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KOYFMAN

MS SAMUELA
BOX NO. 8132

DEBATE UPDATE

The First Debate — September 25, 1996

Where to volunteer

Students who want to volunteer their time in connection with the first presidential debate may pick up application forms beginning Wednesday, Aug. 28, in the Career Center, Room 150 Umrath Hall. The forms also will be available on the Career Center's World Wide Web home page at <http://www.wustl.edu/careers/>. Volunteers will be needed from Sept. 19-26. (See story on this page for more details.)

Want more information?

Washington University's home page on the World Wide Web is a virtual gateway to vast amounts of information about the upcoming presidential debate. The address of the University's home page is <http://www.wustl.edu>. Once you reach the home page, simply click on the highlighted phrase: "Information about the Presidential Debate." At your fingertips will be information about the debate and its related educational programming and news about DebateWatch '96. In addition, there are a variety of links to other debate-related Web sites.

Hotline

Call the University's Debate Hotline at (314) 935-0014 for news updates.

Coming next week ...

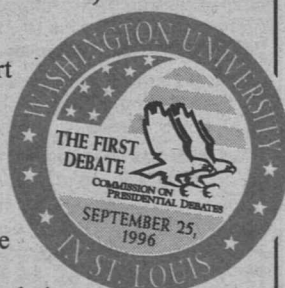
Debate-related educational programming coordinated by James W. Davis, Ph.D., professor of political science in Arts and Sciences and Teaching Center director, will be previewed. From School of Art students designing the official poster commemorating the debate to special visitors and symposiums, Davis is looking for every opportunity to incorporate the event into the curriculum and capitalize on its teaching potential across the disciplines.

RCGA event

The St. Louis Regional Commerce and Growth Association (RCGA), Washington University, FOCUS St. Louis and radio station KWMU-FM are co-sponsoring a luncheon speech and question-and-answer session with Mara Liasson, National Public Radio's chief White House correspondent. Liasson will discuss the 1996 presidential election. The event begins at noon Sept. 24 at the Adam's Mark Hotel, Fourth and Chestnut streets, downtown St. Louis. Call the RCGA at (314) 444-1170 for details and tickets.

Buttons, buttons, buttons

Donna Boyd, art director in the University's Publications Office, designed the commemorative debate buttons that are making their way around campus.



Moving into their home away from home

Freshmen Natasha Bivings, left, of Deltona, Fla., and Tiffany Perkins of Garland, Texas, move into their Shepley Residence Hall room on Thursday, Aug. 22. The first day of classes is Wednesday, Aug. 28.

A vote for volunteering

Students needed to help make first presidential debate a success

Several volunteer opportunities await students interested in giving their time as Washington University prepares to host the first 1996 presidential debate Sept. 25.

Student volunteers will assist with a variety of tasks to ensure that the debate runs smoothly. These tasks include answering telephone inquiries for the Commission on Presidential Debates; preparing and checking credentials; serving as facilitators for DebateWatch '96; assisting the media with their needs; helping usher people to their seats at the debate itself; and cleaning up after it's finished.

This is an historic event for students, said Nancy Sutherland, assistant director of the Career Center and organizer of the volunteer efforts for students.

"My goal is to get as many undergraduate and graduate students involved as possible," she said. "It is a wonderful opportunity for our students — an opportunity they will not want to miss."

Volunteer application forms will be available beginning the first day of classes (Wednesday, Aug. 28) in the Career Cen-

ter, Room 150 Umrath Hall. The forms also will be available on the Career Center's World Wide Web home page at <http://www.wustl.edu/careers/>. The deadline for returning applications to the Career Center will be printed on the forms.

On the application forms, students may indicate their preferences among volunteer opportunities. They also may sign up for various volunteer shifts throughout each day. Volunteers will be needed Sept. 19-26.

Sutherland said that although she can't predict how many students will apply, every effort will be made to find opportunities for all. She noted that it will be important for students to remain flexible because needs may change and volunteers may have to be shifted from one duty to another.

"I want to accommodate the groups putting on this debate and to meet their needs," Sutherland said. "And I want to accommodate the students' needs as well. I hope to find a good fit for both the groups and the students."

Although the details are still in flux, volunteers will be needed for these organizations and tasks, among others:

- **Commission on Presidential Debates:** Assist the national and local organizers of the debate with such tasks as fielding telephone calls; preparing and checking media credentials; and assisting the debate's executive producer and his team.

- **DebateWatch '96:** Facilitate various organized discussions on the debate with groups on campus; distribute literature; recruit participants; and train organizers for this interactive debate activity throughout the St. Louis area.

- **Media:** Assist print and broadcast journalists with their technical and logistical needs; provide information about the University; and perhaps give campus tours.

- **Ushering:** Help people to their seats in the debate hall and at other public facilities on campus where the debate will be broadcast; and answer questions from visitors.

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Wyssession maps Earth's core-mantle boundary

A Washington University geologist has taken a pioneering step toward understanding "how the other half lives."

No, he hasn't described the lifestyles of "the upper crust." Rather, Michael E. Wyssession, Ph.D., assistant professor of earth and planetary sciences in Arts and Sciences, has rendered the first global map of the Earth's core-mantle boundary, a 200-mile-wide swath of fascinating geology located about 2,000 miles beneath the Earth's upper crust.

Throughout the 20th century, geologists increasingly have come to grips with the physical and chemical reactions and composition of the planet's upper half.



Michael E. Wyssession

to get "a whole Earth" catalog.

The core-mantle boundary — a blazing (6,000 degrees Fahrenheit) chemical

But Wyssession, who has mapped localized regions and activities in the core-mantle boundary throughout this decade, has concentrated on understanding the lower half of the Earth's structure and chemistry

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Infants who die from SIDS may not be equipped to arouse themselves from sleep

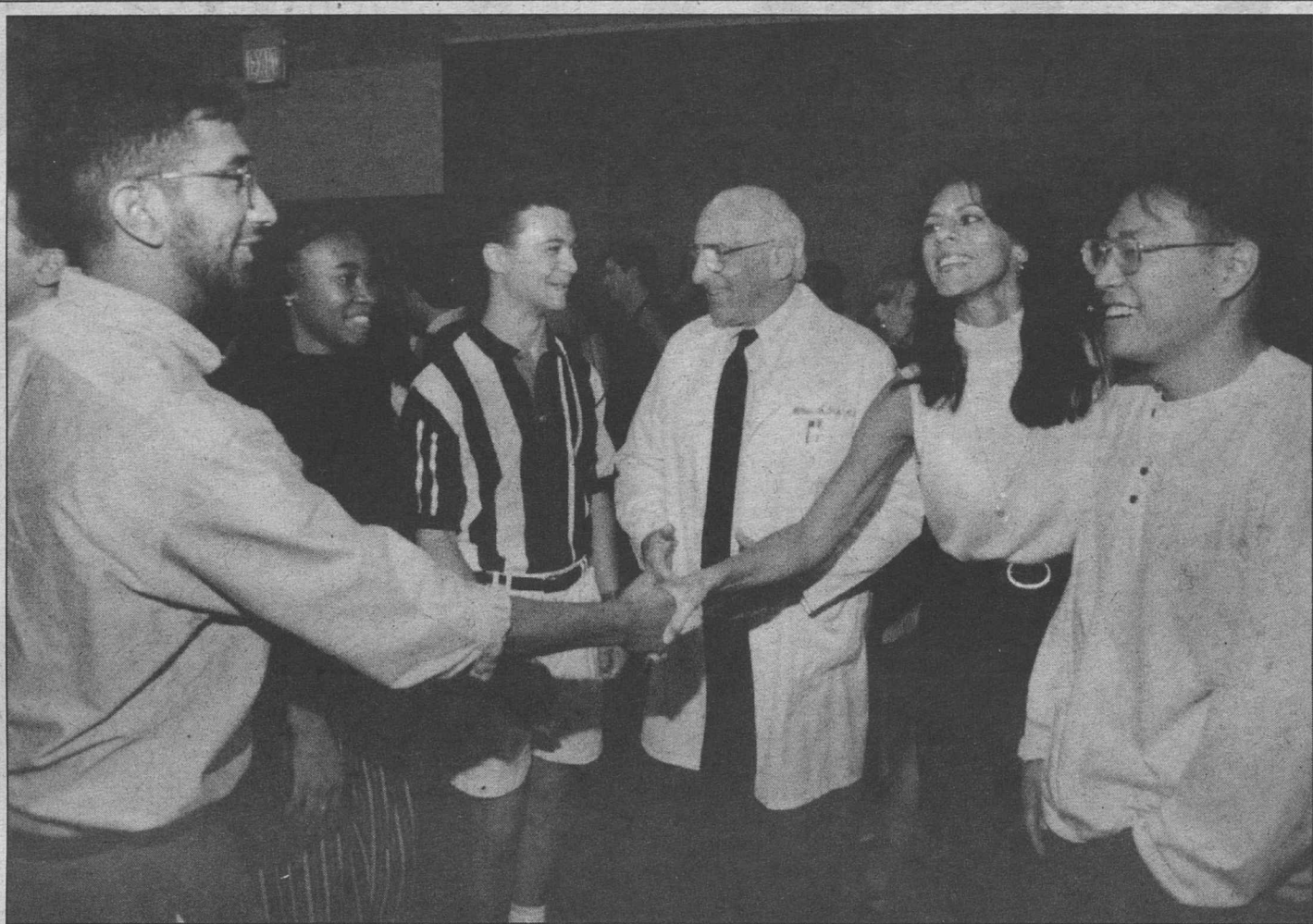
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Medical Update



Welcoming new students

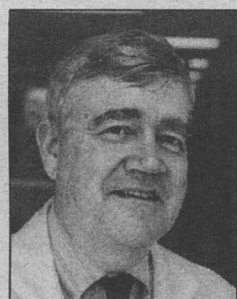
William A. Peck, M.D., center, executive vice chancellor for medical affairs and dean of the School of Medicine, gets acquainted with first-year medical students Aug. 14 during a freshman orientation in Moore Auditorium. First- and second-year students began classes Aug. 19.

Sighing and startling

Problems in sleep arousal sequence may contribute to risk of SIDS

Infants who die from Sudden Infant Death Syndrome (SIDS) may not be equipped to arouse themselves from sleep the way healthy infants can, according to School of Medicine researchers.

