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**Thurtene Carnival**, the largest and oldest student-run carnival in the nation, provides entertainment for young and old alike. This year's event will be held from 11 a.m. to 8 p.m. April 20 and 21 on the campus parking lot at Millbrook and Skinker boulevards.

## 'Great family entertainment'

### Thurtene Carnival set for April 20-21

The Thurtene Carnival countdown has begun.

Across the campus, Washington University students are busy constructing food and game booths as well as rehearsing skits that will be performed behind seven facades. Members of 30 diverse student groups are participating in Thurtene Carnival, the largest and oldest student-run carnival in the nation. The result of the students' work will be showcased from 11 a.m. to 8 p.m. April 20 and 21, when the carnival is held on the campus parking lot at the corner of Millbrook and Skinker boulevards. There is no admission fee to the carnival grounds.

Partly in accordance with the mystery surrounding the entertainment that is presented behind the facades, this year's carnival theme is "Live the Unexpected." Net proceeds from the rides and game and food booths will go to Childhaven, which specializes in treating communication and behavior disorders in children, offering support to their families and providing educational programs to the general public. Representatives and children from Childhaven will attend the event.

In honor of Thurtene Carnival, which organizers say is expected to attract more than 100,000 people, Gov. John D. Ashcroft has proclaimed April 15-21 as "Thurtene Carnival Week" in Missouri.

Jeff Maltz, president of Thurtene, the junior honorary that sponsors the festivities, is confident that the carnival will be a great success. "The students have been working for months and months to present the St. Louis and Washington University communities with great family entertainment," he says.

Thurtene Carnival will feature 18 rides for both adults and children and more than 20 games, including such offerings as billiards for bucks, pie throwing and watermelon seed spitting. Ted Drewes frozen custard, Korean food, shish kebabs and toasted ravioli will be among the numerous edibles for sale.

Weather permitting, a 120-foot high multicolored hot air balloon will be on display. Bugs Bunny and Daffy Duck, the Six Flags Looney Tunes (TM) characters, will be on hand to entertain the children.

In conjunction with the carnival, the Thurtene honorary is sponsoring a

*Continued on p. 2*

## Lying molecules, cheating hearts

### Deception occurs throughout nature, transcends species

Deception may be as old as the hills, but if you think it all started with Adam, Eve and a serpent, you're deceiving yourself, says Ursula W. Goodenough, Ph.D., professor of biology.

So, just how long has this been going on?

"Deception between species probably has been around since the first predator/prey relationships were established, and it continues today in particularly active forms in the war being waged between the mammalian immune system and microbial pathogens (viruses or bacteria)," says Goodenough. "Those pathogens extant have not been eliminated by immune systems. Numerous pathogens operate by deception. Given enough evolutionary time, the immune system might well come up with some defenses to thwart them, but meanwhile we must understand their deceptive ways and figure out how to outsmart them."

Deception occurs throughout nature and transcends species, says Goodenough. Whether a cheating heart or a lying molecule, the concept is similar in many ways. The biologist says cells, like humans, are capable of the White Lie, the Black Lie and the Big Lie, although cells are much less scheming than humans in their manners of deception.

And as Robert Sussman, Ph.D., professor of anthropology and a noted primatologist has found, humans are the only species capable of self-deception.

"All animals are able to think and many can use tools. What sets human beings apart is our ability to deceive ourselves," asserts Sussman.

Goodenough and Sussman and his graduate student Thad Q. Bartlett presented papers at "The Evolution of Deception: A Biocultural Approach" symposium held during the recent American Association for the Advancement of Science Annual Meeting in Washington, D.C. The symposium, comprising scientists and scholars from four institutions, was the first

ever to examine deception as it applies to biological processes, evolution, psychology and philosophy.

#### Cellular deceit

In the paper she presented, Goodenough says that the basic paradigm, or example, of molecular deception is the parasitic relationship of viruses and their hosts.

"A White Lie occurs when a pathogen invades a cell, replicates itself and departs the host, leaving it none the worse off," she says. "The Black Lie parasite deceives a cell and kills it. The Big Lie occurs repeatedly at the cellular level in symbiosis, the mutually beneficial life-pact between two dissimilar organisms. This Big Lie starts out as an enormous deception, where an invading foreign cell tricks a host cell into thinking they belong together. Originally the host probably launches an attempt to get rid of the invader, but as it turns out the two co-exist and the host no longer tries to repel the parasite."

Goodenough says deception occurs where a discrepancy between appearance and reality can be attributed to the causal influence of one organism on another. The deceiver, "A," is the organism that contributes to the ignorance or delusion of another organism, "B." Self-deception occurs where A and B are the same. While humans are the only species capable of deceiving themselves, deception, says Goodenough, is rampant throughout nature, as common in molecules as it is in humans.

The major deceptive strategy pathogens employ is the use of a shared receptor with the host organism. Receptor is a generic term for the proteins displayed on cell surfaces that detect stimuli in the environment. Detection occurs when receptors interact with whatever stimulates them — they may interact with light, as visual receptors, or other proteins, such as hormones. All cells have an abundance of receptors looking for normal signals from the environment. Pathogens take advantage of this arrangement to bind to receptors and

trigger a response that is in the interest of the pathogen.

Goodenough cites three major types of molecular deceptions: those that use deception techniques to bind to the host receptor cells; those that hide from the immune system; and those that switch antigens, or surface-displaying proteins, to confuse the immune system.

Deception at the molecular level, reminds Goodenough, is an adaptive process.

"Unlike the notion of Satan deceiving humans into sin, molecular deception is not inherently evil," she says. "But, on a larger scale, deceptions throughout our culture and in nature operate much like viruses. A Bart Simpson commercial acts upon the same premise as a virus deceiving the immune system."

