St. Louis Dancers’ final performance honors Mertz

St. Louis Dancers and guest artists will present an evening of stimulating and theatrical modern dance and popular ragtime tunes in a gala farewell performance at 8 p.m. May 4 and 5 in Edison Theatre.

This is the 11-year-old company’s final performance in St. Louis. The weekend’s festivities include a reunion of former dance students and faculty to honor Arnoett Mertz, founder and artistic director of the company. Mertz also is a long-time chamber of dance in St. Louis, professor emeritus of dance at the University.

The program will feature guest appearances by Daniel Shapiro and Joanie Smith, an exciting young dance duo known for its “tongue-in-cheek” style, and ragtime pianist Steven Radeck.

Shapiro and Smith have performed with Murray Louis and Alwin Nikolais, touring internationally for more than 10 years. Their choreography is noted for its striking imagery and gentle wit.

The concert also will premiere a dance piece by company member Gale Ormiston, a former dancer with the Alwin Nikolais Dance Theatre and Washington University artist-in-residence in dance. Ormiston choreographed and composed the music for the piece, titled "Self Portrait."

Also to be performed are "Cerebral Rites," Mertz’s signature piece set to Philip Glass music; "The Dark Shore," by Michael Ballard Podoski, with music by Bartok; and a duet by renowned choreographer Murray Louis staged by Podoski, titled "Calligraphy For Martyns."

The second part of the program, titled "Forever Ragtime," will include "Seaside Rag" and "Charleston Rag," set to music by Scott Joplin. Radeck, a renowned ragtime and classical musician, will accompany the dancers and entertain the audience with popular ragtime tunes throughout the program’s second half.

Tickets are $12.95 for senior citizens and Washington University faculty, staff and students. For more information, call 880-6545.

Mammography van will visit Hilltop

Mallinckrodt Institute of Radiology’s Mammography Mobile will be on the Hilltop Campus from 8 a.m. to 5 p.m. Tuesday, May 3, to screen women over 35. The van, which can drive in the parking lot west of the Mallinckrodt Center, features the latest low-dose equipment sensitive enough to detect the first stages of breast cancer.

The cost of the procedure, which takes about 20 minutes, is $50. Payment by check or credit card is accepted; cash cannot be accepted.

The University Health Services

Inside: MEDICAL RECORD

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• Senior citizens pump up for muscle mass study. Page 6

Maps reveal extent of Madagascar deforestation

Maps derived from 1972 and 1985 Landsat satellite images and 40-year-old French aerial photographs provide the first historical proof of the dramatic effects of deforestation in Madagascar. The island nation, located off the east coast of Africa, is considered a jewel among the Earth’s ecosystems.

Since 1990, there has been a 50 percent loss of tropical rain forest in Madagascar. Forest loss between 1972 and 1985 averaged 428 square miles annually. Only 1 percent of the nation’s rain forest thought to have existed at the time of colonization some 1,500 years ago now is intact.

Tropical deforestation has a devastating environmental effect both locally and globally. Since the 19th century, global carbon dioxide levels have risen 30 percent, an increase primarily for charcoal use because the people cannot afford gas or electricity. A bag of charcoal costing roughly $2 in one bag will last a family of four about 70 days.

The maps also are valuable as a tool to monitor deforestation. Landsat images are already available for most of the earth’s tropical forests. Many of these images are nearly two decades old and thus provide a remarkable and yet, to date, essentially unused data base.

The study was funded by the Fulbright Scholars Program, the Missouri Botanical Garden, National Geographic Society, Pew Midstates Science and Math Consortium, Washington University and the World Wildlife Fund.

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"At the time, no one knew how much rain forest was left in Madagascar, or in the northeast in areas of low population and relatively high altitude," says Green. "Most of the remaining forest area in the country has simply been out of reach of the population.

Satellite mapping

The maps are highly valued by the science community because they are the only graphic documentation of deforestation in Madagascar showing a systematic and historical process at work. The Green-Sussman calculations show that roughly 14,700 square miles of rain forest were intact as of 1985, compared to 29,000 square miles in 1950. The eastern rain forest at the time of colonization in 500 A.D. is estimated to have extended over 43,200 square miles, according to Green.

"These previous studies were ambiguous over whether the deforestation rate is increasing or decreasing," notes Green. "Our study provides an example of how remote-sensing data can be used to map forest extent and to monitor deforestation. Landsat images are already available for most of the earth’s tropical forests. Many of these images are nearly two decades old and thus provide a remarkable and yet, to date, essentially unused data base."

