Dramatic advance enables remote control of robots via Internet

Over the past five years, the Internet has grown to become the most recognizable lane on the Information Superhighway. Now engineers at Washington University have blazed a new trail that makes the Internet the Action Superhighway.

T.J. Tarn, Ph.D., professor of systems science and mathematics, is working on the leading edge of robotics technology, achieving remote control of robots via the Internet. In the first live demonstration of the new technology last spring, two engineers watched a robot on a video monitor. The robot in Tarn's laboratory performed a manufacturing task — picking up an object and placing it somewhere else. While picking up and moving an object is routine robotics work, avoiding the box and taking commands from a remote operator in real time over a crowded public network was extraordinary. Tarn presented a paper explaining the technical aspects of his accomplishment at the International Federation of Automatic Control Symposium on Robot Control this fall in Nantes, France.

The three-minute experiment at the IEEE Symposium on Robot Control was a test for a robot: It involved avoiding a box in its path to perform a manufacturing task — picking up an object and placing it somewhere else. While picking up and moving an object is routine robotics work, avoiding the box and taking commands from a remote operator in real time over a crowded public network was extraordinary. "The teleoperators' feat was a major step toward the beginning of robotics and a giant leap for telecommunications," Tarn said. "We have now the ability to provide expanded services to our students and faculty, utilizing an experienced company with a proven track record," Tarn said.

Tarn, who is at the forefront of robotics research, presented the nearly perfect demonstration of robotics control over the Internet to a distinguished audience at the IEEE Symposium. The event was a major step toward the beginning of robotics and a giant leap for telecommunications.

MetroLink to expand westward along north edge of campus

The board of the East-West Gateway Coordinating Council, a regional planning organization, has recommended building the so-called "north-of-the-park route" to expand the light-rail transportation system westward. That route — the least costly of four alternatives — will run along Millbrook Boulevard, connecting DeBalfire Avenue and downtown Clayton. Planners will seek input from the community when the design phase begins.

The route, which was favored by Washington University, would run along the northern edge of the Hilltop Campus on a right-of-way provided by the University. Residents of the areas surrounding the planned route, as well as representatives of St. Louis, St. Louis County, Clayton and University City, will have the chance to offer input about the extension's design.

"People will be allowed, through a series of public meetings, to voice their opinion," said Rose A. Windmiller, Washington University's assistant director of government and community relations. "Meeting dates have not been determined.

The design and preliminary engineering phase of the planned extension is expected to begin in late 1997 or early 1998. Among the design decisions to be made is whether the extension line will run at street level or below grade.

The design phase will take up two years, after which construction begins. The new route should be in operation in 2003-04.
Daniel E. Goldberg named director of Medical Scientist Training Program

D

aniel E. Goldberg, M.D., Ph.D., associate professor of medicine and of molecular microbiology, has been named director of the Medical Scientist Training Program (MSTP). The combined M.D./Ph.D. program is designed for students interested in careers in academic medicine. Goldberg graduated from the program.

“I can think of no finer scientist, physician and person to head this wonderful program,” said Jeffrey J. Gordon, M.D., Ph.D., the Alumni Professor and head of the Department of Molecular Biology and Pharmacology. Gordon directs the Division of Biology and Biomedical Sciences, which provides resources for the MSTP.

Started in 1946, the Washington University program is one of the oldest and largest in the nation, with a current enrollment of more than 200 students. More than 85 percent of MSTP graduates who have completed their residencies are actively involved in research programs at leading institutions.

“MSTP training is crucial to the future of biomedical research,” Goldberg said. “Therefore, it’s exciting to have the opportunity to make a difference in their training.”

Goldberg holds the Howard Hughes Medical Institute investigator in 1994 and received the Charles E. Culpeper Foundation Scholarship in Medical Science in 1992. His research focuses on the metabolic processes that enable the malaria parasite to thrive inside red blood cells. Malaria affects 500 million people around the world and kills nearly a million children each year.

Stuart A. Kornfeld, M.D., professor of medicine and of biochemistry and molecular biology has directed the MSTP program for the past six years of absolutely spectacular leadership by Dr. Kornfeld,” Gordon said. “We’re all grateful to him and his vision of the program at a time when the physical sciences-application of species in many academic medical centers. The program has a long tradition of outstanding leadership, Gordon added.


John Atkinson receives five-year grant for studies of key immune receptor

J

ohn P. Atkinson, M.D., professor of medicine and of molecular microbiology, has received a five-year $1.1 million grant from the National Institute of Allergic and Infectious Diseases.