#### Deception in primates

Sussman, co-director of the Beza Mahafaly Reserve in Madagascar, and graduate student Bartlett reviewed the deceptive strategies of primates and compared them to those of other species, including humans. "In the fossil record, the tools of Homo Erectus show very little variability. Then all of a sudden you get variations on tools, burials, effigies, art — things with no practical use. It is the first time you can say humans are symbolizing. I say that at this point you get self-deception — they are creating worlds that don't exist."

All species deceive, Sussman and his colleagues note. The moth that perfectly mimics a green quivering leaf uses a genetically determined deceptive strategy to hide on the limb of a tree. And the chimpanzee that leads its peers away from a hidden cache of food also weaves that tangled web we know as deception.

But, at what point does deception cease to be morphological, or involuntary, as in the case of the moth, and begin to become voluntary and conscious, as in the case of the chimpanzee? Is the ability to consciously deceive a function of intelli-

*Continued on p. 2*

## Shuttle encouraged

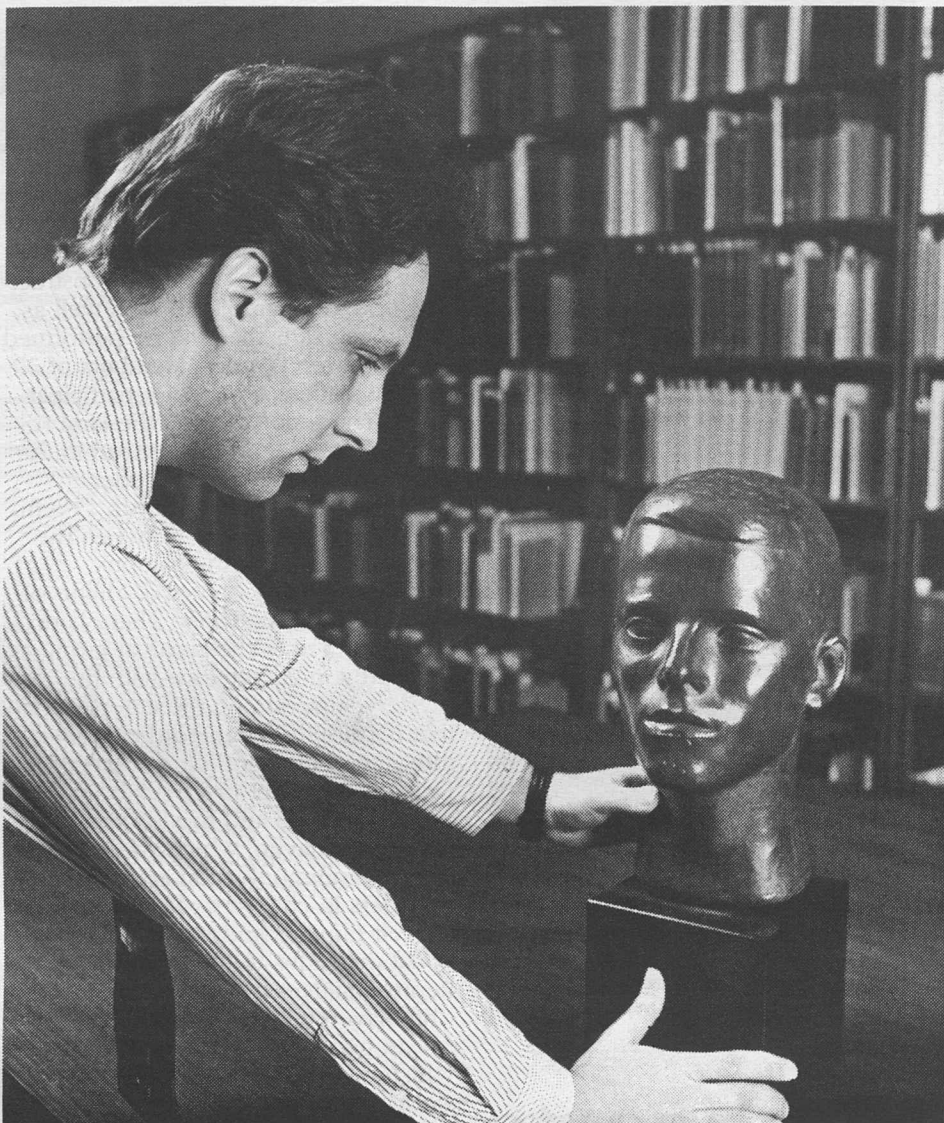
Along with food, fun and frolic, Thurtene Carnival also will mean a temporary loss of 600 parking spaces when the parking lot at the corner of Millbrook and Skinker boulevards is closed April 15-23, according to Gary Sparks, director of the Transportation Department.

To help alleviate traffic woes that week, Sparks encourages drivers with permits to use the University's shuttle parking location at the Arena, 5700 Oakland Ave.

The Arena shuttles run Monday through Friday from 7:30 a.m. to 6 p.m. The shuttles run continuously from the Arena between 7:30 and 10:30 a.m. and 3 to 6 p.m., picking up and dropping off passengers at all Forsyth Boulevard driveway entrances to campus. Between 10:30 a.m. and 3 p.m. the shuttles leave the Arena at a quarter to and a quarter after the hour and leave campus from the front of Brookings Hall each half hour and hour.

For more information, call the Transportation Department at 889-5601.





**Poet in residence:** Kevin Ray, curator of manuscripts for Olin Library's Special Collections, examines a sculpted portrait bust of the prize-winning American poet James Merrill. The poet's mother, Hellen Plummer of Atlanta, Ga., recently donated the bust by artist Guitou Knoop to Special Collections. The bust, completed in 1954, is a black patinated spelter sculpture secured atop a black marble plint. The library has collected Merrill's work since 1964 as part of its Modern Literature Collection, which also includes the papers of American poet May Swenson.