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"We can see the rain forest disappearing before your very eyes," says the biological anthropologist, who, along with botanists at the Madagascar Botanical Garden, St. Louis conceived the idea five years ago to measure the rate of deforestation by studying satellite images.

"We have only a few years left in Madagas- car, and we wondered how it could be measured," he says. "I was introduced to Glen, who was working on a doctorate in earth and planetary sciences at Washington University. His interest in satellite imaging, interpretation of deforestation and forest conservation was a perfect match."

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Deforestation — continued from p. 1

Iowa. The negatives were produced from digital data obtained from satellites beamed down by microwave. Green assembled 38 of the negatives into mosaics on a one-to-one-million scale that stately reveal the decreased rain forest from 1950 to 1990.

Madagascar is home to approximately 200,000 species of life, which represents nearly five percent of the Earth’s total biodiversity — the various forms of plants and microorganisms that live on the planet. Though the evidence of deforestation, Madagascar broke away from mainland Africa at least 150 million years ago, and 50 million years was on its own pristine path of evolution, allowing the development of thousands of species that evolved uncontested from other more advanced species elsewhere. Among the more famous denizens unique to the island are four-square miles (it’s the fourth largest island in the world), are the lemurs, the oldest distinct relatives of primates, and many species of cactus-like plants from the Dasylirion genus, plus hundreds of lesser-known plants and microorganisms.

Collaborative efforts key
Sussman, who transferred her interest in the study of the 24 living species of lemurs — 14 are known to be extinct — has made key contributions to wildlife preservation in Madagascar. He was a catalyst when, with colleagues from Yale University and the University of Washington, in establishing the Vaza Mahafaly, a government-protected reserve, which opened in 1978. It is seen the collaborative nature of his work with Green as an essential element in the development of conservation biology.

"We’d like to see our study develop into a forum for others who are seeking to protect the world’s environment," he says. "When we began our work, I had no knowledge of mapping from satellite data, and I knew only a little about Madagascar. Now our knowledge is more inter-changeable. Sussman’s work is paramount to understanding ecological problems of the Third World.

17th-century Italian and German music is focus of meeting featuring concerts
The American Heinrich Schutz Society Conference will be held from 2 to 5 p.m. on Friday, April 27, and from 9 a.m. to 5 p.m. Saturday, April 28, in Brown Hall Lounge.

The conference, which includes panel discussions and paper presentations, will examine ‘Cross-Currents Between Italian and German Music in the Seventeenth Century,’ speakers represent Yale University, Case Western Reserve University, Washington University, Eastman School of Music, and the universities of Alabama, Illinois, Manhattan, and Champaign, Pittsburgh and Rochester.

A free concert by the University of Illinois and Washington University chamber choirs also will be presented 1:30 to 5 p.m. April 27 in the Lady of Lourdes Catholic Church, 7148 Forsyth Blvd.

A second free concert will be held 12:30 p.m. April 28 in Halmes Lounge. The program will feature music by Schutz and nine of his contemporaries, performed by tenor Bruce Carvell, harpsichordist Paul Harris, violinist Marsha Curtis, mezzo-soprano Tony Fitzpatrick, and the Rich Schutz Society, which promotes the performance and study of music by Schutz and his contemporaries.

Jeffrey Kurtzman, Ph.D., chair of the American Heinrich Schutz Society, which promotes the performance and study of music by Schutz and his contemporaries. The conference is free and open to the public, is sponsored by the Department of Music. For more information, call 889-5574.

Archives in danger
"All the world’s rain forests could have been mapped by the late ’70s, but there was a concentrated effort to do so," says Green. "There is still time to accomplish this, but we have to save the data in the archive, which is entirely stored on magnetic tape and deteriorating rapidly. Nearly half of the digital information I sought for my own map was inaccessible; the tapes were too old. This priceless archive can be saved if the data are transferred to compact discs.

Green and Sussman intend to continue their research on the deforestation of Madagascar by studying more Landsat images and applying three parameters — land use, population, and slope and percent of forest remaining — to predict trends for the next 35 years.

The deforestation of Madagascar is a low-priority study, compared to other ecosystems," Green says. "If there are changes in global warming predicted in the future, whole ecosystems may have to move hundreds of miles in the next century to survive. We’re hopeful the situation in Madagascar is not as bad as it could be. But to monitor the world’s health, we’ll continue to need visible sets of data for the next 35 years."

