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Vol. 11 No. 15/Dec. 4, 1986

During the ceremony marking the first endowed chair in the School of Architecture, creators of the chair, Norman G. Moore (left) and Ruth E. Moore Garbe join Constantine Michaelides, dean of the School of Architecture (right), and Udo Kultermann, who has been named the first occupant of the Ruth E. and Norman G. Moore Professorship in Architecture.

## Do trees talk?

## Researchers at Tyson are studying whether trees 'communicate' to produce large crops of acorns, nuts

Remember the delightfully wacko Dr. Doolittle jabbering to the trees in the 1968 movie fantasy of the same title? "I talk to the trees, but they don't listen to me," he laments in the Academy Award-winning song, "Talk to the Animals."

Now it seems those hushed hardwoods may have failed to reply because they were too engrossed in their own conversations to notice the good doctor. Long-range research at Washington University's Tyson Research Center is focusing on how trees collaborate to produce extremely large crops of acorns and nuts. This phenomenon is called "mast Washington University, indicates that what goes on 'neath the shade of the old oak tree is more than coincidence. What triggers mast crops and why? Can they be predicted?

"Listening" to trees is a slow, painstaking process. The Tyson study, supported by the Missouri Department of Conservation, has gone to extraordinary heights to learn the secrets of the forest.

Each year over the last six, field

researchers have tracked flower and fruit development in 60 trees — including white, red and black oak and pignut hickory — in Tyson's rolling forest southwest of St. Louis. In spring, researchers hand-count the number of male and female flowers (yes, they are different) on selected branches of study trees; in late summer they return to measure new

Continued on p. 2

## 'Cosby' consultant to talk on psychology of black America

## Two alums create first endowed architecture chair

Two former St. Louisans, Ruth E. Moore Garbe and her brother, Norman G. Moore, have announced a \$1 million gift to endow a chair in the School of Architecture.

The Ruth E. and Norman G. Moore Professorship in Architecture concentrates on urban planning and design. Udo Kultermann, Ph.D., professor of architecture, has been designated first occupant of the chair. The gift is part of the ALLIANCE FOR WASHINGTON UNIVERSITY, a fundraising campaign announced in 1983.

Garbe graduated from Washington University in 1929 with a degree in liberal arts and, in 1930, received a master of arts degree in political science and commerce and finance. Norman G. Moore graduated in 1933 with a degree in architecture.

Chancellor William H. Danforth said, "Through this wonderful addition to our architecture program, Ruth E. Moore Garbe and Norman G. Moore have created the first endowed chair in the school. Endowed professorships are critically important to Washington University's development because they attract and retain high caliber faculty. We are grateful to these two distinguished graduates for their foresight and support."

Garbe was an employee of the old St. Louis Star-Times before moving to Chicago where she became the Washington, D.C., correspondent for the Chicago Sun Times, and later, the paper's architectural critic. She was extensively involved in architectural development in Chicago and served with a number of architectural groups. She also became a successful author and published a number of books reflecting an interest in anthropology and architecture.

She is a member of the University's Eliot Society and was a University trustee from 1966-70. A commencement speaker in 1968, she also served as a member of the Library Task Force in conjunction with the Commission on the Future of Washington University.

Moore is a successful architect and consultant who established his own firm and specialized in hospital design. He designed hospitals on the West Coast — including San Francisco General and Veterans Memorial

truiting."

"Mast fruiting represents a pulse of energy and nutrients into the forest ecosystem," says Richard W. Coles, Ph.D., adjunct biology professor and director of Tyson. "It can be quite dramatic — acorns literally so abundant that it's like walking on a floor covered with ball bearings. The interesting aspect is that the trees' reproductive efforts are coordinated. One wonders how."

Every few years, trees within a limited area let loose with a huge crop of acorns and nuts from five to 20 times as much as normal. Until recently, this overabundance was dismissed as just another of nature's interesting quirks.

But research conducted by Victoria Sork, a plant ecologist at the University of Missouri in St. Louis, in conjunction with biologists Coles and Owen Sexton, Ph.D., of Alvin F. Poussaint, M.D., associate professor of psychiatry at Harvard Medical School and consultant to "The (Bill) Cosby Show," will speak on "The Psychological State of Black America" at 7 p.m. Tuesday, Dec. 9, in the John E. Simon Hall Auditorium. The event is free and open to the public.

Following the lecture, Rosetta Taylor Moore, Ph.D., visiting instructor in the University's African and Afro-American Studies Program, and Aaronette M. White, a doctoral candidate in psychology at Washington University, will respond to Poussaint's talk.

The event is part of the eighth annual W.E.B. DuBois Lecture Series at Washington University. The series is sponsored by the African and Afro-American Studies Program.

