert Hadlow ('87 M.A., '93 Ph.D.) documents the professional life of the architect whose remarkable bridges grace the Oregon coast in *Elegant Arches, Soaring Spans: C.B. McCullough, Oregon's Master Bridge Builder*. McCullough designed and built nearly 600 bridges in Oregon during the 1920s and '30s, and Hadlow explains the significance of his legacy.

OSU Press has also reissued *River of Life, Channel of Death: Fish and Dams on the Lower Snake*, by Keith Petersen '73. The four lower Snake River dams stand at the center of a continuing national debate over the fate of salmon in the Pacific Northwest, and Petersen's book remains the most important scholarly study of the history of those dams. Originally published by Confluence Press, this edition includes a new preface by Petersen.

For more information, see <http://osu.orst.edu/dept/press>

Real People Don't Own Monkeys



By J. Veronika Kiklevich with Steven Austad
Sourcebooks,
Naperville, Illinois

Ever thought of using an iguana to catch a date? How about using your dog as a private detective or a parrot as a guard dog?

As a veterinarian with about 20 years of experience, Dr. Veronika Kiklevich has seen all that and more. Dr. K., as she insists people call her, is a clinical instructor at Washington State University's Veterinary Teaching Hospital, where she practices clinical medicine and teaches.

Having observed over the years that pet owners can be as strange as their animals, herself admittedly included, she has recorded some of

her most memorable experiences in her first book, *Real People Don't Own Monkeys*.

"The book is not scientific—just fun," Dr. K. said. "I mostly wrote it just to make people laugh, . . . and as weird as some of this stuff is, it's all true."

Besides humor, there are also tales of danger, heartache, and bizarre occurrences that veterinary school simply does not prepare an animal doctor for, including how Dr. K. and her husband, Steven Austad, learned how to clean their giant python's cage.

Readers can also learn from the practical advice woven throughout many of the stories, such as don't feed your dog French fries or chocolate, how to tell if your turtle is dead, and for heaven's sake, don't keep your parrot in the bedroom.

Dr. K.'s experiences in the book include tales that happened not only at WSU, but around the world. From suicidal cat owners in New York, to raining iguanas in the savannahs of South America, to setting up an emergency spay-neuter clinic on the island of Kosrae while on vacation, Dr. K. brings the reader into her extraordinary life.

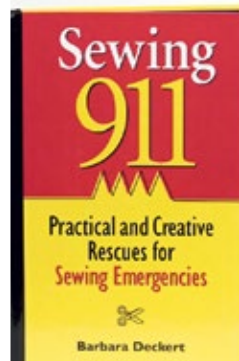
For more information, see www.sourcebooks.com/authors/questions/Veronika_Kiklevich.html

—Emmy Sunleaf

Sewing 911: Practical and Creative Rescues for Sewing Emergencies

By Barbara Deckert
The Taunton Press,
Newtown,
Connecticut

Practical is the operative word for this attractive sewing manual by Washington State University alumna Barbara Deckert ('75 English)—from the spiral binding that



enables the book to lie flat when open, to the abundance of color photographs illustrating both details and finished garments, to the text's clarity of organization throughout. In five chapters, *Sewing 911* provides solutions to accidental fabric injuries, shortages of fabrics, buttons, and thread, defective design details, fitting flaws, and surface problems such as ironing accidents, spots and show-through, and "finicky fibers and weary weaves." Four appendices deal with sewing machine problems, emergency supplies, stain removal, and burn testing for fiber content.

For more information and a four-page excerpt, see <http://www.taunton.com/threads/pages/bt0007.asp>

GRAND CENTRAL WINE MERCHANTS IN PIONEER SQUARE



Fine Wine & Outstanding Customer Service Since 1984

"Favorite wine or new discovery, let us find it for you."

Discounts (mention this ad)
10% off six bottles 15% off a case or more-mixed or full

121 First Avenue South • Pioneer Square, Seattle

(206) 340-5999



M.L. ALBRIGHT & SONS, INC.
EXCAVATING & GENERAL CONTRACTOR
Industrial • Commercial • Residential

WA CONTR
LIC# MLALBS1 054L9
Licensed in WA & ID

Serving the area for over 50 years

(208) 743-2100 Phone
(208) 743-2166 Fax

P.O. BOX 603
Lewiston, Idaho 83501



BRIAN'S
Body Shop



2530 South Grand
Pullman, WA 99163

509/334-5822
Fax 509/334-9744

**NORTHWEST
BEDDING**

Spokane, WA

"We Are The Factory"

Proud to supply
Washington State University

N. Division Showroom
1-800-786-9233

E. Sprague Showroom
1-800-835-7686

Commercial Sales
1-800-456-7686

Strom
Electric, Inc.