#### Just in case

## Tornado drill helps prepare emergency team for disaster

*This is a drill. This is only a drill.*

A tornado is scheduled to hit Brown Hall at 9 a.m. Sunday, April 14, summoning the Washington University Emergency Support Team (WUEST) and the Clayton fire and police departments.

Planned by the WUEST Disaster Committee, the annual drill is conducted by the 34 student members of WUEST to increase their preparedness in handling mass casualty incidents. According to disaster committee co-chair Craig H. Gerstein, "These exercises allow us to improve our skills and knowledge in responding to disasters ... such drills also allow evaluation of the WUEST response procedures and coordination of the WUEST efforts with local and regional emergency medical services."

Approximately 35 volunteer patients will be treated at the site. Some of the tornado victims will be actors from the Performing Arts Department's production of "Othello." Gerstein said the "injured" actors will portray the sense of panic that is often present at the disaster scene. Although the emergency support team will not administer oxygen to the victims, the injuries will be treated as realistically as possible with splints and bandages.

Unlike the "disasters" of previous years, the tornado will not come as a surprise to the team or the community. This year it was decided that the experience and motions of the drill are more important than the element of surprise.

The usual WUEST procedures will be followed. Three on-duty members will be paged to Brown Hall. While two of the members prepare to treat

the disaster victims, the third member will start a phone chain summoning other members to the scene.

An expert from the State Emergency Management Agency will evaluate the drill. The evaluation report will measure the team's competency during the drill.

In order to further improve the competency of the emergency support team, an Emergency Operations Planning Committee was formed this year. The committee's objective is to help coordinate the various networks on campus, including the Campus Police, Residential Life and Health Services, and in those in the surrounding community to more effectively handle a disaster.

Although some members of the community have been invited by WUEST to observe the drill, the general public is not encouraged to be at the disaster site because of the potential dangers of emergency vehicles and to allow sufficient space for emergency personnel.

All members of WUEST are either licensed as emergency medical technicians in the state of Missouri or licensed in cardiopulmonary resuscitation and standard first aid.

The University is in the process of purchasing more medical equipment for the team. "The University has been very gracious in the equipment we have," said Gerstein. The team is equipped with an emergency vehicle, oxygen tanks, burn kits and soft supplies such as splints and gauze. Gerstein said the team even carries OB/GYN kits for handling births. "Baby not included," Gerstein added, laughing.

—Jessica Spain

## Deception — continued from p. 1

gence? Finally, at what point does the ability to deceive others evolve into the ability to deceive oneself — if, indeed, the two thought processes are related?

As Sussman and Bartlett studied deception in primates and began to analyze its role in the evolution of intelligence, they found two interesting patterns emerging. First, voluntary conscious deception seems to be common in primates. Second, self-deception seems to be unique to humans.

Sussman says that primates exhibit several types of increasingly complex deception. First, there are the strictly morphological strategies. These include cryptic coloration, defensive markings and pilo-erection (the ability to make the hair stand on end), all of which make an animal appear larger or more fierce, or help it blend into the surrounding environment. "By its nature, morphological deception is involuntary," Sussman notes.

The next stage of deception, behavioral, can be either involuntary or voluntary. "Many primate anti-predator strategies, such as nocturnalism, distraction displays and mobbing, are involuntary acts of deception," Sussman says. "These involve genetically fixed patterns of behavior."

Some primates use combinations of morphological and behavioral deception. The Patas Monkey, which lives in desert areas where there are few trees, is the most terrestrially adapted primate besides man. It is the fastest living monkey, able to run at speeds up to 55 kilometers per hour. Usually Patas monkeys live in groups consisting of one male and several females. When the group is threatened, the male will attract the attention of the predator; while the male is being chased, the females and young go off in another direction and lie flat on the ground, where their fur camouflages them in the savanna grass.

Although it is difficult to distinguish between purely genetically determined behaviors and those in which there is at least a component of learning, Sussman says it is clear that at some point a distinction does exist.

While Sussman adds that additional rigorous studies must be conducted to confirm the hypothesis that deception in primates is conscious and deliberate, he nevertheless believes that the body of anecdotal and experimental evidence has grown too large to ignore.

### Up the evolutionary ladder

Thus far, all of the types of deception mentioned have been between species. But what of deception within a given species? Research-

ers have found that deceiving other members of one's own species is rare in most animals, but common in primates. What's more, the more intelligent the species, the more likely such deception becomes. For example, lemurs practice almost no intra-species deception, while chimpanzees practice a great deal, says Sussman.

Examples of primates deceiving their families, friends and rivals might include a chimpanzee that conceals a tasty morsel of food or an ape that misdirects the attention of another member of the group. In one well known incident involving three baboons, a dominant male observed a female baboon sitting tall behind a rock. What the dominant male didn't see was the crouching form of a subordinate male, hidden behind the rock, whom the female was grooming.

Deceiving one's mate is one thing, now what about self-deception?

Imagination, Sussman says, is a necessary component of self-deception, and yet, he notes, "even though we can see all this in animal behavior and can see that they use tools, nothing we see in any primate or in the fossil record indicates that they can use a tool — even an imaginary tool — for anything other than to manipulate the environment or for subsistence."

In other words, animals seem to be unable to assign to objects any value or meaning beyond the practical. But human beings have made that leap, Sussman says.

"Around 120,000 B.C. there is evidence that humans were capable of self-deception in the form of religious ritual. The appearance in the fossil record of burials, burial goods, and later, cave art, are the first evidence of the ability of humans to deceive themselves and to create culturally determined perceptions of nature," he says.

"Deception is socially adaptive for humans; it might also be adaptive to be able to deceive oneself.