As psychological consultant for the top-rated Cosby show, Poussaint critiques the show's scripts for stereotypes and unrealistic situations. He has written an introduction and afterword to Cosby's best selling book, titled *Fatherhood*. Poussaint also is associate dean for student affairs at Harvard Medical School.

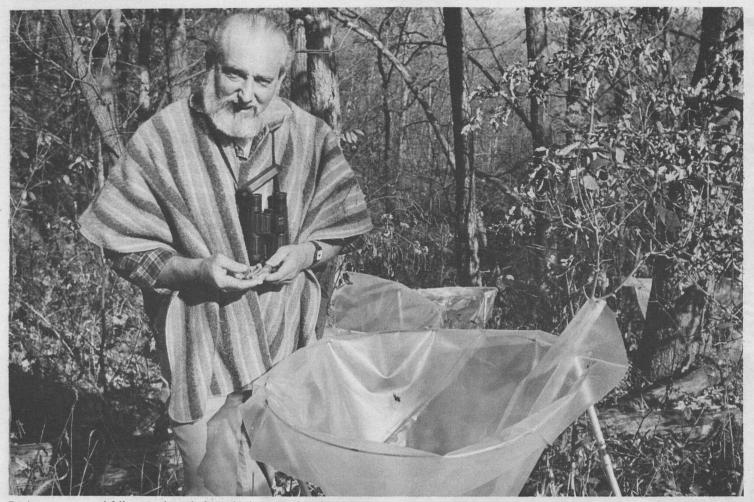
Among Poussaint's areas of expertise are homicide, interracial marriage and children, affirmative action, black Americans' self-image, violence in society and in the family, delivery of health care and racism.

Poussaint has written numerous articles for lay and professional publications and is author of the best seller *Why Blacks Kill Blacks*, his *Continued on p. 2*  Hospital as well as many hospitals in Hawaii.

Earlier in his career, he supervised federal grants for the improvement of medical facilities in the Western states.

He was active in many athletic programs at Washington University and was a member of the swimming team, which won the Missouri Valley Championship for four consecutive years.

He and his sister are now both retired and reside in San Francisco, Calif. Dedication of the professorship was held Monday, Nov. 24, at Givens Hall, the School of Architecture.



During summer and fall, cone-shaped plastic baskets are placed under trees at Tyson Research Center to sample acorn production. Tyson's Director Richard W. Coles examines some nuts retrieved from these traps.

## Tree talk—continued from p. 1

growth and count maturing acorns that the flowers have produced.

Gathering that kind of data requires entering squirrel country at the very tops of majestic oaks, 40, 50, 60 feet in the air. "It is impossible to count accurately from the ground, even with binoculars, because the flowers are half the size of a baby fingernail and hidden in the stem," Sork notes. Researchers access the tree canopy using lift-bucket trucks called "cherry-pickers."

During summer and fall, eight cone-shaped plastic baskets are placed under each tree to sample acorn production. Nuts retrieved from these traps are examined in the lab to determine the percentage of seeds capable of growing into trees.

The intense scrutiny is bearing fruit, explaining how arboreal cycles change from year to year and how the physiology of an individual tree controls its reproductive output. A number of other woodland peculiarities are seeing the light of day, too.

By tracking flower and acorn

production, he says, there are more acorns than the squirrels, deer, birds and turkey can eat. That means a better chance that some of the acorns will produce new trees. The crop could be so big that only 10 to 15 percent of it is eaten, compared to 70 to 80 percent in a normal year. (The word "mast," in fact, comes from the centuries-old Anglo-Saxon word for food.)

Somehow the trees "know" that if only a few of them produce a large crop, acorn consumers will simply migrate to those trees for food. There must be some kind of "cooperation" for the system to work.

Sork's data tends to verify the hypothesis: White and red oak, whose acorns are palatable to animals, produce large variations in crop size. Black oak - less desirable to consumers — do not produce mast crops as often or as large. In high-production years, the study discovered, the percentage of acorns damaged by pests decreased while the overall percentage of viable seeds increased dramatically for all species. If forestry and wildlife managers could predict when mast crops occur, says Coles, they could more effectively regulate forest regeneration, sustain animal population with supplemental feeding when necessary, and perhaps even re-introduce some endangered wildlife that rely on acorn production. But the plot thickens when researchers theorize on how trees' productive efforts are synchronized. There is no regular cycle to mast crops. Most interesting, Sork says, is that different species produce mast crops in different years. One year white oaks might produce a mast fruiting; the following year red oaks may have the large crop. If the production of a large crop depends only on the weather, as many have suggested, then Sork says

all trees — regardless of species should have the same good years and bad years. "But they don't," says the scientist.

Does that mean that whispering pines really do?

"The improbable notion that trees communicate among themselves is considered quite radical," says Coles, "but it is certain there is something going on."