Atkinson’s laboratory is determining structural features that allow a key immune receptor to interact with the complement system, a series of blood-borne proteins that help protect the body from infection. The laboratory’s long-term goal is to understand the role of complement and complement receptors in autoimmune diseases and in the tissue injury that occurs when blood begins to flow again after a blocked vessel has part of an attack or stroke.

In autoimmune disease, the body’s immune cells produce antibodies that attack healthy tissue. “Those antibodies activate complement, and complement receptors in tissue injuries that occur when those antibodies attack healthy tissue,” Atkinson said. The laboratory’s work may lead to development of a drug that inhibits complement function to curtail this undesirable action, he noted.

The researchers now will determine how the structural features of a complement receptor called CR1 affect function. Because nearly 65 percent of U.S. women have developed AIDS, which currently is the fourth leading cause of death among U.S. women ages 25 to 44, women make up the fastest growing segment of patients newly diagnosed with HIV.

Similar versions of the “Women Need to Know” campaign are running in other cities, including Boston and New Orleans.

Henry Hampton to give Homer G. Phillips lecture

H

enry Hampton, creator and executive producer of the PBS series “Eyes on the Prize,” will give the Homer G. Phillips Lecture at 8 p.m. Friday, Oct. 24, in the Eric P. Newman Education Center. Hampton is president and founder of Blackside Inc., and he also has written and directed documentaries including “The Great Depression,” “Malcolm X: Make It Plain,” “America’s War on Poverty” and “Breakthrough: The Changing Face of Science in America.”

The lecture series honors the historic Homer G. Phillips Hospital of St. Louis, which was a premier training ground for African-American medical professionals at a time when people of color were restricted from most medical training programs. Hampton’s topic will be “Dreams, Struggles, Community and the Pursuit of Excellence.”

Cocktails at 6 p.m. and dinner at 7 p.m. will precede the lecture. To make a dinner reservation, call 362-6854."

AIDS awareness campaign educates high-risk women

H

IV, the virus that causes AIDS, continues to strike women in the St. Louis area at an alarming rate, but AIDS experts here say many women still don’t appreciate the risk. Now, two local AIDS organizations, the Helena Hatch Special Care Center for Women at Washington University’s School of Medicine and Project ARK (AIDS Resources for Kids), are launching a multifaceted campaign to educate women about this serious threat. Project ARK is funded jointly by the medical school and Saint Louis University School of Medicine.

The “Women Need to Know” campaign will encourage women to get tested for HIV and to avoid risky behaviors. “We see an increasing number of women with HIV “We want women to understand that they are at risk and need to think about their actions,” said Karen Meredith, director of the Helena Hatch Center, a clinic that provides reproductive health care and counseling to women who have developed AIDS, which currently is the fourth leading cause of death among U.S. women ages 25 to 44. Women make up the fastest growing segment of patients newly diagnosed with HIV.

More than 450 women in the Missouri portion of the metropolitan area have been diagnosed with HIV since 1986. While researchers have yet to learn how to cure HIV, more than 30 percent to 50 percent.

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Owen Sexton: keeping vigil in paradise

Washington People

Tony Fitzpatrick

Owen Sexton, Ph.D., shown here with a small snake, has had a keen interest in reptiles since childhood.

10 turtles, eight lizards, four skinks, two vipers and 17 snakes.
That alone is enough to call it paradise for a reptile and amphibian specialist whose love of nature, especially snakes, was honed by his mother. She encouraged her son to keep snakes at home and, together with Sexton’s father and a neighbor, presented the young Sexton with a snake pit in the family backyard for his 12th birthday.

Sexton offers surprising diversity for a site so close to St. Louis. There are literally hundreds of species of flora and fauna in the Tyson domain, just minutes from the 16th largest metropolitan region in the nation. Prairie plants, such as wildflowers and tall grasses, are sprinkled in the grassy areas. Species of bird species maintain residence there, like the migratory songbirds, stop by during the spring and fall on their migratory treks. Foxes, coyotes, deer, turkeys and neots abound. The abundance of species includes 12 kinds of salamanders, 15 frogs and toads, 12 kinds of snails, and thousands of insects.

Hemingway book, Sexton went off exploring. The landscapes in the Hemingway short stories, particularly those with protagonist Nick Adams, who scholars suggest is a young Hemingway himself, would have been familiar to Sexton. “When you read Hemingway, you realize that nature plays an essential role in some of his best fiction,” Sexton said. “I think that we’re going to have to artificially reintroduce species into areas where they’ve been eliminated due to fragmentation to maintain biological diversity. At times, this will call for some controversial steps.”