"We are being pressured to save Madagascar — a historical perspective valuable 50 to 100 years from now.

Tony Fitzpatrick

Van — continued from p. 1

and the Nonacademic Personnel Association have agreed to bring the mobile unit to campus.

To make an appointment, call 362-7311 by May 1. Walk-ins will be taken on a first-come, first-served basis during hours when the unit is on campus.

The MB, at the Washington University Medical Center, is a pioneer in radiology and diagnostic imaging. The van is staffed by experienced technologists from the University’s Department of Radiology.
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Phenobarbital, a drug that is prescribed for thousands of children to prevent convulsions, is ineffective and may be harmful. Examiners who have recently discovered, W. Edwin Dodson, M.D., professor of pediatrics and an Epilepsy Foundation of America (EFA) member, says, "Sudden withdrawal of anticonvulsant drugs can trigger seizures, including seizures that are harder than usual, are harder without assistance from his three partners, who are all studying abroad this semester. He's ready for the challenge. "This will be my fifth run," he says. "I'm a professional. There's no doubt I can do it."
Carolyn Sanford

Schenk crew: Transforming a litter-strewn vacant lot into a neighborhood garden spot was the aim of John M. Olin School of Business students who volunteered a recent Saturday to help with a "Community Garden Cleanup." First-year M.B.A. students (from left) Mary McGe, David Hart, Nancy Vickery and Amy Moore were among the Olin students who worked side-by-side with residents and other volunteers to get up a fresh trim of new sod and eventually plant the seeds for a vegetable and flower garden behind Ascension Episcopal Church, 90 Goodfellow Blvd. The program, sponsored by Earth Day 1992 St. Louis, the Missouri Public Interest Research Group (MPIRG), and by the University City Gardeners Association, provides residents of low-income neighborhoods a place to grow their own food. Olin took part in the program through its Voluntary Action Council, a student organization that encourages community service among business school students.

Going home – pack all their belongings in boxes or trunks. Additionally, Jaffe says his company's prices are based solely on the size of the items, rather than the customary weight and destination, which make other delivery service rates higher. "Basically we set our prices according to our costs. Our motive is to serve the students rather than build profits. We're just a student organization working for students."

In an effort to thank the students for their patronage, University Trucking has donated funds to Residential Life that provided a videocassette recorder for residents living in Shapley Hall. "Because the students showed faith in us, we wanted to do something for them," says Jaffe.

Throughout the process of running the company, the owners have developed a high level of business acumen and, in the process, also learned more about themselves. Jaffe became a partner in University Trucking as a freshman, during a time, by his own admission, he was "unsure about everything." But "running your own business builds character and self-confidence because you are taking care of other people. From placing advertising in Student Life, to coordinating moving schedules, I've learned how to make everyone happy," he says. He also has developed a knack for controlling or which occur in series."

This story appeared in the Feb. 8 New York Times and in 25 other major newspapers across the country.

Ninety percent of Vietnamese veterans gave up using drugs after coming home, according to research conducted by Lee N. Robinson, Ph.D., professor of psychiatry and sociology. The Feb. 19 issue of American used her findings as part of an article about drug addiction among young Americans and how authorities hope the concept of instant addiction. Roane Findings also are part of articles that appeared in the Indianapolis Star, Commentary Magazine and the National Review.

Sarah C.R. Elgin, Ph.D., professor of biology, was an invited speaker at the Lilly-UCLA symposium, "Transcriptional Control of Cell Growth," held at Keystone, Calif. She also recently presented the prestigious Lilly Lecture in Biochemistry at Michigan State University. In May she will take part in a symposium on cancer biology at the National Institute of Health in Bethesda, Md.

Jules B. Gerard, J.D., professor of law, has been appointed to the Missouri Advisory Committee to the U.S. Commission on Civil Rights. Jane Smith, assistant dean of University College, has been awarded a six-week Fulbright Grant to study "The Arbeit Identity" — a comparison of Egypt and Jordan. It includes a study of Egypt and Jordan in the face of modernization, political, economic and social unity and diversity addressed from a modern, sociological, historical perspective. Smith will study this summer in Cairo and will travel to Luxor, Valley of Kings, and through Sinai to Jordan. She will also concentrate her efforts on the work environment of both countries.