Reporting recently at the Fourth SIDS International Conference, Anna Lijowska, M.D., a fellow in newborn medicine, and Bradley T. Thach, M.D., professor of pediatrics, said they have



Bradley T. Thach

identified a specific sequence of reflexes that leads to arousal in infants. A problem with that sequence could contribute to accidental death while an infant sleeps. SIDS is the sudden, unexplained death of an infant younger than 1. In the United States, SIDS kills 5,000 to 6,000 infants each year. Recent studies estimate that up to 30 percent of those infants die from rebreathing exhaled air, causing a form of accidental suffocation. Sleeping face down, infants can rebreathe exhaled air, which is low in oxygen and high in carbon dioxide. This stale air becomes trapped within the bedding around the baby's face.

Rebreathing is not the only cause of SIDS, but pediatricians believe it is significant enough that they now recommend infants be put to sleep on their backs or sides rather than on their stomachs. The Consumer Product Safety Commission also has issued a "Safety Alert" that warns parents to avoid the use of soft bedding products, such as comforters or pillows, that could trap carbon dioxide near a baby's nose and mouth.

The researchers say eliminating these risks is a key to lowering the number of SIDS deaths.

But most infants can startle themselves awake if they are exposed to high levels of carbon dioxide. "Most of the time, the babies adjust their body positions. They sigh, they startle, and they turn their heads," Thach said.

Studying infants from 2 to 7 months of age, Lijowska and Thach have identi-

fied a specific sequence of arousal in sleeping infants. By gradually introducing a 10 percent carbon dioxide/90 percent oxygen mix into a hood over the heads of healthy infants in their studies, they found all of the infants aroused themselves the same way. When carbon dioxide levels rose, the infants began to sigh and startle.

The sequence begins with a sigh — a sound familiar to every parent who has watched a child sleep — in which the infant breathes in two or three times before exhaling. The sigh is followed by a startle reflex. Then the baby thrashes its head and body. Finally, there is full arousal. The entire sequence takes three to five seconds. Because the events always occur in exactly the same order, the investigators believe the sequence may point to a reflex pathway in the brain stem.

"Infants do this a lot in their sleep," Thach said. "Sometimes the arousal sequences are spontaneous. Other times they occur in response to stimuli."

The investigators believe an abnormal arousal pattern may contribute to the risk of SIDS. If an infant does not have normal reflex-arousal responses, carbon dioxide levels could continue to rise while oxygen levels fall, and the baby could suffocate.

"The fact that all infants react in the same way leads us to think that a fundamental brain stem reflex may be involved. That gives us a reason to look at the brain stem as we investigate SIDS," Lijowska explained.

She said because it is possible for researchers to initiate the arousal sequence, it also should be possible to test infants for abnormal startle reflexes. Knowing this may help doctors assess an infant's risk for SIDS. — Jim Dryden

North honored by psychiatric association

Carol S. North, M.D., assistant professor of psychiatry, has received the American Psychiatric Association's (APA) Francis Braceland Public Service Award.

North is being honored for her work with the seriously mentally ill through public-sector service to the homeless and indigent populations at three inner-city clinics. She also directs an education program for families with members who suffer from schizophrenia.

North has lectured to a wide variety of community and patient groups. Following the great Midwest flood of 1993,

she directed a volunteer mental health professional training program that provided instruction on emergency psychiatric services. Funding from the McDonnell Foundation allowed the training program to provide education to community leaders from approximately 250 organizations, such as fire and police departments, schools and businesses.

The Francis Braceland Public Service Award was established in 1977 and is given every other year to an APA member.

Cox earns distinguished scientist award

James L. Cox, M.D., the Everts A. Graham Professor of Surgery and head of the Division of Cardiothoracic Surgery, received the 1996 Distinguished Scientist Award from the North American Society of Pacing and Electrophysiology.

Cox was honored for devising and perfecting surgical treatments for cardiac arrhythmias, which are various forms of irregular heartbeats.

He is best known for developing a surgical treatment that cures atrial fibrilla-

tion, a common cardiac arrhythmia that afflicts between 1 million and 5 million people in the United States and is responsible for about 150,000 strokes annually. The disorder is characterized by spiraling electric signals that cause the heart to beat out of control. The technique Cox developed, known as the Maze procedure, curbs the chaos with a maze of incisions on the surface of the atria, the upper chambers of the heart. The incisions block the signals, stopping the atrium from fibrillating.

Johnson receives MERIT grant to extend research

Eugene M. Johnson Jr., Ph.D., the Norman J. Stupp Professor of Neurology and professor of molecular biology and pharmacology, has received a \$1.1 million MERIT award from the National Institute on Aging at the National Institutes of Health (NIH). The grant will support five years of research, with the expectation of additional years of funding.

MERIT (Method to Extend Research in Time) awards provide long-term grant support to especially competent and productive scientists. Recipients do not apply but are identified by the NIH.

Johnson studies the genetic program that triggers the death of neurons during nervous system development. This program prunes surplus cells from the developing brain. But cell death also may be triggered by events such as head injury and stroke. And it may contribute to the loss of neurons in many neurodegenerative disorders.

In 1987, Johnson showed that the death of neurons requires protein synthesis — and presumably gene expression. This finding greatly changed the way neuroscientists view the demise of these cells.

Using a model system involving cultured neurons, Johnson's group began to untangle the cascade of genetic and biochemical events that cause neurons to self-destruct. Now, scientists throughout the world are looking at the role and mechanisms of programmed cell death in brain injury and disease.

Johnson's group demonstrated that certain genes must be activated for the cell death program to run. One of the current project's aims is to understand the roles of cell death genes that code for proteins called transcriptional regulators. These proteins switch on genes that generate enzymes that dismantle the cell.

The researchers are looking for potential drugs to block neuronal cell death because the lengthy process can be halted part way through. But they also are studying the consequences of stopping the program in its tracks.

The previous five years of the project were funded by a grant to the Alzheimer's Disease Research Center, which Johnson co-directs.

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 **Washington**
WASHINGTON UNIVERSITY IN ST. LOUIS

Washington People

Shackelford studies child immune response

Penelope Shackelford was in high school when the Soviets launched Sputnik in 1957. Caught up in the U.S. push for parity, she initially studied physics. Her interest in medicine developed while she was taking a course called "Medical Physics" as an undergraduate at the University of Wisconsin in Madison.

There, Shackelford realized medicine could link her interest in research with her desire to work with people.

Today, Shackelford, M.D., is a professor of pediatrics and an associate professor of molecular microbiology at the School of Medicine, and she is delighted with her decision to go into medical research.

"It's exciting to learn new things and to understand how things work," Shackelford said. "I like medical research because I like being involved in an enterprise that gets useful results. The reward is seeing the results applied for the benefit of people."

Shackelford, who specializes in pediatric infectious diseases, has spent the better part of her career studying the human immune response to polysaccharide-encapsulated bacteria — that is, bacteria with a carbohydrate coat that helps them evade human immunological defenses. Her goal is to find out why children are so susceptible to these bacteria. In the long term, she hopes her results will be applied to the prevention of serious bacterial infections.

In 1970, when she began a fellowship in pediatric infectious diseases, many sick, hospitalized children had serious bacterial infections caused by one of three polysaccharide-encapsulated bacteria — pneumococci, meningococci or *Haemophilus influenzae* type b. Treatment was hindered by the rapid onset of these infections in children and the difficulty of diagnosis. By the end of the decade, polysaccharide vaccines had been developed to prevent these infections. Surprisingly, although they worked in adults, the vaccines were ineffective in children.

That result underscored the difference between polysaccharides and other antigens.

"In the case of diphtheria, tetanus and polio, children were highly susceptible mainly because they hadn't been exposed to the antigens — the children were still 'naive,'" Shackelford explained. "Diphtheria, tetanus and polio vaccines gave the children the proper exposure, and the children developed a protective immune response. When polysaccharide vaccines were first tried in the late 1970s, it was really disappointing — they just didn't work. We realized that children were particularly susceptible to polysaccharide-encapsulated bacteria, not because they were 'naive' but because they were simply incapable of responding."

Focusing on antibody production

In 1980, Shackelford began to direct her research toward some fundamental immunological questions: How does the adult immune system fight polysaccharide-encapsulated bacteria? In what way is a child's immune system immature? And how does the mature response develop? In particular, Shackelford's research focused on the production of antibodies.

"We knew that antibodies were the key to protection against polysaccharide-encapsulated bacteria. Without the right antibodies, the polysaccharide on the surface of the bacterial cell makes it impossible for the neutrophils — the cells that 'eat' invading organisms — to grab the bacterium. It's like a greased pig," Shackelford said. "Antibodies, on the other hand, are able to attach to the polysaccharide. Then the neutrophil sticks out receptors that attach to the antibody, pulls the bacterium in, and literally consumes it."

In the 1980s, the antibodies to polysaccharides were thought to belong to a particular antibody subclass called IgG2. "Everyone was so convinced that doctors had begun to treat many individuals who had frequent respiratory infections and depressed levels of IgG2 with gamma globulin," Shackelford said.

One of Shackelford's most important studies, from a clinical point of view, put an end to that practice by showing that, in fact, about half of the antibodies to polysaccharides belong to another subclass, IgG1, and that many perfectly healthy children have depressed levels of IgG2.

In a later study, Shackelford and her colleagues took their analysis a step further by determining not just the antibody subclasses but also the individual antibodies used to fight *Haemophilus influenzae* type b. Their results were strikingly different from those obtained for other antigens. Whereas the immune system produces about 100 different types of antibodies to protein antigens, such as tetanus-toxoid, Shackelford found two to five types of antibodies to *Haemophilus influenzae* type b. This finding suggests that children may be susceptible to polysaccharide-encapsulated bacteria because their immune systems are unable to express the few genes that specify those particular antibodies.

"Why that is, we don't know yet," Shackelford said. That's going to be the subject of future studies.

Although her research may seem challenging enough, Shackelford also is a teacher, administrator and clinician.

with medical students and residents. It's exciting to see those rapid changes and development."

Shackelford's personal approach to her students' educations and careers is not surprising because she attributes her own direction in medicine to the guidance of two talented physicians.

Dorothy Jones, M.D., the attending physician in the pediatric ward at the Children's Hospital of St. Louis during Shackelford's third-year rounds, was the one who convinced her to go into pediatrics. While working with Jones, Shackelford was impressed by the way she interacted with parents and patients. Her admiration became a source of personal ambition: "I hoped to be like her and was able to see myself as her," Shackelford said.