When ecosystems—a 500-acre patch of woods, for instance—becomes fragmented through development, the species in those ecosystems suffer what is known as the “island effect.” Breeding and reproduction of species is limited to the genetic material found on the “island,” and the ecosystem suffers. Genetic diversity may be lost, and that may be a drastic shift in relationships among species. In the 1980s, Sexton reviewed a reintroduction problem at Tyson by bringing the wood frog. Ana sylvatica, back to St. Louis County after a decades-long disappearance. Records indicated that the wood frog was present in northern Missouri at the turn of the century but nearly absent in the state by 1980. In one of his most successful projects, Sexton introduced egg masses to an experimental pond at Tyson. After seven years, the population boomed and the wood frogs took hold at Tyson, boldly dispersing from the Tyson pond across 1.44 to Forest 44 where they are now abundant as well.

Dealing with abundant deer
The wood frogs were the first of one species Sexton currently confronts. More than 120 deer inhabit Tyson’s 2,500 acres. They are abundant because predators—bears, wolves and mountain lions—were extirpated long ago and natural regulation was lost. The deer are not a restore restoration conditions at Tyson, he must come to terms with deer overpopulation. Conservation models suggest that 46 to 60 deer per square meter for an area of that size.

Twice as many deer at Tyson pose a number of problems. The deer face an inadequate food supply, which undermines their health, ticks proliferate, posing the threat of Lyme Disease; and excessive deer prohibit the flourishing of other flora and fauna, driving out species that researchers want to study and establish.

Sexton, with the Missouri Department of Conservation, oversaw a deer survey conducted by helicopter over snow cover in early January 1997. He is planning another survey this winter to complement one that a private company will do with infrared cameras. He will then determine the best way to control the herd. He hopes the criteria and methodology for the deer survey will help others in suburban areas where deer populations have become troublesome. It would be one of several areas where Tyson Research Center can become a model for other metropolitan biological stations.

Another plan is to introduce fire to the Tyson prairies. “We’re developing a fire regime for the many prairies that, before European settlement, naturally prevented the invasion of woody plants and kept soils healthy,” Sexton said. Reflecting on Tyson, Sexton said: “We can lead the way in assessing the impacts of metropolitan areas on the environment.”

Sexton with a snake pit in the family backyard for his 12th birthday.
A 12, Sexton volunteered for the Army and was sent to Italy toward the end of World War II, serving 26 months. With the aid of the GI Bill, he received a bachelor’s degree in biology at Oberlin College in 1951, then a master’s and a doctorate in biology from the University of Michigan in 1954 and 1957, respectively. At Oberlin College, he met his wife, Pidge, mother of their four children and a noted Shakespearean scholar. Every summer the Sextons head to Stratford, Ontario, for a feast of Shakespeare and period plays.

It was in Michigan that Sexton deepened his appreciation for American novelist Ernest Hemingway. He was conducting research at the university’s PeLton Biological Station, in the northern part of the Lower peninsula near Horton’s Bay, which was the location of a Hemingway family summer home while the novelist was growing up. After a friend loaned him an early
**Calendar**

*Tuesday, Oct. 28*

*Wednesday, Oct. 29*

*Thursday, Oct. 30*
- 9 a.m.-5:30 p.m. School of Law/European Film Series. "The Far Side of the World." (Also Oct. 24 and 25, same time.) 309 Anheuser-Busch Hall. 935-6482.

*Friday, Oct. 31*

*Saturday, Oct. 25*

**Miscellany**

Registration open for the AIDS Clinical Trials Unit and MATEC-EC symposium. "NIH Principles and Guidelines for the Use of Antiretroviral Agents in HIV-infected Women and Children" (Oct. 30-31), sponsored by the Center for Infectious Diseases. For times, costs and to register, call 362-0488.

Registration open for the following Office of Continuing Education seminars: "Sleep Disorders Update" (Oct. 25), Eric P. Newman Education Center; "Maturing Gracefully: An Update on Menopause" (Oct. 24), Ritz-Carlton Hotel; and the annual "Symposium on Obstetrics and Gynecology" (Nov. 14-15), Eric P. Newman Education Center. For times, costs and to register, call 362-4991.

**Lectures**

**Friday, Oct. 24**
- 7 and 9 p.m. Filmboard Foreign/Classic Series. "Shine" (1996). (Also Oct. 25, same time, and Oct. 26, 7 p.m.) Cost: $3 first visit, $2 subsequent visits. Room 100 Brown Hall.