Sork is skeptical. "I haven't seen any evidence that oaks communicate. I think there are better explanations for their 'behavior.' " The difference might be in the way we interpret "communication." According to Sork, the occurence of a mast crop may be a genetic response.

"For example," she explains, "let's say certain weather conditions initially cue several trees to produce good crops in the same year. They would have more surviving acorns because they did it together, and their offspring would tend to respond to the same weather cues. The next year, one individual puts out a ton but because no one else is doing anything, all his seeds get eaten. Natural selection would act very quickly favoring those who produce with the same set of weather cues." Thus trees may "talk" with succeeding generations via the genetic language contained in pollen. In mast fruiting years it is possible, she says, that a handful of the best pollen producers, spurred by common weather cues, trigger the event by producing unusually large amounts of high-quality pollen. Sork plans to focus on this possibility as the study continues.

## Cosby—continued from p. 1

first book. The book includes an introduction by the Rev. Jesse Jackson, whom Poussaint worked with in the mid<sup>2</sup>60s as Southern field director for the Medical Committee for Human Rights in Mississippi. Poussaint is a founding member of Jackson's organization, Operation PUSH (People United to Save Humanity), and in 1984 was an adviser to Jackson's presidential campaign. He served as a fence mender when campaign controversy erupted with the Jewish community.

A native of East Harlem, N.Y., Poussaint has a bachelor's degree

from Columbia University in New York City and a medical degree from Cornell University in Ithaca, N.Y. He has a master's degree in research and psychiatry from the University of Cali-



fornia at Los Alvin F. Poussaint Angeles. He received an honorary doctor of laws degree from Washington University in May.

For more information, call African and Afro-American Studies at 889-5690.

## Madrigal singers to perform 20th Christmas concert

The madrigal singers at Washington University will perform the 20th Annual Madrigal Christmas Concert at 8 p.m. Saturday, Dec. 6, in Holmes Lounge in Ridgley Hall. The concert is free and open to the public.

Music professor Orland Johnson is director of the 20-member choir. The concert will include Christmas anthems, carols, a renaissance motet and PDQ Bach.

For more information about the concert, call 889-5574.



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production patterns, scientists have identified when in the tree's annual cycle the "decision" is made to produce a mast crop. "Although trees fluctuate tremendously in acorn production, they flower with similar vigor every year," explains Sork. "Aside from the tree's general health, what really makes the difference in crop size is the genetic quality of the pollen fertilizing the flower."

The researchers also noted, as others have in the past, that some species have only one or two good years out of five. "But when it's a good year, the majority of adult trees have a good year. When it's a bad year, most have a bad year," Sork observes.

According to Coles, "The prevailing hypothesis is that this conspiracy to synchronize mast crops exists to insure survival of the species." When trees produce a large crop after several years of skimpy Still, to many biologists including Coles, the idea of a more direct chemical language, although remote, is intriguing. "Direct communication, though not substantiated, is not out of the question," Coles maintains. "Questions like these motivate scientists to keep studying a problem."

Robert Brock

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#### In-A-Flash

## Student markets learning tool for college entrance exam

#### This article is part of a continuing monthly series profiling Washington University students.

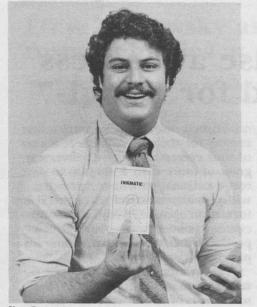
Quick! What visual image would pop into your head if you saw the word enigmatic? If the image of a jigsaw puzzle in the shape of a question mark comes to mind, you've hit the bull's eye. At least that's the picture the creators and marketers of In-A-Flash cards are hoping their customers will see after studying their product.

In-A-Flash cards are described as a unique tool for teaching college-bound high schoolers how to prepare for a Scholastic Aptitude Test (SAT).

The idea for the flash cards came about when a high school junior in Pittsburgh was having trouble studying for the vocabulary part of the SATs. His sister suggested a long list of words to learn. Because he dreaded looking up the definitions of the words, his father suggested buying flash cards with words and definitions. Finding no such cards, the sister and father, with brother's help, designed their own, with pictures to accompany the words.

That high school junior, Jim Genstein, is now a junior at Washington University and is playing a big part in marketing In-A-Flash cards.

"When we first began to try to sell them, we weren't very successful. We realized we weren't doing things right," says Genstein, a business major. "We realized we didn't know what we were doing. When I was a freshman here, I went to see William Blozan (assistant professor of marketing) and he told us we needed to begin direct marketing. So that's what I've been working on and it has helped our sales a lot."



"I was a guinea pig when the cards were being designed," says Genstein. "I would proofread a card, and if I came out confused, we figured every other high school student would come out confused. I remember sitting through two or three dinners trying to come up with a picture for the word orthodox." The flash cards' graphic designer finally came up with a picture of both a rabbi and priest in their respective garb.