Michel M. Ter-Pogossian, Ph.D, professor of radiation sciences in Radiation Biology and head of the Division of Radiation Sciences at the Mallinckrodt Institute of Radiology, has been named the Amy Bowles Lawrence Distinguished Scientist in Research Medicine by the Donner Laboratory.

Ter-Pogossian was honored for his pioneering role in developing the use of cyclotron-produced radio-nuclides in biomedical research. The Donner Laboratory is a division of biology and medicine of the Lawrence Berkeley Laboratory at the University of California, Berkeley.

Have you done something noteworthy?

Have you presented a paper? Won an award? "I am now in business," says Bottle. "I am a junior in hotel and restaurant management and I have been elected as an officer of a professional organization for Washington University. I am in the hospitality industry and will help spread the good news. Contributions regarding food, wine and hotel activities are gladly accepted and encouraged. I have the time with my professional experience!"

Earned degree, current title and department along with a description of your activity at Notables, Campus Box 1764, by no later than 5 p.m. at WUVMC. Please include a phone number.

Other movers and shakers

University Trucking is one of two student-operated transporting companies on campus. The other is East Coast Express, which is owned and operated by Andy Clan, a junior in the business school. Chuck Cohen, a junior in political science and business, Adam Pogach, a junior in political science; and Pete San- ders, a senior in economics. They all staff the East Coast as well and are Beta Beta Tau fraternity brothers. Incorporated in the state of New Jersey, East Coast Express services 11 stops that include New York City, Scarsdale, N.Y.; Livingston and Paramus, N.J., and Philadelphia. The company's first operating season was spring 1989.

Tony Nowak, who works with both companies in his position as director of Residential Life, says, "I really respect what the two companies do. The marvelous service they provide exceeds that of any other commercial company because they're more convenient and eco-

There's no doubt I can do it."

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Equilibrium problems prevalent as people age

The apparently simple accident of falling down — you trip, you fall — is being revealed as the complex and serious problem it actually is by researchers at the School of Medicine. Not only do elements of the human balance system degrade with age, but with them goes the brain's ability to compensate for those changes, says balance expert Gary D. Paige, M.D., Ph.D. "Together, the decreases in capacity help explain why people fall more frequently as they age.

Paige's data indicate that a decline in the performance of the body's "guidance system," as he calls it, is universal. "Falling is a function of two factors: the propensity to fall and the opportunity to fall," he says. "Everybody seems to develop a degeneration of the balance system that leads to an increased propensity. Falling is a serious public health problem, especially in those aged 65 and older, when it gains epidemic proportions," according to Paige. Studies show that among the elderly, 25 to 50 percent experience a fall during the course of a year. Fully one quarter of all hospital admissions of patients aged 65 and older are directly attributable to falling, and more than 200,000 hip fractures result from falls each year in this country alone.

In his most recent research, Paige and his team investigated the vestibulo-ocular reflex, or VOR, a primitive and robust reflex that keeps the eyes steady on a target while the head moves. That reflex, a critical component of balance and orientation in space, most likely evolved as a survival mechanism to allow the head and body to move erratically while keeping a visual image steady on the retina, says Paige.

Coordinating information from the eyes and the vestibular organs located in the inner ear, the VOR directs the eyes to move a distance and direction equal and opposite to head movements, Paige explains. If the head moves unexpectedly to the right, the eyes move automatically to the left, maintaining a stable visual image. The VOR is sensitive enough to accommodate head movements as small as those imparted by a heart beat. Yet in normal circumstances, it is entirely transparent to our consciousness.

To witness it at work, try this test: extend a finger at arm's length and quickly move your head back and forth, keeping the stationary fingertip. The image will be maintained without blurring by a healthy VOR. Waving that finger rapidly back and forth while trying to follow it with your eye results in a blurred vision.

If the VOR were to be diminished or lost, a simple glance down at a coffee cup, hearing and vestibular systems, suggests that we may be able to develop appropriate treatments for falling. And when the chair moved at four cycles per second — the rapid oscillation that duplicates glancing back and forth — older subjects did even worse. Younger people still managed an adaptive increase of 22 percent, their more senior counterparts displayed only a one percent change.