**Tuesday, Oct. 28**
- 6 p.m. Chinese Film Series. "Eat, Drink, Man, Woman." Room 219 S. Ridgley Hall.

**Friday, Oct. 31**
- 7 and 9 p.m. Filmboard Foreign/Classic Series. "Seven" (1995). (Also Nov. 1, same time, and Nov. 2, 7 p.m.) Cost: $3 first visit, $2 subsequent visits. Room 100 Brown Hall.

**Wednesday, Oct. 28**

**Friday, Oct. 30**

**Saturday, Oct. 31**
- 9 a.m. Georgia Tech Medical Sciences Bldg. 362-7072.

**Monday, Oct. 27**

**Tuesday, Oct. 28**

**Wednesday, Oct. 29**

**Thursday, Oct. 30**

**Friday, Oct. 31**

**Saturday, Oct. 31**

**Sunday, Nov. 1**
- 7:30 p.m. Black Arts and Sciences Festival. "Where We Stand: The State of Black Theatre in Higher Education." Sponsored by the Anso of Black Students, Friedman Lounge, Wol Center. 935-5994.

**Wednesday, Oct. 28**

**Thursday, Oct. 29**

**Wednesday, Oct. 29**

**Wednesday, Oct. 30**

**Thursday, Oct. 31**

**Friday, Oct. 31**

**Saturday, Nov. 1**
- 9:30 a.m. Health Fair '97. For times, costs and to register, call 362-0488.

**Midnight.** Filmboard Midnight Series. "The Shining" (1980). (Also Nov. 1, same time, and Nov. 2, 9:30-11 p.m.) Cost: $3 first visit, $2 subsequent visits. Room 100 Brown Hall.

**Tuesday, Oct. 28**

**Wednesday, Oct. 29**

**Thursday, Oct. 30**
- 9 a.m.-5:30 p.m. School of Law/European Film Series. "Beyond the Wall." Cost: $25 (WU faculty, staff and students may attend individual sessions for free.) Room 99 Architecture-Buch Hall. 935-6482.

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**Wednesday, Oct. 29**

**Friday, Oct. 31**

**Saturday, Oct. 25**
Ceramics expert Richard Kучa, editor of American Ceramics magazine, will give a lecture at 7:30 p.m. Wednesday, Oct. 29, as part of the School of Art Lecture Series. The lecture, titled "On the Elegiac and the Precocious: Two Theoretical Conceptions at the End of the 20th Century," is free and open to the public and will take place in the Gallery of Art, Steinberg Hall.

Kucha is one of the country's pre-eminent authorities in the field of ceramics. From 1974 to 1995, he was director of the Everson Museum of Art in Syracuse, N.Y., where he built the ceramics collection into one of the finest in the United States. In the 1960s, as curator of the Ceramic Collection, he assisted Walter P. Chrysler Jr., son of the automobile company's founder, in assembling one of the world's largest collections of art nouveau and art deco decorative objects and European and American glass for the Chrysler Museum, now located in Norfolk, Va.

In the early 1970s, as chief curator and acting director of the Santa Barbara Museum of Art, Kucha organized a number of innovative exhibitions of African, Indian, Mexican and contemporary international art. Kucha has broadened the scope of American Ceramics magazine, commissioning some of the world's best writers and art critics to write on ceramics. A member of the International Academy of Ceramics, he recently addressed the subject of contemporary ceramic sculpture at the end of the 20th century at conferences in Czeký Krumlov, Czech Republic, and Nagoya, Japan, and is currently working on a book about the subject.

For more information, call 935-6500.
Business school extends streak with new EMBA ranking

The John M. Olaf School of Business just extended its winning streak as Business Week, in its Oct. 20 issue, once again listed the school's master of business administration degree program for executives, known as the Executive MBA (EMBA) program, among the Top 20 in the United States. The listing is reported alphabetically, with no rank assigned.

This achievement, added to the most current ranking of the school's full-time MBA degree program at No. 16 and U.S. News and World Report's current ranking of the school's undergraduate program, at No. 17, means three business school program areas now rank in the top 20 nationally.

The listing's description of the business school not only mentions its executive MBA degree program, but also the master's degree programs for executives in manufacturing management, offered by the business school and the School of Engineering and Applied Science, and the business school's MBA degree program for executives in health services management, supported by the School of Medicine. The last ranking was published three years ago.