Electrical Motor & Control Sales • Rewinding & Repair
Electrical Contracting • Sta Rite Water Systems

405 S. Main • P.O. Box 370 • Troy, Idaho 83871
(208) 835-2331 • Fax (208) 835-2332



WESTERN STATES CONSTRUCTION

General Contractors

P.O. Box 6305
Spokane, WA 99217-0906
WESTESCO 44PM

Dennis Trainor
(509) 489-3107
Fax (509) 489-3122



**General Contractor
Construction Management
Special Services
Design-Build**



License: LYDIGC*264JC

**11001 E. Montgomery Drive
Spokane, WA 99206
Phone: (509) 534-0451
Fax: (509) 535-6622
www.lydig.com**

SIEMENS

Building Automation

**Helping your building
work for you.™**

- Building Automation
- HVAC Products
- Fire Safety
- Security Systems
- Systems Integration
- Critical Environments

- Energy Services & Solutions
- Mechanical Systems Services
- Indoor Air Quality
- Performance-based Solutions
- Facility Management Services

Siemens Building Technologies, Inc.
12406 E. Desmet, Suite A
Spokane, WA 99216
Tel. (509) 891-9070
Fax (509) 891-8017

Siemens Building Technologies, Inc.
1282 Alturas Drive, Suite B
Moscow, ID 83843
Tel. (208) 883-8330
Fax (208) 883-8010

www.sbt.siemens.com

Black & Vail's Office Products

1625 G Street • Lewiston, ID 83501
208-743-9461 FAX 208-746-5619
1-800-829-2373
www.bvop.com

BVOP – Your ONE Stop Office Shop!!



COMMERCIAL AND INDUSTRIAL FABRICATION • INSTALLATION

740 North Knott Street
Portland, OR 97227-2099

Telephone (503) 288-9393
Fax (503) 288-3327

WA State Contractor Reg. No. SPOKAA115308

Spokane Acoustics

2617 N. Dartmouth
Spokane, WA 99206

Bill Gotfredson

(509) 927-8150
FAX (509) 927-8122



LEWISTON, IDAHO 83501
(208) 743-8432

GENERAL ELECTRIC
MAGIC CHEF
MITSUBISHI
HITACHI
JENN-AIR
INFINITY
MAYTAG
ALPINE
DENON
SONY
RCA

FIELD OF DREAMS

WSU INDOOR PRACTICE FACILITY, 2004

(888) 430-5551
WWW.DCI-ENGINEERS.COM

DCI-ENGINEERS
D'AMATO CONVERSANO INC.
ENGINEERING YOUR SUCCESS

Samuel H. Smith
Center for Undergraduate Education

Yost Grube Hall
Architecture

1211 SW 5th Ave.
Suite 2700
Portland, Oregon
97204-3782 USA
Tel: 503.221.0150
info@ygh.com
www.ygh.com

Student Recreation Center



WESTERN ASSET
Pasadena • London • Singapore



Managing WSU assets since 1999.
Go Cougars!!!



Suntoya Corporation

Manufacturers Representative
3820 E. Boone • P.O. Box 2724
Spokane, WA 99220-2724
(509) 534-1516
Fax (509) 535-6546

www.suntoya.com

Professional Video & Tape, Inc.



917-137th Street SW #A-8
Everett, Washington 98204

800-891-5119

**FULL LINE PANASONIC DEALER
FEATURING DVC PRO & POSTBOX**



Your Full Service Printer!

12013 NE 99th Street #1650
Vancouver, WA 98682
Phone (360) 896-3716
Fax (360) 896-5916

Free Pick Up & Delivery

PETERSON SULLIVAN P.L.L.C.

601 UNION STREET, SUITE 2300 SEATTLE WA 98101
CERTIFIED PUBLIC ACCOUNTANTS

PROFESSIONAL SERVICES

- ACCOUNTING/AUDITING & CONSULTING SERVICES
- TAKING GROWING COMPANIES PUBLIC
- AGGRESSIVE TAX PLANNING
- REPRESENTATION BEFORE IRS IN TAX AUDITS

(206) 382-7777
www.pscpa.com

Ferdinand's

ICE CREAM SHOPPE

Located on the WSU Pullman campus
two blocks east of the tennis courts.

Phone: 509-335-2141

Treat yourself...

...to ice cream and Cougar cheese.

While there, visit the observation room
to see how they're made.

Open weekdays, 9:30 a.m.-4:30 p.m.

Or visit the creamery online at www.wsu.edu/creamery

To order cheese, phone **1-800-457-5442**

**"...the gold standard
in shakes."**

—Spokesman-Review
June 2001



Join Our Talented Team!

If you would like to have a fulfilling job with an industry-leading company
located in a relaxed community, then you belong in this picture.

Learn more about SEL on our website: www.selinc.com.

**REWARDING CAREERS. GREAT COMPANY.
FRIENDLY COMMUNITY.**



***SEL provides complete solutions for the control, protection, and
automation of electric power systems worldwide.***



SCHWEITZER ENGINEERING LABORATORIES, INC.

Making electric power safer, more reliable, and more economical.

Pullman, WA USA • 509-332-1890

Love Story

THIS IS NOT A BIOGRAPHY...

This is not a biography.
It is not an obituary. It
is a love story.