Shackelford later was recruited into infectious diseases by Ralph Feigin, M.D., then director of Pediatric Infectious Diseases at Children's Hospital, who invited her to do a fellowship with him.

"Penny impressed me as one of the best residents we had. She showed great initiative and intelligence and was wonderful at caring for patients. That's the kind of person I look for," Feigin said.

Shackelford found Feigin's enthusiasm for the subject irresistible. "He was so inspiring — I think the enthusiasm he generated in me will last a lifetime," she said.

Shackelford plays an equally important role in her own students' careers.

When Peggy MacDonald, M.D., entered the School of Medicine 14 years ago, Shackelford was one of her first-year instructors. She has been MacDonald's teacher and mentor ever since.

MacDonald said she appreciates Shackelford's human touch and her enthusiasm for many things in life, in addition to medicine. Shackelford always has been receptive to her ideas, both scientific and otherwise.

Shackelford is acting as MacDonald's adviser as she starts her own independent laboratory.

Shackelford is interested in helping young physicians like MacDonald because she believes it's more difficult for physicians today to set up their laboratories and practices. "I figure I have my career. Now it's their turn," she said.

She also believes that medical education and training on the whole need to be restructured, and as director of Pediatric Specialty Services at Children's Hospital, she is working toward putting her ideas into effect.

"Twenty to 30 years ago, patients would come to the hospital early in their illnesses. Now patients are in the hospital only a few days. So students only see one tiny little part of a patient's progress," she explained.

Medical students and residents need more exposure to "ambulatory" patients, or outpatients — the kind seen at Pediatric Specialty Services, she said.

"I am working toward getting students and residents involved in that part of the process," she said. "That way, they would see a broader spectrum of cases than if they only saw hospitalized patients."

A lifelong collaboration

Shackelford met her husband, Gary D. Shackelford, M.D., a professor of pediatrics and of radiology, when they were classmates at the School of Medicine. (They both received medical degrees in 1968.)

"Gary and I collaborate on so many things in life that it's hard to sort out what's work and what's personal. That has been true all the way back to medical school when we used to study together," she said.

The Shackelfords are collaborating on a new project, an extracurricular one — the ecological restoration of their 380-acre property in Wisconsin. "It's my second career," she said. The Shackelfords are working with forestry experts, wetlands botanists and wildlife conservationists to reverse the impact of the European settlers and their descendants on the ecology. Their goal is to restore the land to its pre-colonial state.

The Shackelfords' daughter, Lisa, chose not to follow in the family footsteps to medicine. She is a businesswoman, although "she may be coming around," Shackelford joked. Lisa is working in Santiago, Chile, for ClinTrials, a company that finds investigators to test new drugs for pharmaceutical companies.

— Debra Daugherty



Penelope Shackelford, M.D., left, listens to Lauren James' heart while Sean Elliott, M.D., right, a fellow in infectious diseases, signs the girl's stuffed animal. Lauren is being treated for gastroenteritis.

"Teaching really helps crystallize my understanding of a subject."

Extremely popular among medical students, she was voted the School of Medicine Teacher of the Year in 1989.

Shackelford bases her pedagogical techniques on the Socratic method of asking and answering questions. That way, she said, everyone learns together.

Open exchange does not come easily to students accustomed to the more traditional, passive approach to learning. To overcome their reserve, Shackelford cultivates a rapport with her students and lets them know she is not there simply to instruct but also to direct the exchange of information and ideas.

"I show slides of my family, my pets or my travels at the start of every lecture to show the students that I am a human being, that I am a student myself and that we can talk and have a dialogue," she said. "I think it establishes a relationship between me and the students and loosens things up."

Shackelford makes an effort to educate in the clinic as well as in the classroom. She regards herself as a teacher for parents and patients, medical students and residents alike. But when she's teaching, the students aren't the only ones who benefit. Shackelford believes the questions students ask usually get to the core of the issue at hand. "They constantly refocus my own thinking and bring me new insights. Teaching really helps crystallize my understanding of a subject," she said.

She enjoys teaching medicine because of the dramatic advances her students make, and she takes almost parental pleasure in seeing them achieve. She likened it to teaching swimming.

"In swimming, the students show such rapid and definite progress — first they sink, then they swim," Shackelford said with a grin. "There's a wonderful moment when the person can suddenly stay afloat and move through the water. I think the same thing happens

Calendar

Visit Washington University's on-line calendar at
<http://cf6000.wustl.edu/calendar/events/v1.1>

Aug. 29–Sept. 7



Exhibitions

"Art to Enchant: Illustrators and Shakespeare." Through Aug. 30. Special Collections, Olin Library, Level Five. Hours: 8:30 a.m.-5 p.m. weekdays. 935-5495.

"Print Portfolios." Twenty-five prints by faculty members and graduate and undergraduate students done in various methods of printmaking. Through Sept. 22. Bixby Gallery, Bixby Hall. Hours: 10 a.m.-4 p.m. weekdays; 1-5 p.m. weekends. 935-4643.

"Art & Science: Investigating Matter." Features California artist Catherine Wagner's black-and-white photographs of scientific instruments and objects. Much of her work comes from WU scientific laboratories. Wagner was an artist-in-residence last year in the School of Art. Opening reception: 5-7 p.m. Sept. 6. Exhibit runs through Nov. 3. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-4:30 p.m. weekdays; 1-5 p.m. weekends. 935-5490.



Lectures

Thursday, Aug. 29

10 a.m. Molecular microbiology and microbial pathogenesis thesis defense. "Actin in Toxoplasma Gondii: An Essential Component for Motility and Host Cell Invasion." Janice Dobrowolski, graduate student in molecular microbiology and microbial pathogenesis. Room 775 McDonnell Medical Sciences Bldg. 362-3365.

11:15 a.m. Center for Mental Health Services Research seminar. "Proposal Critique: Perceived Benefits, Services, Coping and Mental Health Adjustment," Curtis McMillen, asst. prof. of social work. Room 353 West Campus Administrative Center. 935-5687.

12:15 p.m. Center for Mental Health Services Research seminar. "Paper Presentation Practice/Critique: Dietary Changes in African-American Women by Activation," Wendy Auslander, assoc. prof. of social work. Room 353 West Campus Administrative Center. 935-5687.

Wednesday, Sept. 4

8 a.m. Obstetrics and Gynecology Grand Rounds. "Skin Conditions in Pregnancy,"

Thomas Solenberger, fellow, Maternal Fetal Medicine Division. Clopton Aud., 4950 Children's Place. 454-7886.

11 a.m. Assembly Series lecture. "One Thousand and One Ways to Solve the Future," Ray Bradbury, science fiction writer. Graham Chapel. Because of a large anticipated attendance at this lecture, public seating will be limited. Outside sound will be set up for those unable to gain admittance. 935-5285.

Thursday, Sept. 5

2:30 p.m. Mechanical engineering seminar. "Three-dimensional Cross-bridge Theory," George I. Zahalak, prof. of mechanical engineering. Room 100 Cupples II Hall. 935-6055.

4 p.m. Earth and planetary sciences colloquium. "Non-economic Geology: Mentally Mining the SO₂ Cloud at Mount Pinatubo," Jill D. Pasteris, prof. of earth and planetary sciences. Room 362 McDonnell Hall. 935-5603.



Music

Thursday, Aug. 29

Auditions begin. The 1996-97 vocal and instrumental ensembles auditions will be held through Sept. 10. Open to all WU students, faculty and staff. For times, locations and more info., call 935-7405.

Saturday, Sept. 7

7 p.m. Indian vocal concert. Features T.V. Sankaranarayanan and Party. Steinberg Hall Aud. Cost: free for WU faculty, staff and students; \$10 for all other adults; and \$7 for senior citizens and other students. 935-5574.



Performances

Thursday, Aug. 29

7-11 p.m. Drama auditions continue. The second day of the 1996-97 drama productions auditions will be held in Edison Theatre. A sign-up sheet for audition times is posted on the glass doors outside the Performing Arts Department's administrative offices, Room 314 Mallinckrodt Center. Call-backs will be held Aug. 30. Open to WU students, faculty and staff. 935-5858.

Friday, Aug. 30

6 p.m. Dance Theatre auditions. The 1996-97 Dance Theatre auditions will be held in the Dance Studio, Room 207 Mallinckrodt Center. Open to WU students only. There are no sign-ups for specific times. 935-5858.

Thursday, Sept. 5

8 p.m. Dance concert. "Dance Close-up," an informal dance concert by members of the dance faculty. (Also Sept. 6 and 7, same time.) Dance Studio, Room 207 Mallinckrodt Center. Cost: \$8 for the general public; \$6 for senior citizens, faculty, staff and students; and \$5 to sit on the studio floor. (See story, page 5.) 935-6543.



Miscellany

Campus Y classes. Beginning Sept. 9, the Campus Y will offer a number of classes for people concerned about their physical health. Participation in the classes helps support the Campus Y's community-service programs. Class topics include meditation, step aerobics, dancing and yoga. For schedules and cost info. on all classes, call 935-5010.

Thursday, Aug. 29

Office of Continuing Medical Education symposium registration continues. "Third Annual Current Topics in Cardiothoracic Anesthesia." To be held Sept. 6-8 in the Eric P. Newman Education Center. Registration open through Sept. 5. 362-6891.

Office of Continuing Medical Education symposium registration continues. "Laparoscopic Common Bile Duct Exploration and Ultrasound Imaging Course." To be held Sept. 27-28 in the Eric P. Newman Education Center. Co-sponsored by the Institute for Minimally Invasive Surgery. Registration open through Sept. 26. 362-6891.

Office of Continuing Medical Education symposium registration continues. "22nd Symposium on Obstetrics and Gynecology." To be held Oct. 10-11 in the Eric P. Newman Education Center. Registration open through Oct. 9. 362-6891.

Office of Continuing Medical Education symposium registration continues. "Contemporary Cardiothoracic Surgery." To be held Oct. 17-19 in the Eric P. Newman Education Center. Registration open through Oct. 16. 362-6891.

Auditing Program courses continue. Offered to adult students at a reduced fee on a non-credit, space-available basis. Courses are offered in arts and literature; history and area studies; politics and reli-

gion; and scientific inquiry. Many courses offer day and evening options. Courses held through Dec. 9. Sponsored by the College of Arts and Sciences and University College. For costs and schedule info., call 935-6777.