"I don't think animals have a filter through which they see the world, but it is almost a necessity for humans," Sussman continues. "Think about what it would be like not to have culture, not to deceive yourself about what the world is like, to directly interact with the world without preconceived notions about it. All men see the world through their own culture. All cultures are different, by definition. The way in which you're brought up helps you define the world in a way that is slightly different from every other human. That means that every human has a deceptive view of the world, by definition. Its almost as if self-deception is a necessity for human existence."

— Tony Fitzpatrick and Fran Hooker

## Carnival — continued from p. 1

"Stuff a Volkswagon" contest for student organizations beginning at 11 a.m. April 11 outside Umrath Hall's Umrathskeller. The group that stuffs 20 members into a Volkswagon Jetta the fastest will win \$300. Observers can enjoy free Edy's ice cream and musical entertainment. For more information on the contest, call Suzan Kotler at 367-4090.

Other pre-carnival activities sponsored by Thurtene have included a Thurtene Throng Five-Mile Road Race, a Hoop Night during the past basketball season and a series of Night at the Rat (Umrathskeller) festivities. The final Night at the Rat will begin at 10 p.m. April 11.

For the first time in the group's 87-year history, a woman has been

selected as a Thurtene member. Suzan Kotler from Roslyn Heights, N.Y., is co-chair of public relations for the group, along with Matthew Mulkerin. The other Thurtene members and their responsibilities are: Dipak (D.P.) Rajhansa and Ashish Verma, vice presidents; David Kanter, treasurer; Brad Smith, alumni/charity; Jason Silberberg, external business; Jayson Prisant, internal business; Thomas Hawn and David Hofmann, construction and electrical; and Craig Finger and Corey Netter, security. Jim Burmeister, director of special services for the Office of Public Affairs, is the group's adviser.

For more information on Thurtene Carnival, call Kotler at 367-4090 or Mulkerin at 862-1180.



# NOTABLES

**David Felix**, Ph.D., professor emeritus of economics, has received a J. William Fulbright travel and research grant for economic research in Argentina, Brazil and Chile from March 25 to June 25.

**Ann E. Geers**, Ph.D., associate professor of psychology in the Department of Speech and Hearing at the Central Institute for the Deaf, presented a lecture titled "Language and Literacy in Oral Adolescents," during a meeting of the Illinois Teachers of the Hearing Impaired in Chicago. She also participated on the Language Panel to update the National Strategic Plan of the National Institute on Deafness and Other Communication Disorders of the National Institutes of Health.

**Kevin Herbert**, Ph.D., professor and chair of the Department of Classics, presented an illustrated lecture, titled "Classical Themes in Modern Art: From J.-L. David to the Present," at the inaugural meeting of the Society for the Classical Tradition, held last month in Boston. He is a member of the advisory board of the society, which already lists enrollments from 26 nations. As curator of the Wulfinf Coin Collection, Herbert also is responsible for the exhibit "Roman Republican Coins," on display through May 19 at the University's Gallery of Art.

**Harry Knopf**, M.D., associate professor of clinical ophthalmology and visual science, has had his paper "Recurrent Uveitis After Influenza Vaccination" accepted for publication in the May issue of the *Annals of Ophthalmology*.

**Carol Maxwell**, a doctoral student in anthropology, presented a paper, titled "Rallies and Rescues: Political Metaphors in Pro-Life Rhetoric and Performances," at the Fifth Annual Midwest Feminist Graduate Student Conference, held at Northwestern University.

**Paul L. Molina**, M.D., assistant professor of radiology at the Mallinckrodt Institute of Radiology, presented six invited lectures at the 12th annual Intermountain Imaging Conference in Steamboat Springs, Colo. The conference was sponsored by the Medical College of Wisconsin.

**W. Michael Mudrovic**, Ph.D., assistant professor of Spanish, presented a paper on "The Title as Pun in Claudio Rodríguez's *El canto de linos*" at the University of Louisville Conference on 20th-century Literature.

**Brad Richard**, a graduate student in the Writing Program, won two prizes in the 1991 poetry contest sponsored by the Department of English. Richard won the Academy of American Poets Prize for his poem "Wallace Stevens Fishing: 8/3/55" and the Norma Lowry Memorial Fund Prize for "The Death of Little Red Cap." **Jarrold Schwartz**, an undergraduate student in Arts and Sciences, won the Roger Conant Hatch Fund Prize for his poem "the showers of dachau." Richard and Schwartz will receive \$100 for each winning poem. Receiving honorable mentions in the contest were: **Amy Eagle**, a graduate student in the Writing Program, for "Virtuous Woman" in the Academy of American Poets Prize category; **Camelia Isbell**, a part-time graduate student in the Writing Program, for "No" in the Norma Lowry Memorial Fund Prize category; and **Todd Michaels**, an undergraduate student in Arts and Sciences, for "The Dead Drink Dark Beer" in the Roger Conant Hatch Prize category. Prizes will be awarded at the English department's final meeting this spring.

**Martin S. Silverman**, Ph.D., research assistant professor of physiology in the Department of Speech and Hearing at the Central Institute for the Deaf, will present a paper and serve as a session chair at the Association for Research in Vision and Ophthalmology meeting April 27-May 3 in Sarasota, Fla. Silverman's paper is titled "Restoration of the Pupillary Reflex by Photoreceptor Transplantation."

**Arlene Stiffman**, Ph.D., assistant professor in the School of Social Work, was awarded a \$25,000 grant from the Department of Health and Human Services to evaluate the Metropolitan Youth Academy Program of the Human Development Corporation.

**Martha Storandt**, Ph.D., professor of psychology, has been appointed chief editorial adviser for the publication program of the American Psychological Association.