All these degree programs, as well as the school's nondegree custom programs for companies, emphasize leading-edge theory and thinking applied to real-world business problems within the degree executive format — weekend classes for about two years — allows executives to continue work while studying for a master's degree, usually with company support. The degree programs include opportunities for international study and management residencies, and all programs feature world-class teachers and researchers along with seasoned business executives.

"The long-range goal of the modeling is to develop criteria that can predict how the river and floodplain will react under different conditions," Niebur said. "If we can develop very accurate models, we can produce a tool that can be very helpful in studying the effects of flooding, the effects of levees versus wetlands, and the environmental stability of the area.

"But you have to be extremely careful with computer modeling. Solutions can be wrong even though at first glance they seem reasonable. We're being cautious and testing very carefully because we don't want to miss the models.

Niebur said initial results from the model show that one area of the floodplain, Jamestown Island, is rapidly eroding as the river turns around a tight curve. Without the levees in place there, the river is washing more and more of the floodplain at a surprising speed. New, rapidly growing willow saplings cover the floodplain at a surprising speed. New, rapidly growing willow saplings cover the wet lower areas, and cottonwood saplings plus grasses and forbs thrive in drier, sandy areas of the floodplain. He said the model, once perfected, also will be able to predict what kinds of vegetation will come back because the vegetation is controlled by topography and moisture.

"The model should predict where the vegetation will migrate over time by predicting where new channels will form," Niebur said.

While results are encouraging, the project is in its initial stages of a long-range modeling project. The Department of Earth and Planetary Sciences, Duke (Fuqua), Northwestern (Kellogg), Pennsylvania (Wharton), Purdue and UCLA (Anderson). The entire list is posted on Business Week Online (www.businessweek.com).

"We've delighted to have the quality of our degree executive programs recognized because that affirms our contribution to the business community as we help executives and their companies succeed," said Marcia K. Armstrong, Ph.D., associate dean and the Vernon W. Piper Director of Executive Programs. Armstrong has directed the school's executive programs since 1994.

The business school also was in Business Week's 1993 EMBA listing.

Artistic license

Screendrawn student-faculty interaction sparked fun at the second annual Faculty Associates Pictionary Tournament, held Oct. 14 in the Liggett Residence Hall front lounge. Five faculty members and more than 50 students took part in the event, which is part of the Faculty Associates gap-bridging program. The team representing Koenig 2, led by Andy A. Heugatter, lecturer in engineering and policy, placed first and won a pizza party for its floor.

Wetlands sustainability is goal of new Missouri River model

Earth and planetary scientists at Washington University have developed a three-dimensional, environmental-sustainability model for the floodplain of the Missouri River that could assist the investigation of these incidents are urged to call 935-5555. This release is provided as a public service to promote safety awareness on campus.

The Morgan Prize is a particularly prestigious honor in part because of its granting body: the American Mathematical Association of Colleges and Universities, the Mathematical Association of America (MAA) and the Society for Industrial and Applied Mathematicians (SIAM).

"This award goes to a young man who has shown leadership in the mathematics department," said Edward N. Wilson, Ph.D., professor and chair of the mathematics department.

"Three major professional societies for pure and applied mathematics sponsored the Morgan Prize. They are the American Mathematical Society (AMS), the Mathematical Association of America (MAA) and the Society for Industrial and Applied Mathematicians (SIAM)."
Introducing new faculty members

The following are among the new faculty members on the Hilltop Campus. Others will be introduced periodically in this space.

Phillip M. Freeman, Ph.D., assistant professor of classics in Arts and Sciences, joins the faculty from Boston University, where he was a National Endowment for the Humanities postdoctoral fellow for the last three years. Previously, he earned bachelor's and master's degrees in classics from the University of Virginia and spent a year at Harvard University in 1991 and a doctorate in classics from Harvard in 1994. Aside from Latin and Greek, he also teaches in the University's Text and Tradition Program, featuring works from Homer and Confucius to Beowulf and Dante. His research interests include ancient linguistics, comma-marked prose, literature, and obscure ancient languages such as Etruscan, Gaulish and Hitite. He currently is completing a book for the University of Texas titled "Ireland and the Classical World."