Sunday, Sept. 1

Hillel retreat. The Jewish Student Council is sponsoring a getaway for all Jewish students interested in building community on campus. Continues through Sept. 2. Lake of the Ozarks. Cost: \$25. Make reservations at the Hillel Center, 6300 Forsyth Blvd. 726-6177.

Tuesday, Sept. 3

6 p.m. Hillel Center event. A barbecue will be held for students returning from abroad. Hillel Center, 6300 Forsyth Blvd. 726-6177.

Wednesday, Sept. 4

8 p.m. Poetry reading. Yusef Komunyakaa, visiting prof. of English, winner of the 1994 Pulitzer Prize for poetry and author of "Neon Vernacular," "Dien Cai Dau" and "I Apologize for the Eyes in My Head." Hurst Lounge, Room 201 Duncker Hall. 935-5190.

Friday, Sept. 6

8:30 a.m.-5 p.m. Occupational therapy workshop. "Occupational Therapy Functional Assessment and Outcomes in the Managed-care Environment." Continues Sept. 7. Forest Park Bldg., 4444 Forest Park Ave. Cost: \$195. 286-1614.

11:30 a.m. Washington University Toastmasters For Oratorical Readiness meeting. "Training Session for Effective Speech Evaluation," Jean M. Inabinett, member, Toastmasters International. Room 353 West Campus Administrative Center. 935-5934.

Saturday, Sept. 7

10 a.m.-noon. University College writing workshop. "Fiction." Instructed by Melissa Levine, M.F.A. candidate and Olin Fellow in the Writing Program. Includes methods and techniques for writing fiction. Continues Saturdays through Oct. 26. Cost: \$205. For more info. and to register, call 935-4847.

10 a.m.-noon. University College writing workshop. "Poetry." Instructed by Sally Ball, local poet and International Writers Center program coordinator. Includes instruction in imagery, diction, rhythm and form. Continues Saturdays through Oct. 26. Cost: \$205. For more info. and to register, call 935-4847.

10 a.m.-1 p.m. University College writing workshop. "The Craft of Writing: Grammar and Usage." Instructed by Tatnall Warner, lecturer in communications and journalism and news editor at the St. Louis Post-Dispatch. Cost: \$25. For more info. and to register, call 935-6788.

Volunteers — from page 1

• **Clean-up:** Help restore the Athletic Complex and surrounding areas to their normal state after the candidates, dignitaries, guests and the thousands of journalists leave.

Sutherland urges faculty and staff to spread the word to students about volunteering.

"I would encourage both faculty and staff to let the students know about these opportunities — to discuss it with their students and announce it to their classes," Sutherland said. "This is such a great event for the Washington University community. We want to draw a diverse group of students and would like a large response from our student body."

Will student volunteers get to meet the candidates?

"I don't want to promise things I can't deliver," Sutherland said. "To be honest, I don't know how close they will be to the candidates. I don't know how close I'll be to the candidates. But it will definitely be an experience they will not soon forget."

— Neal Learner

Four authors, special literary event featured in reading series

The fourth season of the International Writers Center Reading Series will feature four authors reading from their works and a special literary performance co-sponsored by Edison Theatre. All programs begin at 8 p.m. in the West Campus Conference Center.

The first program, on Oct. 15, features Canadian poet Anne Carson. Other writers in the series are Guatemalan-American novelist and journalist Francisco Goldman on Dec. 10; English poet and translator Michael Hofmann on Feb. 18; and novelist Joanna Scott on March 18. The Nuyorican Poets Cafe Live! will perform April 11 and 12 in a special event co-sponsored by the International Writers Center in Arts and Sciences and Edison Theatre.

The Chicago Tribune calls Carson "a master of language." Writer Guy Davenport says, "Anne Carson's powers of invention are apparently infinite." About her two most recent books —

"Plainwater" (1995) and "Glass, Irony and God" (1995) — Bruce Hainley of The Village Voice Literary Supplement writes, "Since language is its twin, desire has attracted many writers. But it has no more ready and brave a geographer than Anne Carson, whose two new books investigate the body's thunder."

Carson's other books include "Short Talks" (1992) and "Eros the Bittersweet: An Essay" (1986). "Greed: Simonides," a collection of essays, is forthcoming in 1998.

Carson has received numerous awards and fellowships — both in her native Canada and in the United States — including a Rockefeller Foundation Fellowship and two Writer's Residency Fellowships to Canada's Banff Centre School of Fine Arts.

Currently a professor of classics at McGill University in Montreal, Carson has taught at Princeton and Emory universities and at the University of Toronto. She also served as a consultant for the

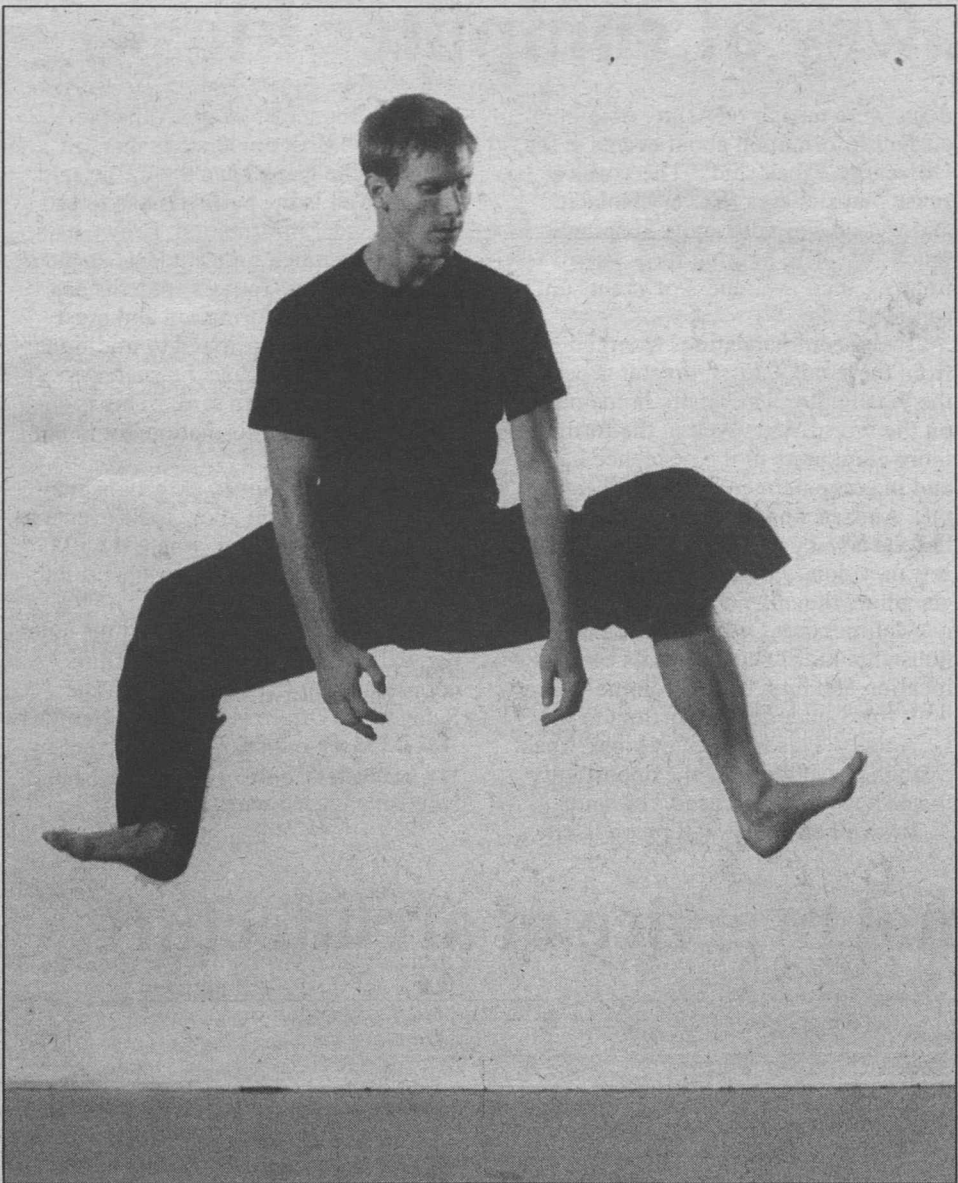
PBS documentary "The Nobel Legacy," a series on the conflicting values of science and humanism.

Carson will be introduced by Steven Meyer, Ph.D., assistant professor of English in Arts and Sciences. Her reading will be followed by a book signing.

A season subscription to the reading series is \$15. Admission to a single event is \$5. Students with valid identifications and senior citizens will be admitted free. Arts and Education Council cardholders will receive a two-for-one discount. For ticket information for the Nuyorican Poets Cafe Live!, which requires a separate ticket purchase, call the Edison Theatre box office at (314) 935-6543.

The International Writers Center Reading Series is underwritten by the Arts and Education Council, the Lannan Foundation, the Missouri Arts Council, the Regional Arts Commission and Mary and Max Wisgerhof.

For more information, call (314) 935-5576.



DAVID KUEPER

David Marchant, an artist-in-residence in the Performing Arts Department in Arts and Sciences, will perform in the upcoming "Dance Close-up."

'Dance Close-up' concerts showcase performances by renowned faculty

The Washington University dance faculty will present an informal and intimate evening of dance with their "Dance Close-up" concerts at 8 p.m. Sept. 5, 6 and 7 in the Dance Studio, Room 207 Mallinckrodt Center.

A showcase of the University's renowned dance faculty, "Dance Close-up" features several performing arts and dance faculty members in a sampling of distinctly different dance styles. The concerts will include modern dance, ballet, and classical dances of Africa and India.

"The University dance faculty will present their works informally in an intimate setting — the kind of dance concert typical of 'downtown dance' in New York City," said Mary-Jean Cowell, Ph.D., associate professor and coordinator of the dance program in the Performing Arts Department in Arts and Sciences. "The variety of dance styles and techniques represented by this group makes for a stimulating evening of dance."

The program includes the following dances:

- "Breathing Lessons" — David Marchant, a third-year artist-in-residence, performs a short improvisational work incorporating sounds generated by his body and by movement, including breathing and footfalls. This will be blended with music. Marchant has been a professional choreographer and performer since 1989 and was a member of Utah's Repertory Dance Theatre and Corning Dances & Company.