**Murray L. Wax**, Ph.D., professor of sociology and anthropology, participated in the 5th annual meetings of the Society for Applied Anthropology, held March 13-17 in Charleston, S.C. In a session titled "Subtle Manipulation and Deception in Fieldwork," which was organized by **Joan Cassell**, a research associate in sociology and anthropology, Wax delivered a paper on "Odysseus and Socrates; Cassell and Kant." He served as a discussant in a session on "The Commoditization of Culture," and he also organized and chaired a workshop session on the commercial marketing and usage of applied anthropological research. Cassell recently was elected to the society's nominating committee. Wax is a past president of the society.

## Have you done something noteworthy?

Have you: Presented a paper? Won an award? Been named to a committee or elected an officer of a professional organization? The Washington University Record will help spread the good news. Contributions regarding faculty and staff scholarly or professional activities are gladly accepted and encouraged. Send a brief note with your full name, highest-earned degree, current title and department along with a description of your noteworthy activity to Notables, Campus Box 1070, or by electronic mail to p72245SS at WUVMC. Please include a phone number.

## RECORD

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Clemens A. Coreth, Austrian consul general, presents Austria's Badge of Honor for Art and Science to Egon Schwarz, Ph.D., Rosa May Distinguished University Professor in the Humanities.

## Schwarz honored for contributions to Austria's culture and literature

Egon Schwarz, Ph.D., Rosa May Distinguished University Professor in the Humanities and professor of German, has received the Ehrenzeichen für Kunst und Wissenschaft (Badge of Honor for Art and Science) award from the Austrian government in recognition of his contributions to Austrian culture and literature. He received the award from Clemens Coreth, the Austrian consul general from Chicago, during a March 4 ceremony in the Women's Building lounge.

Schwarz has been a member of the Washington University faculty since 1961. Among his numerous publications are works on Austrian and German writers of the 19th and 20th centuries. His 1979 autobiography titled

*No Time for Eichendorff*, is a tribute to the intellectual development of a generation that was driven from its homeland and established personal lives and careers in a foreign country.

A native of Vienna, Schwarz emigrated to South America in 1939, shortly after Austria was incorporated into the Nazi Empire. He came to the United States in 1949.

Since the end of World War II, he has frequently traveled to Austria as a guest of the country's cultural organizations, such as the Austrian Society for Literature. In 1986 he received an honorary degree from the city of Vienna. He recently was honored by the American Association of Teachers of German.

## Fossil expert will discuss 'Eve' theory

Paleoanthropologist Milford Wolpoff will deliver the Phi Beta Kappa/Sigma Xi Lecture at 11 a.m. April 17 in Edison Theatre. A professor of anthropology at the University of Michigan, Wolpoff will discuss "All About Eve: Our Fossil Evidence of Human Evolution." This lecture, part of the Assembly Series, is free and open to the public.

Wolpoff, an expert on human fossils, is a strong critic of the "Eve" theory, which proposes that modern humans all descend from one woman who lived approximately 200,000 years ago, probably in Africa. While he agrees that such a woman might have existed, Wolpoff contends that the evidence cited for her date of origin is inconclusive and ignores

contradictory fossil data. For example, Wolpoff notes fossils that show modern humans from a certain geographic area resemble archaic humans who lived in the same area 780,000 years ago.

A member of Sigma Xi, Wolpoff also belongs to the American Association of Physical Anthropologists and is an American Anthropological Association Fellow.

The lecture, which honors the initiates of Phi Beta Kappa and Sigma Xi, two academic honoraries at Washington University, is sponsored by the Department of Anthropology, Assembly Series, Phi Beta Kappa, and Sigma Xi. For more information about the lecture, call 889-4620.

## NEWSMAKERS

Washington University faculty and staff make news around the globe. Following is a digest of media coverage they have received during recent weeks for their scholarly activities, research and general expertise.

**"In most economic downturns,** the overwhelming majority of people go on doing what they are doing and getting paid what they are paid," says Murray Weidenbaum, Ph.D., director of the Center for the Study of American Business, in a recent *Newsweek* article about a predicted slump. "It has been a long time since we had a recession, so we're out of practice. Overreacting is wrong, but it always happens," he adds.

**Did Mrs. Einstein help develop the theory of relativity?** Some researchers believe Einstein's letters prove the theory was a joint effort. Clifford M. Will, Ph.D., professor of physics, disagrees. "I don't see that there's any evidence she contributed in the way they claim," he says. The theory is 75 years old, but that hasn't kept scientists from continuing to ask if Einstein was right. Will says the theory is still correct — for now. The story appeared in *Science*, the *Philadelphia Inquirer*, *Cleveland Plain Dealer*, *Chicago Sun-Times*, *Birmingham News*, *Walnut Creek (Calif.) Contra Costa Times*, and other smaller papers.



# CALENDAR

April 11-20

## LECTURES

Thursday, April 11

**Noon. Molecular Microbiology Special Seminar,** "Genetic Approaches to Structure-Function in Diphtheria Toxin," John Collier, Dept. of Microbiology and Molecular Genetics, Harvard Medical School. Room 775 McDonnell Medical Sciences Bldg.

**Noon. Dept. of Molecular Biology and Pharmacology Seminar,** "Muscarinic Receptor Activation in Rat Chromaffin Cells," Chris Lingle, WU assoc. prof., Dept. of Anesthesiology. Pharmacology Library, Room 3912 South Bldg.

**Noon. Dept. of Genetics Seminar,** "The GAD Gene, a Model for CNS Differentiation," Dave Gottlieb, WU prof., Dept. of Anatomy and Neurobiology. Room 816 McDonnell Bldg.

**2:30 p.m. Mechanical Engineering Colloquium,** "Response of Laminated Kevlar Plates to Projectiles Impact," W. Goldsmith, prof. emeritus, mechanical engineering, U. of Calif.-Berkeley. Room 100 Cupples II.