That is how Arthur “Art” Brunstad (’31 B.S., ’33 M.S. Chemistry) summarized a tribute to his late wife, Helen Katherine Severance Brunstad, in 1997—and it is a fitting description of how he felt about Washington State University as well. Art passed away March 13, 2002, after more than 70 years of showering WSU with his affection in many ways. “Art believed his education at Washington State was the most important factor that enabled him to succeed in life despite his immigrant back-

ground and the Depression. For Helen, WSU was her life, both as an adult and as a child growing up in Pullman with a father on the faculty,” recalled their son, Harold.

Art and Helen met and married while attending Washington State. Helen was the daughter of distinguished agriculture professor George Severance. Their sons, George (’56 B.S., ’57 M.S. Animal Sciences) and Harold (’66 B.S. Zoology), as well as two grandchildren, are also graduates.



Helen and Arthur Brunstad received the WSU Foundation's Weldon B. Gibson Distinguished Volunteer Award in fall 1992.

A native of Norway, Art loved outdoor pursuits—boating, fishing, and hunting—and was equally passionate about Cougar athletics. Helen was Pullman’s finest tomboy and best tennis player. Their sons and their grandson put those genes to work earning varsity letters at WSU. Art and Helen were Benefactors of WSU, supporting numerous areas and establishing scholarships in chemistry, sociology, and athletics. They included a generous bequest to WSU in their estate plan and gave their time and service as well. In 1992, they were presented with the WSU Foundation’s highest honor, the Weldon B. Gibson Distinguished Volunteer Award.

“Regardless of their beloved Cougars’ win-loss record, their support and love for the University remained the same,” notes Harold. “They always felt that the return they received from the WSU family was far greater than any gift or donation that they gave.”

Art’s passions were obvious, and the generous spirit he shared with Helen carries on in their legacy at WSU—a legacy sustained by tradition and love.

We miss you, Art and Helen.

a THOUSAND WORDS

Photographs by
Robert Hubner and Shelly Hanks



THE CAMPUS DANCES

Message

FROM THE WSU FOUNDATION PRESIDENT

By Richard L. Frisch

It's a great time to be at Washington State University. Under President Rawlins's leadership, faculty, staff, and students have created a strategic plan that truly demonstrates our motto, "World Class. Face to Face." The vision encompassed in the strategic plan reflects the dynamism, enthusiasm, and passion for excellence that is bubbling from everyone involved in its progress. I'm excited to be part of a team that is so dedicated to fulfilling the WSU mission of providing the best undergraduate education at a research university. A key part of this team is the faculty and staff, whose research is essential to the reputation of the University and whose dedication to teaching has such a positive impact on the student experience at Washington State.

Success in implementing the strategic plan depends on leadership, commitment, and vision—Washington State has all of these. The University will also need a successful partnership with the state to secure a sufficient level of funding for higher education. And to be truly excellent, WSU needs private support.

WSU's community of alumni and friends is legendary for their loyalty to and belief in the University. My job is to help you understand how your passion can be used to help your university achieve its important aspirations. Private gifts—of any size—make a difference. Major investments can transform a unit, college, or the University as a whole by providing the capacity to significantly alter programs to achieve strategic goals. Together, we need to think creatively



Richard L. Frisch

and ambitiously about ways that private support can take already strong programs and propel them to the world-class level. Finally, as the WSU Foundation is preparing to move to downtown Pullman, we need to actively ensure that the Foundation and the University are true partners with the Pullman community, the region, and the state.

This month marks the beginning of my first fall semester at WSU. It's exciting to see the students return to campus and the WSU community across the state gearing up to do what we do best—provide a world-class education in a supportive environment. My family has had the summer to adjust to our move, and we are feeling at home at Washington State. Of course, we aren't strangers to Pullman—

my brother and cousin graduated from WSU, and my nephew is a current student. In addition, my experience at other PAC-10 universities—USC and Arizona—made us well aware of the outstanding reputation of Washington State, both academically and with its famous "Cougar Spirit." That, I now know, permeates every aspect of campus life.

I am looking forward to these challenges and to working with you—our dedicated Cougar alumni and friends—to advance WSU and higher education in the state of Washington.

President Rawlins appointed Richard L. Frisch vice president, University Development, and president, WSU Foundation, effective June 1, 2002.

"We hope our small gifts can help students complete their degrees and become successful in their chosen careers. We hope all Cougars feel as we do."

*—Eugene (Pat) and
Maxine Patterson '41*



Eugene (Pat) and Maxine Patterson, Washington State University Foundation Legacy Associates and 1941 Liberal Arts graduates, made their first gift of \$5 to Washington State College in 1942. Pat began his employment with the Alumni Association in 1952, and in 1957 he started the Scholarship and Development Fund, an annual giving fund, that grew into the WSU Foundation. Since beginning this fund, Pat and Maxine have made annual gifts to Washington State University for more than 40 consecutive years.

What's Your Legacy?

As their legacy, in 1983, the Pattersons included a bequest for student scholarships in their wills to ensure their annual support continues in perpetuity. "Our legacy," they say, "will be carried on through the accomplishments of our scholarship students." "The Pattersons exemplify a Cougar spirit that they helped build to a level of nationally recognized prominence," said Rick Frisch, WSU Foundation president. "Their giving began with small annual gifts that have grown over the years, culminating with a bequest in their wills."



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>