- "Metamorphosis" — Christine O'Neal, artist-in-residence and director of the ballet program, performs a work that encompasses three dance images: the first of an animal, the second of a figure off-balance perched on a wooden box, and the third of a woman striking poses as she smokes a cigarette. The piece, which is set to the music of Samuel Barber, concludes with a blending of boundaries between all three images. O'Neal is a former soloist with the National Ballet and the American Ballet Theatre and performed in the 1977 Academy Award-nominated film "The Turning Point."

- "Aanandam (Happiness)" — Asha Prem, dance instructor, performs a work that tells the story of a princess who visits the palace of a prince upon hearing

of his victory at war. When the two meet, they fall in love. The piece stresses rhythmic elements, music and the features of classical dance of India. Prem is the founder of Missouri's oldest school of dances of India — which marks its 20th anniversary this year.

- "Research" — Cowell, Prem and Bill Whitaker, an actor/director and artist-in-residence, return with a slightly revised version of last year's humorous investigation into the meaning of "research" and its relevance to dance. Cowell, a former member of the St. Louis Repertory Dancers, provides the choreography and script for the piece, which is performed to music by Igor Stravinsky and Johann Sebastian Bach.

- "Spilled" — Mary Ann Rund, adjunct dance faculty, and Marchant perform a work Rund choreographed to the music of Tom Waits and Bob Dylan, as performed by Shawn Colvin. The first section is a duet dealing with weight — physical, mental and emotional. The second section is a solo dealing with the aftereffects of the loss of weight and the adjustment to the lightness of being. Rund is a member of the Burning Feet Contemporary Dance Company and has presented her own works in New York and across the country.

- "Whisper" — Angel Mendez, O.P., adjunct dance faculty, performs a solo work that intends to touch upon and display the experience of pain, suffering and death, especially of terminally ill children. The work is a reflection of Mendez's ministry as a chaplain at Children's Hospital in New Orleans, where he spent this past summer.

- "The Journey of Life Through Drum and Dance" — Imani Mtendaji, a new adjunct dance instructor, performs an African dance accompanied by the drumming of her husband, Kunama Mtendaji. The work portrays a journey through life, touching on such themes as birth, manhood, womanhood and the afterlife. The husband-and-wife team have a company called Taifa, which performs African and African-American dances, drumming and storytelling throughout the area.

"Dance Close-up" tickets are \$8 for the general public and \$6 for senior citizens and University faculty, staff and students. Tickets to sit on the studio floor are \$5. Tickets are available at the Edison Theatre box office at (314) 935-6543.

Student musicians hone skills while they pursue other degrees

It's a common refrain that goes something like this: "I used to play the trumpet in my high school band — now it's in the attic gathering dust."

This "same ole song" of letting musical talents wither as the pressures of college grow certainly was not the case for four recent Washington University graduates. Not only did these talented individuals keep their musical fingers and vocal chords limber while pursuing other academic endeavors, they also excelled to remarkable levels of technique and artistry. And all of them praised the support they received from the Department of Music in Arts and Sciences.

Every semester, more than 400 non-music majors take private lessons through the music department or perform in University ensembles. Many of the students receive financial assistance through the Friends of Music and other scholarship sources to help cover lesson costs.

For Melinda Block, a School of Art graduate who presented a voice recital along with slides of her artworks, continuing her lessons was only natural.

"I've taken lessons since I was a little kid," said Block, who studied with Jolly

Stewart, instructor in voice and director of the Washington University Opera. "I've always enjoyed singing in front of people. But this recital was above and beyond anything I've ever done before. This was something I felt I needed to do."

Block performed in Steinberg Hall Auditorium while slides of her artworks, inspired by her selection of songs, were projected onto a wall near her. The recital, which consisted of works by Samuel Barber, John Corigliano and Francis Poulenc, was a success — and a lot of work. "It was probably the hardest thing I did all four years," she said.

She said music holds a deeper meaning for her than simply performing. "Music gives me something I can't get anywhere else," said Block, who is beginning her career in public arts funding in Oregon. "I can just go into a practice room and sing by myself. I don't have to show it off, and I don't have to get critiqued. It's a great release of energy."

Such is the case for Jason Carney, a School of Architecture graduate who presented a solo piano recital and performed a concerto with the Washington University Symphony Orchestra. Although he said performing is important, it's not his main motivation. "I get much more fulfillment out of rehearsing and playing alone than I do playing a concerto on stage," said Carney, who studied with Annette Burkhart, instructor in piano.

Carney performed Edvard Grieg's Piano Concerto in A minor with the Symphony Orchestra last winter. His performance of the technically brilliant and demanding

piece received an enthusiastic standing ovation. Last spring, Carney performed a recital in Graham Chapel, an experience he said was even more enjoyable than playing the concerto. "You definitely have more control when you're playing by yourself," he said.

Carney, who has moved to New York City to work in an architecture firm before going to graduate school, said there still are pieces he wants to learn and perform. "I don't want to say it's a hobby; it's more than that," he said of playing the piano. "But I have never had a desire to make my living at it."

He noted that there are aspects of playing the piano that spill into his career. "It's taught me rigorous discipline — of the need to go over and over something until you get it right," he said.

Nicole Willeumier, a School of Medicine graduate who performed two violin concertos with the Symphony Orchestra, agreed that the benefits of music rub off onto other areas of life. "I attribute so

much of my success in general to playing the violin,"

Willeumier said.

"Mentally, the training you get from playing is so great. When you play something, there is just an incredible feeling. It's not just

that you escape into the music. When you're done playing, it feels great, too."

Willeumier, who is starting a residency in pediatrics at Barnes-Jewish Hospital, was twice soloist with the Symphony Orchestra, under the direction of Dan Presgrave, instrumental music coordinator and lecturer in music. Last spring, she played an extremely difficult violin concerto of Jean Sibelius on a rare violin loaned to her by the music department. She also has performed as a soloist with the Washington University Chamber Orchestra, under the direction of Elizabeth Macdonald, visiting artist in music. The violin always will have a place in Willeumier's busy schedule.

"I can't even go three or four days without playing," she said. "I can imagine that if you go for a few years without playing, it would be so hard to start again. But I still think it's worth the effort."

Richard Marn, an Arts and Sciences graduate who majored in chemistry, prepared a full guitar recital in Graham Chapel last spring. "I knew when I first got here that I wanted to play in Graham Chapel," said Marn, who studied with Alan Rosenkoetter, instructor of classical guitar. "I had never done something this big and on my own before."

His recital consisted of works by Mauro Giuliani, Niccolò Paganini and a piece Marn composed himself. "I really busted my chops to get this program and recital going," said Marn, who is attending medical school this fall. "I was very happy I did it."

— Neal Learner

Campus Watch

The following incidents were reported to the University Police Department from Aug. 19-25. Readers with information that could assist the investigation of these incidents are urged to call (314) 935-5555. This release is provided as a public service to promote safety-awareness on campus.

Aug. 19

1:12 p.m. — A student reported that a locked mountain bike, valued at \$640, was stolen from a bicycle rack near Olin Library.

2:27 p.m. — A student reported that, between Aug. 14 and 19, a guitar, valued at \$400, was stolen from the sculpture shed.

Aug. 20

2:12 a.m. — A student moving into Hitzeman Residence Hall found a pistol clip, containing live ammunition, and hair products in a desk drawer. The owner could not be determined.

Aug. 22

7:40 p.m. — A University Police officer was approached by an unleashed dog at Sever Hall. The officer advised the dog's owner of the University's leash policy. The

incident has been referred to the Office of the General Counsel.

Aug. 23

2:55 a.m. — University Police responded to a report of a burglary at Millbrook Square apartments. A student allegedly entered an acquaintance's apartment through an unsecured window. The incident has been referred to the judicial administrator.

5:39 p.m. — A student was injured in Urbauer Hall when chemicals reacted and splashed the student's face.

Aug. 25

1:41 a.m. — A University Police officer observed three males shooting off fireworks near a fraternity house. When approached, the three fled into the house and refused to open the door at the officer's request.

On-line calendar a 'touch' away at computer kiosk

People wondering "What's goin' on?" now can find the answers on a new computer kiosk in the Mallinckrodt Center lobby.

By simply touching the screen, anyone can access information on the multitude of events taking place at Washington University.

The kiosk, available for use during Mallinckrodt's operating hours, contains a touch-sensitive computer screen, a keyboard for inputting topics to be searched and a printer. The computer is dedicated to the Washington University home page at <http://www.wustl.edu>, from which the University's on-line calendar can be accessed. The same information on the kiosk can be obtained on any personal computer connected to the World Wide Web.

Installed in mid-July, the kiosk so far has proven its effectiveness, said senior Chris Brown, an assistant in the Scheduling Office and information desk manager.

"We've had more than 3,000 hits," said Brown, referring to a tracking system that counts how many times the kiosk has been

used. "Our goal is to get the students and the Washington University community better informed. This is one way to do it."

Karen Levin Coburn, associate dean of student affairs and interim director of student activities, said she believes the kiosk could be one of the best ways to present information on a busy campus. The kiosk will be operated by the Scheduling Office, which falls under the supervision of the Office of Student Activities.

"We see it as a dynamic way to present information," Coburn said. "A lot of people pass through Mallinckrodt every day. More and more people are used to going up to a kiosk, in hotels and airports, and getting their information. I think this will catch on here."

The idea for the kiosk developed out of the Student Experience Cluster's focus-group discussions held between students and the administration during the past several years, said Stuart Yoak, Ph.D., University registrar.

"One of the big issues that emerged from these focus groups was that stu-

dents were having difficulty obtaining current information about events at the University," Yoak said. "There was a sense that students felt very isolated and were having difficulty keeping in touch. We were looking for a way to improve their awareness of events on campus."

Two recommendations emerged from these talks. First, greater access to the Washington University home page on the World Wide Web in the form of more computers in the residence halls and in computer centers around campus. And, second, the kiosk. The kiosk has the advantage that students can use it if they don't have access to computers where they live, Yoak said.

Mallinckrodt Center was selected to house the kiosk because of its central location and high traffic volume — both from students and visitors to the University. This is the pilot kiosk, Yoak explained. "It gives us the opportunity to see how much it's used," he said.

Brown believes it will prove itself

useful in the long run as a valuable resource. "Most universities that are ahead of the game have them," he said.

The Web is the perfect place to provide calendar information, Brown said, noting how much time students spend at their computers. Today's students are swamped with information and most have become desensitized to traditional forms of events listings — such as posters and fliers, Brown said. "This is another way to get information out to the public," he added.