**4 p.m. Dept. of Anthropology Lecture Series,** "V. Anthropology and History: Memory, Heritage and Traditions," John Bennett, WU Anthropologist-in-Residence. 107 Simon Hall.

**4 p.m. Dept. of Biology,** "Patterns and Processes of Evolutionary Diversification in the World's Most Variable Mammal," James Patton, curator and prof., Museum of Vertebrate Zoology, U. of Calif.-Berkeley. 322 Rebstock.

**4:15 p.m. Dept. of Philosophy Colloquium,** "Undoing Ataraxia: Pascal's Christianization of Pyrrhonism," Jose R. Maia Neto, WU graduate student. Women's Bldg. Lounge.

**6:15 p.m. Dept. of Germanic Languages and Literatures Presents** "Reading From Her Works," Ursula Krechel, Max Kade Writer-in-Residence. Room 349 McMillan.

**7 p.m. Council for InterReligious Concerns Presents a Panel Discussion,** "Women in Faith: Traditional vs. Contemporary Roles," with Rabbi Devorah Jacobson, Jenny Williams and Satemen Keshavarz (Jewish, Christian and Islamic perspectives). Hillel House, 6300 Forsyth.

Friday, April 12

**9:15 a.m. Dept. of Pediatrics Fourth Ben Abelson Memorial Lecture,** "Souping Up the Cell Motor," Thomas P. Stossel, prof. of medicine, Harvard Medical School. Clopton Aud., 4950 Audubon Ave.

**Noon. Dept. of Physics Brown Bag Lunch Seminar,** "Nonaccelerator Particle Physics — The Highlights," Ramanath Cowsik, Tata Institute and McDonnell Center for Space Sciences. Room 241 Compton Hall.

**Noon. Special Neuroscience Seminar,** "Descending Limbic Motor Pathways," Gert Holstege, Laboratory of Anatomy and Embryology, U. of Groningen. Room 928 McDonnell Medical Sciences Bldg.

**Noon. Dept. of Surgery Transplant Conference,** "Vascular Endothelia and T Lymphocytes as Co-Conspirators in the Destruction of Experimental Allografts," Charles G. Orosz, Dept. of Surgery. 3302 Clinical Sciences Research Bldg.

**1:10 p.m. George Warren Brown School of Social Work Colloquia,** "Political Structure, Economic Growth, and Social Development: The Experience of the Four Little Dragons," Peter C.Y. Lee, prof., School of Social Work, San Jose State U. Brown Hall Lounge, Room 218.

**4 p.m. Dept. of Biology Seminar,** "Streptococcal M. Protein: A Common Structural Motif for Surface Protein of Gram-Positive Organisms," Vincent A. Fischetti, Rockefeller U., New York. Room 322 Rebstock Hall.

Saturday, April 13

**9 a.m. Saturday Morning Neural Science Seminar Series:** The Neurobiology of Alzheimer's Disease Presents "The Hippocampus and Parahippocampal Gyrus in Aging, Alzheimer's Disease, Amnesia and Schizophrenia," Joseph L. Price, WU Dept. of Anatomy and Neurobiology. Erlanger Aud., McDonnell Bldg.

**1:30 p.m. Dept. of Classics Lecture,** "The 1904 St. Louis World's Fair — in Word and Memorabilia," Edward C. Eichor. Hurst Lounge, 201 Duncker Hall. For more info., call 889-5123.

Monday, April 15

**4 p.m. Immunology Program Seminar,** "Molecular Biology of Complement Deficiency Syndromes," Rick A. Wetsel, WU asst. prof. of pediatrics. Third Floor Aud., Children's Hospital, 400 S. Kingshighway Blvd.

**4 p.m. Dept. of Psychology Colloquium Series** with Hazel Markus, U. of Michigan. Room 102 Eads Hall.

**5 p.m. Dept. of Romance Languages and Literatures Lecture,** "The Development of Character in Fiction (Mann, Proust, Pasinetti)," Pier Maria Pasinetti, prof. emeritus, U. of Calif.-Los Angeles. Stix International House living room.

**8 p.m. Dept. of English Presents Play Reading,** "Proud Flesh," James Nicholson, WU artist-in-residence in drama. Women's Bldg. Lounge.

**8 p.m. School of Architecture Monday Night Lecture Series,** "Humanist Traditions in the Landscape," Grant Jones, Seattle landscape artist and senior principal, Jones and Jones Architects and Landscape Architects. Steinberg Hall Aud.

Tuesday, April 16

**9 a.m. Dept. of Psychiatry Presents The Eli Robins Visiting Lectureship,** "Monoamine Oxidase Inhibitors: Past, Present, and Future," Matthew Rudorfer, deputy assoc. director for clinical psychopharmacology, National Institute of Mental Health. Clopton Aud., 4950 Audubon.

**4 p.m. Assembly Series Presents Lewin Lecture,** "Equality is Indifferent to Sex," Joan Wallach Scott, Institute for Advanced Studies, Princeton U. Hurst Lounge, 201 Duncker Hall.

Wednesday, April 17

**11 a.m. Assembly Series Presents Phi Beta Kappa/Sigma Xi Lecture,** "All About Eve: Our Fossil Evidence of Human Evolution," Milford Wolpoff, prof. of anthropology, U. of Michigan. Edison Theatre. For more info., call 889-4620.

**12:30 p.m. Neuroscience Luncheon Seminar,** "Long-range Observation of Molecular Motion in Membranes," Elliot Elson, WU Dept. of Biochemistry and Molecular Biophysics. Room 928 McDonnell Medical Sciences Bldg.

**3 p.m. Center for the Study of Islamic Societies and Civilizations Colloquium,** "The Unofficial Story: Turkish Popular Fiction in Early Twentieth Century," Daryo Mizrahi, Dept. of Anthropology, Columbia U. Cohen Lounge, Room 113 Busch Hall.