"Using his system, Paige is capable of identifying those with premature VOR degeneration, as well as people who are likely to overcome the changes caused by aging and those who are not," says Robert Baloh, professor of neurology at the UCLA Medical School. "This work gets at the specific pathophysiology of falling. Earlier studies focused mostly on environ- mental accidents, but Paige is identifying the source and its relation to the problem. From the findings, suggestive factors that we may be able to develop appropriate treatments for falling. And when the chair moved at four cycles per second — the rapid oscillation that duplicates glancing back and forth — older subjects did even worse. Younger people still managed an adaptive increase of 22 percent, their more senior counterparts displayed only a one percent change.

Using his system, Paige is capable of identifying those with premature VOR degeneration, as well as people who are likely to overcome the changes caused by aging and those who are not. He is now exploring the value of using the glasses as a tool for quantifying clinical patients' adaptive capabilities.

When tumors interfere with nerve function from the ear, balance can be seriously impaired. Sometimes the appropriate surgery requires cutting the nerve. In those cases, patients must learn to adapt to a vestibular dysrhythmic system, suggests that we may be able to develop appropriate treatments for falling. And when the chair moved at four cycles per second — the rapid oscillation that duplicates glancing back and forth — older subjects did even worse. Younger people still managed an adaptive increase of 22 percent, their more senior counterparts displayed only a one percent change.

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First U.S. case

Rare fungus causes sinus infection

Physicians at the School of Medicine have reported the first case in the United States of a sinus infection caused by a fungus rarely seen in humans.

The unusual case was presented recently during a poster session at the American Academy of Allergy and Immunology's annual meeting in Baltimore.

The fungus, Sinus Zygomycosis, is a chronic inflammation of the sinuses caused by a fungus called Conididiobolus incongruus. Although it has been found in horses, the fungus has been reported only twice before in humans. It is also known to cause respiratory infections in at-risk animals such as horses and cattle, according to researchers.

In a 20-year-old Caucasian male who had a history of allergies and chronic sinusitis, the fungus was found to cause the infection after a fungal medication was prescribed for the infection. The fungus, which is rare in humans, was not recognized as a cause of the infection. The patient was eventually treated with a regimen of antifungal agents, and the infection cleared.

Rosalind Kornfeld received her M.D. from the National Cancer Institute, part of the National Institutes of Health, totals for her work and has served in various editorial capacities for such journals as Environmental Research, Occupational therapy Linda Hunt issues a beach ball to a participant in the Memory and Aging Exercise Program.
Jeffrey I. Gordon, M.D., a physician and biochemist at the School of Medicine, has been selected to receive the 1990 Young Investigator Award from the American Federation for Clinical Research.

The award, which includes a $20,000 prize, will be presented at the organization’s national meeting May 4-7 in Washington, D.C. In addition Gordon, a principle investigator in human genetics, biochemistry and of boiochemistry and molecular biophysics, will present his work at the APCR plenary session.

For the last eight years he has studied the family of lipid-binding proteins and their genes, using a variety of methods. His lab was the first to use transgenic, or genetically engineered mice to study how the genes work and produce the proteins expressed in different intestinal cells and in different regions of the intestine. These experiments have shed light on the mechanisms which allow the intestine to acquire different functions in its different parts and how intestinal cells differentiate. Using one of these techniques, Gordon has also recognized that a rare naturally occurring fatty acid, myristic acid, may affect other pathologic states (e.g. cancer).

The new compounds resemble myristic acid, a rare, naturally occurring fatty acid that apparently must be present in order for viruses, including the AIDS virus, to replicate. The enzyme N-myristoyltransferase links myristic acid to specific proteins and their genes, using a variety of methods. His lab was the first to use transgenic, or genetically engineered mice to study how the genes work and produce the proteins expressed in different intestinal cells and in different regions of the intestine.

Among people over age 75, more than 52 percent are unable to climb stairs, 40 percent are unable to walk two blocks and 22 percent cannot lift 10 pounds. In her lab, Yarasheski is looking at the cost of aging. People who may be losing muscle mass and function, "they need with the establishment of a chapter of the Obsessive Compulsive Foundation Support Group at the School of Medicine.

OCD, which affects about 5 percent of the population, is characterized by repetitive, unwanted and unpleasant thoughts or/and repetitive ritualistic behaviors. OCD sufferers know their obsessions and compulsions are irrational or excessive, yet find they have little or no control over them. Typical obsessions are with dirt, germs and contamination or an ideation of contamination with dirt, or arrangements and symmetry. Typical compulsions include excessive hand washing, cleaning, hoarding and touching.