Student and University groups may submit information about their events to the Scheduling Office, where it will be inputted and will appear on the on-line calendar immediately.

For more information about the calendar, call Diane Woepke, scheduling coordinator, at (314) 935-5234. The Scheduling Office is located at Campus Box 1155. Submissions may be sent by fax to (314) 935-4094 or by e-mail to woepke@wuacn.wustl.edu.

— Neal Learner

Students experience international practice of architecture

While nearly a dozen School of Architecture graduate students conversed with a Rain Queen in South Africa this past summer, their peers in Spain picked the brains of internationally renowned architects. Elsewhere in Europe, undergraduate students observed, recorded and analyzed some of the great urban buildings of all time.

Experiences abroad such as these allow students to better understand the international practice of architecture, said John Hoal, visiting assistant professor and director of the Master's of Architecture Urban Design Program.

"We have to sensitize our students to the architecture of developing countries," said Hoal, who led the eight-week South African design studio, which included study in Johannesburg, Cape Town and Durban. "Architects today have to be able to move from one culture to another and practice in cultures that are vastly different."

One of the most memorable moments of the new South African studio was talking with the Balodebo tribe's Rain Queen through an intermediary, the graduate students said.

"She was one of the tribal leaders, and it was unusual since she was a woman," recalled third-year graduate student JoAnn Brookes. "She determines whether or not it rains; it's an arid country, so she is very powerful."

But the most significant aspect of the studio was the 10 graduate students working with tribal leaders and residents to design two much-needed community centers. The finished designs and models were turned over to the nonprofit PEACE Foundation, which will seek funding for the centers to be built.

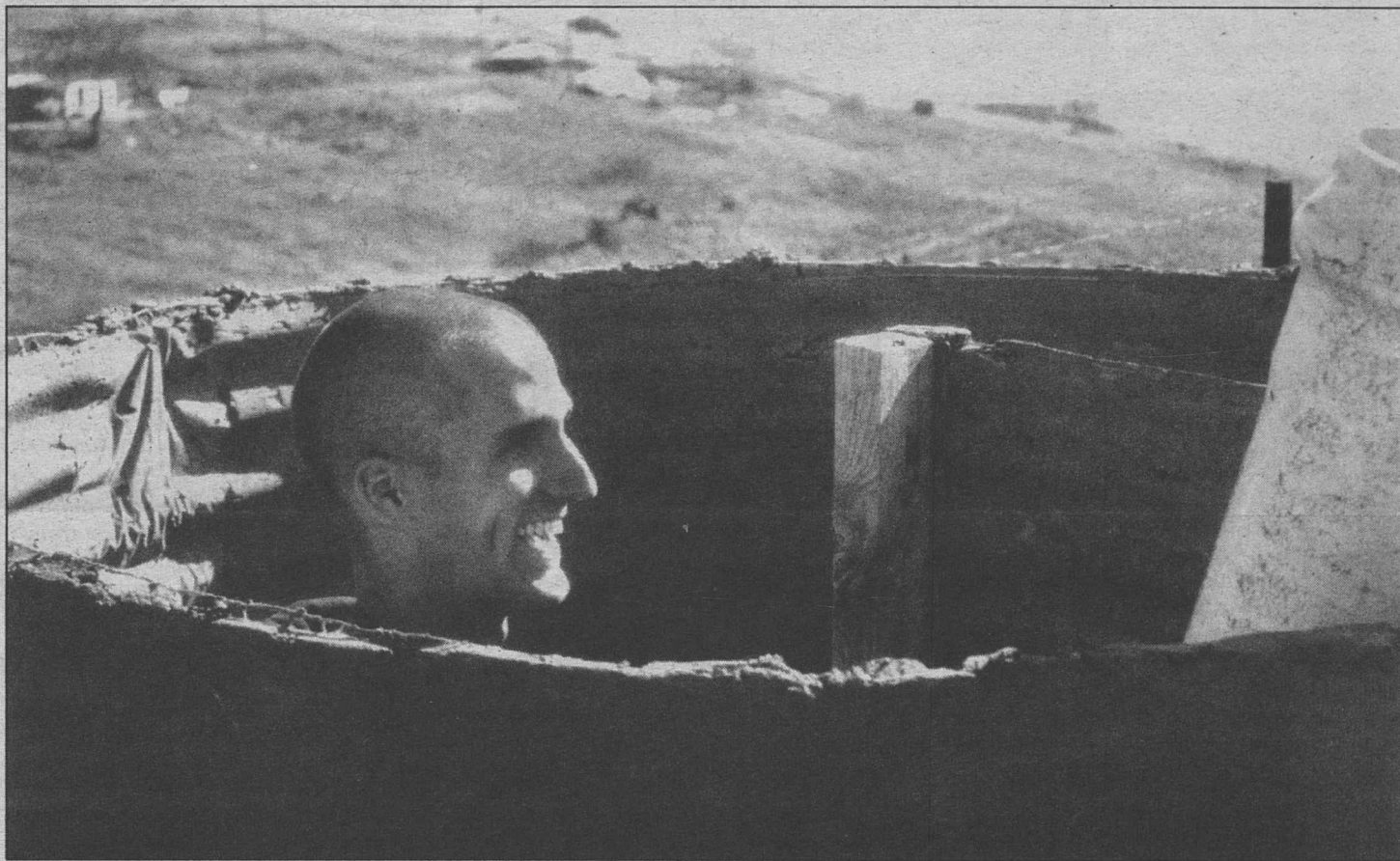
"Everything is based on empowerment in South Africa," observed Brookes, who helped design a rural center complete with a preschool, adult-education center and marketplace. "There is a tremendous amount of optimism and hope."

Studying Spanish architecture

A continent away, the annual summer studio in Barcelona, Spain, took on an added dimension this year with that city hosting the XIX Union of International Architects Congress. The students were taught by some of the participants in the conference, which drew thousands of academic and professional attendees worldwide.

The 14 graduate students also attended lectures and tours by prominent Spanish architects. In the studio exercises, the students designed a new building for an older quarter of the city and worked with international students from the conference on development designs for a coastal area. At the end of the program, a panel of architects judged the designs.

"Architects there pay so much attention to detail. They design everything from the building to the door handle to the pattern on the floor tile," recalled third-year graduate student Tamara Fuchs. "They don't have strict building



Marcus Moomey, a second-year graduate student in the School of Architecture, inspects the building materials used in a partially constructed outhouse in rural South Africa this past summer. Graduate students in the studio studied the South Africans' use of inexpensive local materials and easy-to-construct building designs for sites that lacked running water and other basic utilities.

codes over there, so there is much more freedom. The shapes are more visually interesting, and the design is much more complex."

The master's degree students in Barcelona were exposed to "an array of contemporary buildings that no other city in the world can offer," said Associate Professor Adrian Luchini, who led the nine-week program.

In the last 15 years, and in part because Barcelona hosted the 1992 Olympics, the government has financed a tremendous amount of building, including airports, schools, hospitals, housing projects, plazas and parks.

"The new government has been very sophisticated in its selection process and has commissioned very talented architects," Luchini said. "Contemporary Spanish architects have written a whole new chapter on contemporary design."

The graduate students also viewed top-notch architectural exhibits in conjunction with the international congress in Barcelona and traveled to Milan, Italy, to study Italian influences on Spanish architecture.

Experiencing Europe's best

In the architecture school's first undergraduate traveling workshop, 10 students observed and drew architectural structures in Berlin, Barcelona, Rome and Paris. Before the four-and-a-half weeks of field work, the group studied graphic and photographic methods for two weeks on campus.

"It was a breakthrough from the usual pedagogical experience since the students

were focusing on analysis and study of existing great buildings," said Associate Professor Iain Fraser, who led the workshop. "They received a much more sophisticated and enhanced view of what architecture is in its finest manifestations, as well as what is involved in a building — from its structure to enclosure to scale."

The students traveled to world-famous architectural sites such as Mies van der Rohe's National Museum in Berlin, Antoni Gaudi's buildings and parks in Barcelona, the ancient Colosseum in Rome, and Le Corbusier's buildings in Paris.

"The students experienced the buildings not as abstract entities but as real places, studying them and being in and around them for half a day or more at a time," Fraser said. "It adds up to a lifelong stimulus and frame of reference."

Senior Perry Whitecage said he was most impressed by architect Hans Scharoun's symphony hall in Berlin. In his ink-and-watercolor drawing, Whitecage captures light coming through a window and playing off the shadows of a primary stairway inside the hall.

"You don't see architecture like that over here," Whitecage said, noting that all the buildings the group studied were awe-inspiring. "It's very impressive that those types of artistic and innovative projects get built. They have the patronage to support them and much more freedom of design over there."

South Africa: 'Keep it simple'

In South Africa, the political change of the post-apartheid era, the challenges of a

third-world nation, the country's rapid urbanization and the interaction of many cultures create "a very rich laboratory" to study and practice architecture, Hoal said.

"There is a desperate need for development of educational, recreational and resource centers, as well as housing," Hoal said. "A lot of experimentation is occurring because the traditional building industry cannot build quickly and appropriately."

Marcus Moomey, a second-year graduate student, said portable outhouses made of inexpensive local materials are a prime example of South Africans adapting to rural site conditions and meeting basic building needs.

"The whole idea is to keep it simple," Moomey said, recalling a common spiral outhouse design with walls of sheet metal or plaster over laths. "It didn't require running water, didn't need a door, and the people could build it themselves. It was really ingenious."

At the end of the program, seven students stayed on for a five-day walking safari through the South African bush.

"We saw rhinos, wart hogs and buffalo. It was very humbling. You feel like man within the animal kingdom," recalled Dan Shaughnessy, who was completing his master's degree in architecture. "It was very peaceful and soul-searching being out there and hearing the lions roar."

— Ann Nicholson

For The Record

For The Record contains news about a wide variety of faculty, staff and student scholarly and professional activities.

Of note

Brian Bredeson, assistant director of the Career Center, was selected by Rotary District 6050 to participate on a Group Study Exchange Team that traveled to Norway last spring. Team members met with an international colleague in the host country to discuss how they approach their shared profession. They also shared personal knowledge of their own country and observed the customs, vocations and lifestyles of the host country. ...

John O. Holloszy, M.D., professor of medicine, received an \$841,669 five-year grant from the National Institute on Aging for a research project titled "Exercise as Preventive Medicine in the Aging Process." ...