Sunita Parikh, Ph.D., assistant professor of political science in Arts and Sciences, arrives from Columbia University where she taught in political science since 1989 and in 1990 helped establish the Center for Race and Public Affairs since 1993. She earned three degrees from the University of California, Berkeley where she majored in political science and a master's in social sciences, and was later named a doctorate in political science in 1990. Her interests include comparative politics, international relations, international organizations and comparative methods. She has written on political factors in the development of new religious movements and organizations in the United States and India, and recently has been working on the institutional development of affirma-

Justin F. Kraner, assistant professor emeritus of clinical obstetrics and gynecology

Justin F. Kraner, M.D., assistant professor emeritus of clinical obstetrics and gynecology and a graduate of University City High School, served in the U.S. Army during World War II and obtained his medical degree from the University of Michigan Medical School in 1940. After three years as a U.S. Air Force captain and physician, he started an obstetrics and gynecology practice in St. Louis in 1945. In his career, he delivered more than 5,000 babies. “He was a wonderful physician who took the time to care for her patients. He just loved being an obstetrician," said James R. Schreiber, M.D., professor and head of obstetrics and gynecology.

Another son died of leukemia in 1992. A third son, James R. Schreiber, M.D., professor and head of obstetrics and gynecology, is a graduate of University City High School and served in the U.S. Army during World War II. He was also a staff physician at Barnes-Jewish Hospital and at St. Louis Children's Hospital.

Obituaries

Justin F. Kraner, M.D., assistant professor emeritus of clinical obstetrics and gynecology, died of a heart attack on a plane to Germany on Aug. 10, 1997. He was a faculty member at the University of Alabama at Birmingham since 1966 and served as a U.S. Air Force captain and physician during World War II and obtained his medical degree from the University of Michigan Medical School in 1940. After three years as a U.S. Air Force captain and physician, he started an obstetrics and gynecology practice in St. Louis in 1945. In his career, he delivered more than 5,000 babies. "He was a wonderful physician who took the time to care for her patients. He just loved being an obstetrician," said James R. Schreiber, M.D., professor and head of obstetrics and gynecology.

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J. Edward Corn Jr., who served as director of sports medicine at Washington University as a U.S. Air Force captain and physician during World War II and obtained his medical degree from the University of Michigan Medical School in 1940. After three years as a U.S. Air Force captain and physician, he started an obstetrics and gynecology practice in St. Louis in 1945. In his career, he delivered more than 5,000 babies. "He was a wonderful physician who took the time to care for her patients. He just loved being an obstetrician," said James R. Schreiber, M.D., professor and head of obstetrics and gynecology.

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W Club's Sports Hall of Fame opens doors to 10

Washington University's Sports Hall of Fame membership will grow to 73 this fall when seven women athletes, one former coach and two distinguished service recipients are admitted to the W Club's hall.

The induction ceremony will be honored Saturday, Oct. 25, at a noon luncheon in Rigley Hall's Holmes Lounge. Later that evening, they will be recognized at halftime of the Washington University-Vanderbilt (N.Y.) homecoming football game.

The inductees are:
- Joe Carena Sr. (men's soccer coach from 1959-1964). Founder and first coach of the Bears' men's soccer program, Carena guided the Bears to a share of the 1962 Big Seven Conference title which included a 10-1-1 mark in 1961. The only loss suffered by the '61 squad, which lost to West Virginia State in the National Tournament, came at the hands of St. Louis University. (He died in 1993)
- Dick Hopkins '61 (baseball/football): A two-sport athlete, Hopkins won Football All-American honors two seconds all-time in batting average (.367), fourth in triples (11) and fifth in runs batted in (45) in 1961. As a co-MVP his senior year, he helped the Bears notch a four-year record of 53-28, which included a 15-5 mark in 1961.
- Brooke (Horton) Knott '90 (volley-

The Design: A History of Ancient Greek Architecture

John H. Wilkes, Ph.D., professor of history and Latin American Studies, is the design of 19th-century Athens, examining the two priorities that governed its civic architecture were instrumental in forming the modern Greek nation's identity.

Health Fair '97 answers health, fitness questions

What is that blood pressure or cholesterol count? Do I need a flu shot? Why does everything hurt a little fuzzy? How much calcium do I need in my diet? Answers to these questions and many more can be found at Health Fair '97.

The event will take place from 9 a.m. to 4 p.m. Wednesday, Oct. 22, at the Mallinckrodt Center. Health and Counseling Service and Student Health Advisory Committee, Health Fair '97 will feature more than 20 educational stations — most of them free of charge.

Faculty Assistant 980122. School of Business, will be on hand to answer questions on how to transfer credits or get help with the student employment opportunities and are also available on the Internet. Washington University staff, you may want to look for the employees section at 935-3858. Staff members may have a complete benefits package program.

Help is needed. Ages 18-70. To enroll, call 669-1179.