**4 p.m. Assembly Series Lecture,** "Unto Caesar: The Political Relevance of Christianity," David McLellan, Dept. of Politics, U. of Kent, England. Hurst Lounge, 201 Duncker Hall.

**4 p.m. Dept. of Biochemistry and Molecular Biophysics Seminar,** "DNA Polymerase III Holoenzyme: Function and Mechanism of a Replicative Complex," Charles S. McHenry, Dept. of Biochemistry, Biophysics and Genetics, U. of Colo.-Denver. Erlanger Aud., McDonnell Medical Sciences Bldg. For info., call 362-0261.

Thursday, April 18

**9:30 a.m. Respiratory and Critical Care Division Presents The Fifteenth Annual I. Jerome Flance Visiting Professor of Medicine Lecture,** "Cystic Fibrosis: From Bedside to Bench and Back," Michael J. Welsh, prof. of medicine, physiology and biophysics, Howard Hughes Medical Institute, U. of Iowa. Clopton Aud., 4950 Audubon Ave.

**4 p.m. School of Medicine Library and the Biomedical Communications Center Tenth Estelle Brodman Lecture,** "The Structure of Serendipity: Exploring Biological Databases," David J. Lipman, National Center for Biotechnology Information, National Library of Medicine. Moore Aud., 660 S. Euclid Ave.

**4 p.m. Dept. of Pathology Seminar,** "Activation and Inactivation of Insulin Receptor Signalling," C. Ronald Kahn, Joslin Diabetes Center. Erlanger Aud., McDonnell Bldg.

**4 p.m. Neuroscience Seminar,** "Genetic Analysis of Neuronal Differentiation and Degeneration in C. elegans," Martin Chalfie, Dept. of Biological Sciences, Columbia U. Cori Aud., 660 S. Euclid Ave.

**4 p.m. Asian Studies Colloquium,** "Janus-Faced Justice: Political Criminals in Imperial Japan," Richard Mitchell, prof. of history, UMSL. Room 30 January Hall.

**4 p.m. Dept. of Earth and Planetary Sciences Colloquium,** "Using O, Sr and Nd Isotopes to Trace the Evolution of Mantle-derived Magmas in the Continental Crust: The Ivrea Zone, Italian Alps, and the Western Sierra Nevada Foothills, CA," Diane Clemens Knott, California Institute of Technology. Room 102 Wilson Hall. For more info., call 889-5610.

**4:15 p.m. Dept. of Philosophy Colloquium,** "Meaning, Holism, and Conceptual Role Semantics," Ernest LePore, WU visiting prof. of philosophy. Living room, Alumni House.

**6:15 p.m. Dept. of Germanic Languages and Literatures Presents** "Reading From Her Works," Gitta Deutsch, Austrian writer. Room 241 Simon Hall. For more info., call 889-5106.

Friday, April 19

**9:15 a.m. Pediatric Grand Rounds,** "Doctors to the World International Programs," Othniel J. Seiden, medical director and chief executive officer, Doctors to the World. Clopton Aud., 4950 Audubon Ave.

**Noon. Dept. of Cell Biology and Physiology Seminar,** "Circulating and Vascular Mediators of Rethrombosis After Successful Arterial Thrombolysis," Dana Abendschein, WU Dept. of Internal Medicine. Room 423 McDonnell Bldg.

**4 p.m. Dept. of Physics Colloquium,** "Conceptual Physics," Paul Hewitt, City College of San Francisco. Room 204 Crow Hall.

**8 p.m. School of Architecture Monday Night Lecture Series Presents the William Adair Bernoudy Memorial Lecture** "The Work of Arthur Erickson," Arthur Erickson, Los Angeles architect. Room 1 Simon Hall.

## PERFORMANCES

Friday, April 12

**8 p.m. Performing Arts Dept. Presents Shakespeare's "Othello."** (Also April 13 at 8 p.m., and April 14 at 2 p.m.) Edison Theatre. Cost: \$7 for general public; \$5 for senior citizens, students and WU faculty and staff. For ticket info., call 889-6543.

Thursday, April 18

**8 p.m. Student Union Presents the Spring Student Dance Concert.** (Also April 19 and 20, same times.) Mallinckrodt Center Dance Studio. Cost: \$3 general admission; \$2 students. Co-sponsored by Thyrsus. For info., call 889-5858.

## MUSIC

Friday, April 12

**8 p.m. Dept. of Music Presents a Collegium Musicum Concert,** directed by Bruce Carvell. Graham Chapel. Free. For info., call 889-5581.

Sunday, April 14

**2:30 p.m. Dept. of Music Presents a Wind Ensemble and Chamber Choir Concert,** directed by Dan Presgrave and John Stewart, respectively. St. Louis Art Museum Theatre in Forest Park. Free. For more info., call 889-5581.

**3 p.m. Dept. of Music Presents a Classical Indian Music Concert** featuring India's Hindustani music for sarod and tabla. Co-sponsored by Sangeetha. Holmes Lounge, Ridgley Hall. Tickets: \$15 general public; \$8 students and senior citizens; and free for WU faculty, staff and students. For info., call 889-5581.

**7 p.m. Dept. of Music Presents Black Composers Repertory Choir** featuring a variety of vocal styles by African-American composers and creators. Steinberg Hall Aud. Free.

Monday, April 15

**7:30 p.m. Dept. of Music Presents a Senior Flute Recital** with Rachele Brandt. Graham Chapel. Free.

Saturday, April 20

**6:30 p.m. Spiritual Friendship Ministries Presents the Second Annual Bi-state College Gospel Fellowship Spectacular** with several college choirs. Special guests are O'Landa Draper and the Associates. Graham Chapel. Donations requested. For info., call 862-4409.