Pui-Yan Kwok, M.D., assistant professor of medicine, received a \$904,108 three-year grant from the National Center for Human Genome Research for a research project titled "High Density Genetic Map of XQ25-XQ28." ...

L. David Sibley, Ph.D., assistant professor of molecular microbiology, received an \$891,150 four-year grant from the National Institute of Allergy and Infectious Diseases for a research project titled "Protein Secretion and Intracellular Survival by Toxoplasma."

Speaking of

Natalia V. Dronova, L.L.M., a J.S.D. candidate in the School of Law, spoke on "Transparency in Russian Local Governments: Possible Lessons From the U.S. 'Open Meeting' Laws" at the Swiss Institute of Comparative Law in Lausanne, where she spent three months in resi-

dence. Dronova also delivered a presentation on openness in government during a one-month stay at the Kennan Institute for Advanced Russian Studies in Washington, D.C. The Hague Academy of International Law in the Netherlands invited her to the Center for Studies and Research in International Law and International Relations this summer. ...

A trio of professors recently took part in a conference on the "Romanization of Athens" held at the University of Nebraska in Lincoln. **Robert Lamberton**, Ph.D., associate professor of classics in Arts and Sciences, spoke on "Plutarch and the Romanizations of Athens." **Susan Rotroff**, Ph.D., professor of classics, co-organized the conference and gave a lecture titled "From Greek to Roman in Athenian Ceramics." **Sarantis Symeonoglou**, Ph.D., professor of art history and archaeology in Arts and Sciences, participated as a session chair. ...

Gruia-Catalin Roman, Ph.D., professor of computer science and director of

the Computer Visualization Laboratory, presented an invited talk at the First International Workshop on Formal Methods for Parallel Programming. Titled "Formal Methods and Mobile Computing," the talk was given in conjunction with the 10th International Parallel Processing Symposium held in Honolulu.

On assignment

Daniel M. Goodenberger, M.D., assistant professor of medicine, recently was named to the Publications Committee of the Association of Professors of Medicine, which is responsible for publishing the American Journal of Medicine. Goodenberger also has become a panelist for the Muscular Dystrophy Association's "Ask the Experts" on "MDA on CompuServe."

To press

Jennifer Atkinson, a lecturer in English in Arts and Sciences, wrote two poems,

"Mirage" and "Storm Warning," that were included in the spring 1996 issue of Shenandoah, the Washington and Lee University Review. ...

Clayton R. Perry, M.D., associate professor of orthopaedic surgery and chief of the fracture service, authored the reference "Bone and Joint Infections" published by Martin Dunitz in London. Perry also wrote a solicited chapter titled "Knee and Leg: Bone Trauma" for the "Orthopaedic Knowledge Update 5," which is published by the American Academy of Orthopaedic Surgeons.

Guidelines for submitting copy:

Send your full name, complete title, department, phone number, and highest-earned degree, along with a typed description of your noteworthy activity, to For The Record, c/o David Moessner, Campus Box 1070, or p72245md@wuvmd.wustl.edu. Items must not exceed 75 words. For information, call Moessner at (314) 935-5293.

Obituaries

Norman Matulef, supervisor of students

Norman J. Matulef, Ph.D., a longtime supervisor of students in the Department of Psychology in Arts and Sciences, died Monday, Aug. 5, 1996, of heart disease at his home in University City. He was 67.

Born in Des Moines, Iowa, Matulef earned a bachelor's degree in journalism from the University of Iowa in Iowa City and a master's degree in clinical psychology from Iowa State University in Ames. He earned a doctorate in clinical psychology in 1967 from Washington University.

Matulef joined The Jewish Hospital of St. Louis as chief psychologist and director of psychology training in 1966. He taught part-time at Washington University as a lecturer in 1972 and as a clinical assistant professor in 1976 and has supervised students here since 1980. He entered private practice in 1975 but remained on the staff of The Jewish Hospital.

Matulef was a support leader for St. Louis Effort for AIDS and served on the AIDS Task Force and Jewish Federation.

Among the survivors are his wife, Carolyn Matulef; two sons, Mark Matulef of Washington state and Paul Matulef of New York state; and a sister, Judith Feldman of Chicago. Memorial contributions may be made to St. Louis Effort for AIDS, 1425 Hampton Ave., St. Louis, MO, 63139.

Arlen Morrison, instructor emeritus

Arlen E. Morrison, M.D., instructor emeritus in clinical medicine, died Monday, Aug. 5, 1996, in St. Louis. He was 64. Morrison retired July 1, 1993, after serving on the School of Medicine faculty for 31 years.



Pictured from left are Robert G. Allen, Kenneth E. Maag, Chancellor Mark S. Wrighton, Ph.D., Vera P. Johnson and Gloria W. White, vice chancellor for human resources. Allen, Maag and Johnson were the three retirees at an Aug. 20 luncheon who had the most years of service to Washington University.

University retirees honored for years of service

After working 33 years in the button-down world of budget and finance, Kenneth Maag has made at least one easy transition since his retirement from Washington University last November.

"I'm definitely getting used to not wearing a tie and a suit," Maag said with a chuckle.

Maag, formerly the director of budgeting and reporting at the School of Medicine, was one of about 50 recent retirees who were recognized for their service during an Aug. 20 luncheon at the Whittemore House. Chancellor Mark S. Wrighton, Ph.D., and Gloria W. White, vice chancellor for human resources, recognized the Hilltop Campus retirees.

Wrighton and S. Bruce Dowton, M.D. (Syd.), associate vice chancellor for medical affairs and associate dean for medical education, handled the recognition for those retiring from the School of Medicine. All the retirees received commemorative walnut plaques.

In remarks made to the retirees, Wrighton noted how the University had grown in stature during their length of service — which ranged from 10 to 42 years. "We are now among the top universities in the world," he said. "And it is people like you who have placed us in that very strong position. For those of us who have a few more years ahead before we retire, we have to pledge that we will

sustain the rate of improvement. That's a pledge that I will make to you personally, that you will be proud to say that you once worked at Washington University."

Wrighton concluded his remarks with a warm send-off. "As 'graduates,' all the best to you," he said. "Take some time to be with your families, to travel, to do the things you didn't have time for before. But continue to think favorably about Washington University and join us on those occasions that you would find enriching and fun."

Maag, who arrived at the University in 1963 as an auditor on the Hilltop, already is heeding Wrighton's advice.

"I've done some traveling, some house repair and some relaxing in the country," he said. "I've also been busy with the Kiwanis Club on some service projects, raising money for children."

Maag does look back with affection on his association with the University. "Everyone I know appreciates Washington University's end goals — education and, from the medical side, patient care and research.

"When you tell someone you retired from Washington University, there's a recognition of respect and admiration," he said.

In addition to Maag, the medical school retirees and their years of service are: Robert G. Allen, 26 years; Robert E. Ayers, 12 years; Truman A. Bailey, 15 years; Diane Ballard, 22 years;

Edward J. Bateman, 11 years; John W. Brewer, 11 years; Rose M. Cunningham, 12 years; Mary A. Dillingham, 20 years; Colleen A. Epstein, 14 years; George Featherson, 19 years; Geneva R. Feick, 16 years; Esther B. Fenderson, 21 years; John D. Frain, 11 years; Carol A. Fritz, 39 years; Lola Gatlin, 20 years; Charlotte Hanson, 28 years; Adolphus Hardy, 38 years; Eunice Henry, 28 years; Vera P. Johnson, 25 years; Delores J. Lemon, 12 years; Dorene P. McKenna, 17 years; Ann L. Miller, 10 years; Sandra J. Mosher, 16 years; Vera V. Murphy, 18 years; Van T. Nguyen, 14 years; Audrey A. Painter, 29 years; Clara L. Phillips, 21 years; Gladys M. Porter, 19 years; Victoria Smith, 42 years; Virginia R. Trent, 25 years; Mary A. Vogelgesang, 11 years; Arnold W. West, 19 years; and Jean H. Winschief, 15 years.

The Hilltop retirees and their years of service are: Arza E. Allison, 18 years; Sylvia M. Berhorst, 10 years; Richard W. Coles, 25 years; Thomas J. George, 16 years; Natalie B. Hasty, 19 years; Shirley Hillemann, 20 years; Leon W. Kemper, 16 years; Robert A. Lewis, 27 years; Richard M. Ludwig, 12 years; Kenneth L. Nabors, 32 years; Shirley M. Noah, 15 years; Marie F. Propst, 11 years; Charles D. Tate, 25 years; Randolph R. Vaughn, 12 years; Barbara R. Wilcox, 20 years; and David C. Wilmot, 10 years.

— David Moessner

Opportunities & personnel news

Hilltop Campus

The following is a partial list of positions available on the Hilltop Campus. Information regarding these and other positions may be obtained in the Office of Human Resources, Room 130 West Campus, or by calling (314) 935-5906.

Computer Systems Administrator 970013. *Center for the Application of Information Technology.* Requirements: bachelor's degree; high level of skill in debugging and troubleshooting system setup and software-installation problems; experience with DOS, Windows 95, NT and Netware; knowledge of UNIX, Netscape, HTML and JAVA or C desirable; punctuality; organizational skills; good work ethic; effective interpersonal communication skills. Application required.

Switchboard Operator 970025. *Telephone Services.* Requirements: high school graduate; ability to work with minimal supervision; excellent communication skills; excellent attendance record; punctuality. Schedule: part-time, 11 a.m.-10 p.m. weekends. Application required.

Administrative Assistant 970052. *School of Social Work.* Requirements: bachelor's degree; strong communication and interpersonal skills; ability to organize and work under pressure; knowledge of American Indian culture preferred. Application required.

Secretary II 970053. *Department of Romance Languages and Literatures.* Requirement: bachelor's degree. Responsibilities include assisting the editors of two journals published by the department; helping professors get manuscripts ready for publication; and helping with special projects

(conferences and lectures). Application required.

Instructional and Information Technology Specialist 970057. *Arts and Sciences Computing Center (ASCC).* Requirements: bachelor's degree; strong technical background; commitment to user support for development and management of ASCC instructional technology facilities and information services. Responsibilities include the design and management of the distance-learning classrooms, the technology-enhanced classrooms and the Arts and Sciences Webmaster and support of the school's electronic information initiatives. Application required.

Programmer/Analyst II 970060. *Computing and Communications.* Requirements: certificate or associate's degree; knowledge and experience with administrative data processing; excellent organizational and communication skills. Application required.