The meetings began April 25 and will be held weekly at 7 p.m. on Wednesdays, in room 15400C, conference room A, on the 15th floor of the Barnes Hospital East Pavilion. For more information, call 362-2459.

Kevin Yarasheski, Ph.D., research instructor in medicine, is conducting the project and says its purpose is to demonstrate to elderly men and women that they can adapt to weight-training exercise by increasing their muscle mass, and as a result, gain muscular strength that can be used to assist them in performing routine tasks that may have become difficult with age. A secondary purpose, done in collaboration with Dennis Bier, M.D., director of endocrinology and metabolism, is to determine if other muscle-sparing effects of exercise that may also reduce the age-related decline in muscle mass.

In just 14 weeks, Russell, 67, lost 15 pounds of body fat and gained 18 pounds of lean tissue. His skin folds, another measurement of body fat, also decreased 27 percent. Tunniflfs, 65, has also had positive physical results and says he feels better just knowing he's doing something for his health.

Kevin Yarasheski, Ph.D., monitors Clarence Tunnniff's workload.

New compulsive disorder support group

Persons suffering from obsessive compulsive disorder (OCD) and their families can now receive the support they need with the establishment of a chapter of the Obsessive Compulsive Foundation Support Group at the School of Medicine.

OCD, which affects about 5 million people in the United States, is characterized by recurrent, unwanted and unpleasant thoughts and/or repetitive ritualistic behaviors. OCD sufferers know their obsessions and compulsions are irrational or excessive, yet find they have little or no control over them. Typical obsessions are with dirt, germs and contamination or an ideation of contamination with dirt, or arrangements and symmetry. Typical compulsions include excessive hand washing, cleaning, hoarding and touching.

The meetings began April 25 and will be held weekly at 7 p.m. on Wednesdays, in room 15400C, conference room A, on the 15th floor of the Barnes Hospital East Pavilion. For more information, call 362-2459.
University is committed to drug-free workplace

In order to continue receiving federal grants and contracts, Washington University must certify that it conforms with federal standards for a drug-free environment. A copy of the certification form is reprinted here. You will note that the University must:

a) Publish a policy statement and make certain that all individuals engaged in grant or contract work have a copy. The statement, which has been approved by both the Senate Council and the Executive Faculty, appears below.

b) Establish a drug-free awareness program. Information is included in the FY-89 certification.

c) Institute appropriate sanctions against individuals convicted of violating drug laws.

d) Expand counseling and rehabilitation programs available to the University community. Information about counseling and rehabilitation programs may be obtained as follows:

Students, University Health Services, 889-6666; Hilltop Campus, Personnel Office, 12th North Brookings Hall, Box 1184, 889-5990; Medical School, Lisa Poor, Dean's Office, Box 8106, 362-8540; or Dental School, Dr. Thomas Schill, Box 8100, 544-0990

Approved by Executive Faculty on 12/7/88; approved by Senate Council on 1/20/89.

FY-89 Certification Regarding Drug-Free Workplace Requirements

The certification set out below is a material representation of the grantee's workplace and specifying the actions that will be taken against employees who the agency determines to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a).

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(2) The importance of the workplace in the community.
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**LETTURES**

**Thursday, April 26**
2:30 p.m. Dept. of Mechanical Engineering Colloquium, "Boundary-layer Recuperativity to External Ducts/Flow," R.W. Whitten, McDonnell Douglas Research Laboratories, Room 100 Cupples B.

**5:30 p.m. Assembly Series Lecture** by Jorge P. Perez. "From big brother to big sister: experiences and challenges of the Institute of Policy Analysis, Moscow. Women's Bldg. Lounge. For more information, call 889-5574.

**Friday, April 27**
Noon. Dept. of Cell Biology and Physiology Seminar, "Transmembrane G-Protein Receptors," David Peterson, WU assoc. prof. of pediatrics, Cell Biology Library, Room 404A, South Bldg.


**4 p.m. Dept. of Medical Analysis Seminar, "Thrombin's Capacitor for Circle Packings in Non-hexagonal Case," Ken Stephenson, Dept. of Mathematics, U. of Tennessee. Room 199 Cupples B.

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**Monday, April 30**

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**Tuesday, May 1**

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**Wednesday, May 2**

**4 p.m. Assembly Series Lecture** by anthropologists James Fergus and John McCallum, "Harvest of Violence: Guatemala," Graham Chapel. For ticket info., call 889-5574.