## EXHIBITIONS

**"Roman Republican Coins."** Through May 19. Gallery of Art, lower gallery, Steinberg Hall. Gallery hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4523.

**"Washington University Art Collections."** Through May. Gallery of Art, lower gallery, Steinberg Hall. Gallery hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

**"McDowell's College and Pope's College."** Through April 19. Glaser Gallery, Room 702, School of Medicine Library. Hours: 8 a.m.-10 p.m. weekdays; 1-6 p.m. weekends.

**"A Temple of Texts: Fifty Literary Pillars,"** selected by William Gass, WU David May Distinguished University Professor in the Humanities. Through April 15. Special Collections, Olin Library, Level 5. Exhibit hours: 8:30 a.m.-5 p.m. weekdays. A reception to mark the publication of the exhibit's catalog will be held from 4-6 p.m. April 14 in Special Collections.

**"MFA I Exhibition."** April 13-21. Opening reception: 5 to 7 p.m. April 12. Gallery of Art, upper gallery, Steinberg Hall. Hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

**"Winning Collections of the Neureuther Student Book Collection Competition."** April 17-May 10. Special Collections, Olin Library, Level 5. Hours: 8:30 a.m.-5 p.m. weekdays.

## FILMS

Thursday, April 11

**6 and 10 p.m. Filmboard Foreign Series Presents** "The Seven Samurai," a Japanese film with English subtitles. 100 Brown Hall. \$3.

Friday, April 12

**7 and 9:30 p.m. Filmboard Feature Series Presents** "Internal Affairs." (Also April 13, same times, and April 14 at 7 p.m.) 100 Brown. \$3.

**Midnight. Filmboard Midnight Series Presents** "48 HRS." (Also April 13, same time, and April 14 at 9:30 p.m.) 100 Brown Hall. \$3. On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for a double feature price of \$4; both Sun. films can be seen for \$4.

Monday, April 15

**7 and 9:30 p.m. Filmboard Classic Series Presents** "The Wrong Box." 1966. (Also April 16, same times.) Room 100 Brown Hall. \$3.

Tuesday, April 16

**4 p.m. Dept. of Asian and Near Eastern Languages and Literatures Presents** "Evening Bell (Wan zhong)," a Chinese film. Room 100 Busch Hall. Free.

Wednesday, April 17

**7 and 9:30 p.m. Filmboard Foreign Series Presents** "Elektra," a Greek film with English subtitles. (Also April 18, same times.) Room 100 Brown Hall. \$3.

**7:30 p.m. Dept. of Romance Languages and Literatures Presents** "Les Jeux sont faits," a French film with English subtitles. Room 210 Ridgley Hall. Free.

Friday, April 19

**7 and 9:30 p.m. Filmboard Feature Series Presents** "The Little Mermaid." (Also April 20 at 2, 7 and 9:30 p.m., and April 21 at 2 and 7 p.m.) Room 100 Brown Hall. \$3.

**Midnight. Filmboard Midnight Series Presents** "Yellow Submarine." (Also April 20, same time, and April 21 at 9:30 p.m.) Room 100 Brown Hall. \$3. On Fri. and Sat., both the 9:30 p.m. and midnight films can be seen for a double feature price of \$4; both Sunday films can be seen for \$4.

## SPORTS

Thursday, April 11

**3 p.m. Baseball.** WU vs. Maryville College. Kelly Field.

Friday, April 12

**3:30 p.m. Women's Tennis.** WU vs. DePauw U. Tao Tennis Center.

Monday, April 15

**11 a.m. Golf.** WU Classic. Greenbriar Country Club.

**3:30 p.m. Men's Tennis.** WU vs. Principia College. Tao Tennis Center.

Tuesday, April 16

**3:30 p.m. Men's Tennis.** WU vs. St. Louis University. Tao Tennis Center.

Thursday, April 18

**2 p.m. Baseball.** WU vs. Quincy. Kelly Field.

Friday, April 19

**All day. Men and Women's Tennis.** UAA Championships. Through April 21. Doubletree Conference Center in West County.

**3:30 p.m. Junior Varsity Baseball.** WU vs. Concordia Seminary. Kelly Field.

## MISCELLANY

Thursday, April 11

**Noon. George Warren Brown School of Social Work Presents** "Psychopharmacology: The Social Work Agenda," a video conference for faculty, practitioners and students. Participants can call in questions to the six-person panel. 542 Jolley. For reservations, call 889-6612.

Thursday, April 18

**6 p.m. School of Engineering Annual Dinner Meeting and Presentation of Alumni Achievement Awards.** Cocktails at 6 p.m., followed by a 6:45 p.m. dinner meeting and awards at 8 p.m. University Club of St. Louis, 1034 S. Brentwood Blvd. Cost: \$30 per person. For more info., call Jeffrey Lorber at 889-4575.

Friday, April 19

**5:45 p.m. Hillel Shabbat Dinner Service Presents** "Israel at Fortysomething," David Vital, prof. of political science at Tel Aviv University. Services will be held at 5:45 p.m., followed by a 6:30 dinner and 8:30 p.m. lecture. Dinner reservations are due by April 18. Dinner: \$6 members; \$8.50 nonmembers. Hillel House, 6300 Forsyth Blvd. For info., call 726-6177.

Saturday, April 20

**11 a.m.-8 p.m. Thurtene Carnival.** (Also April 21, same times.) Campus parking lot at corner of Millbrook and Skinker boulevards. No admission fee. For more info., call 367-4090.

## Calendar Deadline

The deadline to submit items for the April 18-27 calendar of the Record is April 12. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and identification and the title of the event; also include your name and telephone number. Send items to Deborah Parker, calendar editor, Box 1070, or by electronic mail to p72245DP at WUVMC.