Analyst 970061. *Financial Planning.* Requirements: bachelor's degree; strong quantitative skills; analytical and writing skills; ability to organize complex data into clear presentations for senior management; relevant work experience preferred; ability to work effectively in micro- and main-frame computing environments; ability to work independently with minimal supervision; ability to develop and suggest new ideas and concepts; flexibility; ability to work on a team; ability to handle multiple tasks, work under pressure and meet demanding deadlines. Application required.

Assistant Director, Major Events and Special Projects 970062. *Office of Public Affairs.* Requirements: bachelor's degree with some experience in public affairs, including experience in events planning and management; willingness to work evenings and

weekends when necessary for events; good communication skills; ability to work well with a variety of campus constituencies; ability to network effectively with peers, managers, faculty, students, etc.; solid understanding of and commitment to highest public relations and events planning standards; commitment to work within the University's established organizational structure; commitment to higher education in general and to Washington University. Résumé required.

Medical Campus

The following is a partial list of positions available at the School of Medicine. Employees who are interested in submitting a transfer request should contact the Human Resources Department of the medical school at (314) 362-4920 to request an application. External candidates may call (314) 362-7195 for information regarding application procedures or may submit a résumé to the human resources office located at 4480 Clayton Ave., Campus Box 8002, St. Louis, MO, 63110. Please note that the medical school does not disclose salary information for vacancies, and the office strongly discourages inquiries to departments other than human resources. Job openings also may be reached via the World Wide Web at <http://@medicine.wustl.edu/wumshr>.

Laboratory Coordinator 960911-R. *Biochemistry.* Requirements: bachelor's degree in science preferred; mechanical aptitude. Responsibilities include providing the following for 21 research labs: limited scientific support; coordination of shared equipment maintenance and service contracts; renovations to physical plant; space utilization; and safety.

Systems Analyst I 970083-R. *Surgery.* Requirements: high school graduate or equivalent; knowledge of WordPerfect, Microsoft Office, Lotus 1-2-3, Schedule Plus and e-mail. Responsibilities include providing end-user support and training for departmental software on Macintosh/PC platforms.

Programmer Analyst II 970087-R. *Bone Marrow Transplant.* Requirements: bachelor's degree; experience with systems programming, database selection and establishment, and specialized program design; experience with networking/data communications, scientific and statistical programming, and MS/DOS preferred; superior interpersonal skills. Responsibilities include creating a new database for the

Bone Marrow Transplant Division. This includes recommending and creating a structure in which to organize data for clinical trials, providing statistical analysis and maintaining the database.

Planning Administrator 970124-R. *Psychiatry.* Requirements: bachelor's degree; master's degree in business administration or health administration preferred. Responsibilities include development of the WU Psychiatry Group Network, an integrated network of mental health providers serving the metropolitan St. Louis area; evaluation and negotiation of managed-care contracts; development and execution of advertising/marketing plans; preparation of annual budget; and development of a strategic plan.

Network Engineer 970166-R. *Genetics.* Requirements: bachelor's or master's degree in engineering or related discipline; experience managing UNIX workstations and TOP/IF, NIB and NOS networks; good organizational and communication skills; ability to work with research scientists and laboratory personnel. Responsibilities include leading the systems administration support for a high-profile, large-scale sequencing lab involved with the Human Genome Project; advanced network and systems administration for a large heterogeneous network (200-plus workstations and servers, primarily Sun and Macintosh), including hardware and software acquisition, installation, maintenance and troubleshooting.

Wyssession explores Earth's subsurface — from page 1

cauldron — is the rocky interface between the Earth's hard mantle and its liquid iron core. Of all the unseen regions of the Earth, the core-mantle boundary most resembles the Earth's surface in terms of chemical, fluid, thermal and liquid-solid interactions. The map of the core-mantle boundary will help geologists understand both how the Earth is evolving and how, from its dynamic inception 4.5 billion years ago, it is cooling off in space.

Geologists cannot literally see what's beneath the Earth. Instead, they are limited to remote sensing through seismic-wave analysis of the world's deep earthquakes. Combined with rapid and sophisticated computation, they can get images of structure and activity.

To get his map, Wyssession analyzed eight years of earthquake data, focusing on 543 digital diffracted P waves, which, of all seismic waves, spend most of their time and energy traveling around the core-mantle boundary. Seismic P waves travel through enormous slabs of rock in a domino effect — the way each metal link pushes the next in an extended, shaken Slinky. Diffraction works on the same principle that lets us hear sound around the corner of a building: The waves actually bend around a structure. Thus, they arrive at their destination muffled, though intact.

Diffracted P waves understandably present many analysis problems; consequently, deep-Earth geologists have avoided these kinds of waves, concentrating instead on more accessible waves and techniques to map the Earth's mantle. This has left much of the core-mantle boundary as unexplored territory for geologists, until Wyssession's efforts.

Wyssession published his results in the July 18 issue of *Nature*. His work was supported by a grant from the National Science Foundation.

The University seismologist solved the mapping problem by overlaying the seismograms of 543 diffracted P waves atop synthetically generated seismograms from a computer program. He then determined the difference in travel time between the diffracted P waves and accompanying PKP waves from the same earthquakes.

Unlike diffracted P waves, which bounce from an earthquake's hypocenter down 2,000 miles along the boundary, PKP waves go directly through the inner core of the Earth. By measuring the time differential between these two waves and using the synthetic model to eliminate discrepancies, Wyssession determined if the P waves traveled slow or fast around the core-mantle boundary. Slow velocities indicate older, hotter material; fast velocities indicate newer, cold material that has recently sunk through the mantle.

By plotting the results, he came up with a computer-generated two-dimensional map of the core-mantle boundary, a map that would have made 16th-century sea explorer Ferdinand Magellan proud.

"Think of the early maps of the New World," Wyssession said. "The continents all look funny; the shapes and details are

wrong, but their general outlines are correct. Still, even today, on these maps you can point out South America and North America and recognize them as continents.

"Well, we're at the same stage with subsurface continents as the 1600s explorers were with the surface continents. We know that this isn't the final map, that there are details to fill in. We're now working on a number of finer details, but because all we have to work with is earthquake data, we're limited to the areas of the Earth — primarily the South Pacific — where large earthquakes occur to give us the best data. The core-mantle boundary is very important to geology because it is a boundary between rock and fluids, where nearly all geological processes occur. Moreover, having this map will help give us a fuller understanding of how the rest of the Earth is connected to surface plate tectonics."

'Earth's great landfill'

The theory of plate tectonics is about 30 years old and is widely accepted in the geophysical community. It holds that the Earth's geological processes, from earthquakes and volcanoes to mountain building and continent formation, are the result of the slow movements of a dozen or so gigantic slabs that move over the asthenosphere, a molten region of the upper mantle. The motion of plate tectonics helps the Earth release heat. While plate tectonics is undisputed, geologists have at best only half the picture, Wyssession said.

"It wasn't until we mapped out all of the surface variations — the collisions between continents that formed mountain belts, valleys and rifts and the ocean floor — that the pieces fit together to form the theory of plate tectonics," he said. "But that is just the surface expression of this global motion. We won't see the other half of plate tectonics until we fully map the core-mantle boundary to find out the process for the whole Earth."

Wyssession's map lends credence to a prevailing notion that the core-mantle boundary is a sort of Davy Jones locker, geophysically speaking.

"It was suggested about 10 years ago that the core-mantle boundary is the 'graveyard' of subducted slabs," Wyssession said. "This map shows a strong correlation between the surface pattern of plate tectonics and the pattern of seismic velocities. The data show a strong correlation with a great period of subduction (where one plate dips beneath another) between 100 million and 200 million years ago."

That era saw the breakup of the super-continent Pangea. As it broke up, huge amounts of the ocean floor began to sink underneath the moving plates.

"That rock going into the mantle had to go someplace, and we see now where it went — all the way to the core," Wyssession said. "The map confirms that any residue of plate tectonics eventually makes it to the core-mantle boundary, which is the Earth's great landfill."

— Tony Fitzpatrick

Washington University issues guidelines for candidates, other political speakers

The following guidelines have been issued by Washington University for those interested in learning how the University's not-for-profit status is impacted by political speakers and candidate appearances:

The State of Missouri Charter that established Washington University requires that the University be politically neutral. The University is committed to the expression of a wide diversity of ideas and opinions and to discussion of those ideas and opinions. Consistent with these principles, the University encourages University organizations to sponsor speakers of varying ideas and opinions, subject to the University's obligations to maintain political neutrality and comply with applicable law.

Washington University also enjoys tax exempt status under Section 501(c)(3) of the Internal Revenue Code and is thus prohibited from participating or intervening, directly or indirectly, in any political campaign. Federal Election Commission regulations also place limitations on political activity at educational institutions.

It is important for all members of the University community to keep in mind certain standards applicable to appearances on campus by candidates, representatives of candidates, and other representatives of political parties or political action committees. University organizations hosting or sponsoring such events must comply with, and advise speakers and staff of, these guidelines:

- The University may not advocate the election or defeat of a particular candidate or political party or promote or encourage such advocacy by members of the audience. No person or group may use Washington University's name, letterhead or seal in such a manner or to solicit funds for or otherwise support or oppose any such campaign or cause. For example, any

student group engaged in partisan activity must make it clear that its members speak as individuals and not for the University.

- The University's mailing lists, communications infrastructure, photocopying and other services or funds may not be used in support of any candidate, campaign, political party, or political action committee.

- Admission to appearances must be open to the University community and, if the sponsoring organization chooses, the general public, without regard to the attendees' party affiliation or support of any particular candidate. Admission may not be controlled by speakers, campaign staff, or any other person or organization not affiliated with the University.

- The speaker's appearance must constitute a speech, question and answer session, or similar communication in an academic setting, and must not be conducted as a campaign rally or event.

- Certain facilities, including Graham Chapel, have specific requirements for use of the facilities. Sponsoring groups and speakers must comply with these requirements (and should consult *Bearings* and the facility's managers for details).

- No one may collect campaign or other political contributions from members of the audience. Neither the University nor University organizations may solicit, direct or control the making of such contributions.

- The University may allow representatives of the news media to be present during a speaker's appearance, but only if access is permitted in a politically neutral manner. Media coverage may not be directed or controlled by speakers, campaign staff, or any other person or organization not affiliated with the University. Sponsoring groups anticipating or seeking media coverage are responsible for contacting the Office of Public Affairs at 935-5230 in advance of any appearance.