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**Thursday, May 3**


**4:30 p.m. Dept. of Mathematics Colloquium, "Elementary Polynomials over Finite Fields," Bruce Berndt, Dept. of Mathematics, U. of Illinois. Level 5. 8:30 a.m.-5 p.m. weekdays.

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**Friday, May 4**


**4 and 8:30 p.m. Washington University Association Travel Lecture Series, "Sea Link," "Mystic Isle of Geyser," George Lange, fellow, Explorer's Club, Graham Chapel. For ticket info., call 889-5122.

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**PLAYWRITING**

**Thursday, April 26**
8 p.m. Performing Arts Dept. Presents "Had Momena Left a Lullaby...", a play by R. J. Watson, writer of WU's A.E. Hotchner Playwriting Festival Award, (April 27 and 28, same time) Mildred Krupnik. Graham Chapel.

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**Friday, April 27**
8 p.m. Edison Theatre "OVATIONS!" Series Presents Dancer Susan Marshall & Company. (Also Sat., April 28, at 7 p.m.) Edison Theater. Cost: $10 for general public; $5 for seniors and WU faculty and staff. For more info., call 889-6454.

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**Saturday, May 5**

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**Saturday, April 28**
7:30 p.m. Dept. of Music Presents a Concert of German and Italian Music of the 17th Century. The concert will feature the U. of Illinois Chamber Choir, Chester Alves, and the WU Chamber Choral, Janet Krupnik, conductor. Our Lady of Lourdes Catholic Church, 7240 Paradise Blvd. For more info., call 889-5977.

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**Sunday, April 29**
8 p.m. Dept. of Music Presents a Concert of Indian Music, featuring S. Shashidhar on saron and Nageshwar Shastri on violin, two professors at Bangalore College, India. Tickets $50 (will take credit card or check; no cash). Appointments must be made by May 29, at 9:30 p.m.) On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for a double feature price of $3; both Sun. films can be seen for $3. Brown Hall.

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**SUMMER FESTIVAL**

**Saturday, April 28**
10 a.m. Men's and Women's Outdoor Track. WU vs. DePauw U. 9:30 a.m.. Sun. Times Center. 10:30 a.m.. Men's Tennis. WU vs. Harris-Stowe State College. Kelly Beauchamp Field. May Aud., Simon Hall.

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**Monday, May 4**
3 p.m. Men's and Women's Outdoor Track. WU Qualifying Meet. Bixby Hall.

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**FILMS**

**Thursday, April 27**
7 p.m. Filmboard Series, "Body Heat." (Also Sat., April 28, same time, and Sun., April 29, at 8 p.m.) 100 WU Aud. Dept. of Music.

**Friday, April 27**
7:30 p.m. Filmboard Series, "You Can't Take It with You." (Also Fri., May 1, same time, and Sat., May 2, at 8 p.m.) 100 WU Aud. Dept. of Music.

**Saturday, April 28**

**Sunday, April 29**
7 and 9 p.m. Filmboard Series, "Le Plaisir." (Also Thurs., May 3, same times.) $2. Brown.

**Monday, May 4**
7 and 9:30 p.m. Filmboard Series, "Husbands." (Also Mon., May 3, same time, and Sun., May 6, at 7:30 p.m.) 100 WU Aud. Dept. of Music.

**Wednesday, May 2**
7:30 and 9:30 p.m. Filmboard Series, "La Fiancée." (Also Sat., May 5, same time.) $2. Brown.

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**MISCELLANY**

**Thursday, April 26**
4:30-6 p.m. Spring Break Film Series, "Fast Times at Ridgemont High." (Also Sat., May 5, same time.) $3. Filmboard Series.

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**Friday, April 27**
11:30 a.m. WU Women's Club Annual Meeting and Spring Luncheon, Sunset West, Clayton Center, at corner of Clayton and Kehrs Mill roads. Cost: $12 for members and guests. Reservations, call 721-1053 or 230-4809.

**Friday, May 4**
2 p.m. Men's Tennis. WU vs. DePauw U. Tan Tennis Courts. 3 p.m. Women's Tennis. WU vs. Harris-Stowe State College. Kelly Beauchamp Field.

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**Calendar Deadline**

The deadline to submit items for May 1-12 calendar of the Washington University Record in April 21. Forms may be typed and neatly typed, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and identifying title or name and telephone number. Send items to Andrew Gun, calendar editor, or by electronic mail to 71224@acm.wsumc.edu.