While holding down a full course load at the University and two jobs, Genstein has been bu'sy trying to reach high school students nationwide through direct mail, as well as by contacting local parent/teacher organizations, suggesting that the cards be used as fund-raising tools.

Neither task has been easy. "With direct mail, you really need to know your market. I've spent a lot of time researching such things as which zip code areas have high percentages of students going on to college and what time of year is best to send the letter introducing our cards.

"And you wouldn't believe how hard it is to contact heads of PTAs. You first have to convince the secretary at each school that you're not a student who is mad about something and wants the name and number of the PTA president to call him or her and complain. Usually, however, when I do reach PTA heads, they're interested. They like the flash card idea, because as members of a PTA, they'd rather fund raise with an educational product than by selling submarine sandwiches."

Genstein has found that marketing and selling the flash cards have allowed him to practice concepts he has learned at the business school. "This has been a very important part of my business education and has given me a realistic outlook as to how something like cost estimation, which we've been studying, actually figures in a business. It's been great being able to put to work things that I have learned."

Now, quick! What image would pop into your head if you saw the word orthodox?

Susan Killenberg



**"Brain Bowl":** The Basketball Bears make their home debut this weekend, attempting to win their third straight Lopata Classic title this Friday and Saturday at the Field House. Above, Lucy and Stanley Lopata, sponsors of the classic, cheer last year's team on to victory. The third annual tournament, also dubbed the "Brain Bowl" or "Brainball Classic," gets under way at 6 p.m. Dec. 5 with a first-round contest between Caltech and Johns Hopkins. Immediately following the first game, the Bears battle MIT in the evening's nightcap. On Saturday, the consolation championship begins at 6 p.m., followed by the championship contest at 8 p.m.

## Fourth-ranked volleyball Bears lose tourney bid to fifth-ranked team

The Washington University volleyball Bears were overlooked by the NCAA's national tournament selection committee last weekend, despite winning their final 19 matches of the season to finish the year with a 43-8 mark. The NCAA selected its 24-team tourney field last month, passing by the central region's fourth-ranked Bears to offer a bid to the region's fifthranked team, Wisconsin-Whitewater.

"We're not real happy about it,"

says head coach Teri Clemens. "There's absolutely no doubt in my mind that we deserve to be there. It's hard to swallow. It's one of those things you can't do much about; you just have to live with it. But we'll be back next year. I'll promise that."

And that kind of promise isn't just lip service. Consider that the Bears' starting six this season consisted of a lineup of four freshmen, one sophomore, and one junior all of whom will return for the 1987 campaign.

The Bears' 43 wins were a school record not only for volleyball, but for any sport in Washington University history. And the record-set-

ting didn't stop there. The 1986 Bears completely rewrote Washington University's statistical record book, adding chapters and volumes that never existed. Freshman Brooke Hortin, Albion, Ill., led the assault on old Bear marks, creating a veritable library of new Washington University highs. Hortin set new single-season standards in kills (545), attacks (1,353), hitting percentage (.294), kills per match (10.7), service aces (60), and digs (306). She set single match highs in kills (28), attacks (69), and service aces (6).

Junior Chris Becker, an academic and athletic All-America candidate from Oak Park, Ill., broke her own year-old record for total blocks in a season with 225; freshman Beth Goodwin, Peru, Ind., tied Hortin with 60 service aces; freshman Kerry Fagan, Indianapolis, Ind., set a new Bear mark with 104 block assists; sophomore setter Deb Dudley, Oak Park, Ill., dished up 739 assists for another all-time Bear season-high; and freshman Lori Nishikawa, Lawrence, Kan., and Hortin were the only Bears to play in all 51 matches.

## Tennis team closes season at 11-3

The 1986 Washington University women's tennis team won nine of its final 10 matches, to close out the fall season with an impressive 11-3 record. The Bears defeated two NCAA Division I opponents in 1986, and lost only once in eight tries against Division III foes. Perhaps the Bears' toughest fall opponent was the weather, as rain claimed three matches, preventing the Bears' from posting an even better record. "I think this year's team was the strongest in history," says head coach Lynn Imergoot, who has led the Bears to a 134-54 dual match record in 11 years at the helm of the women's tennis program. "We had to rotate our lineup a lot because of some injuries and scheduling conflicts, but we still fielded a highly competitive team each time out.'

Senior Lori Goldberg, Indianapolis, Ind., and sophomore Jill Rosen, Sands Point, N.Y., teamed up for a flawless 7-0 record in doubles play, establishing themselves as the team's steadiest net combination throughout

Jim Genstein

Each flash card has a cartoon picture on front that gives an idea of the meaning of the word or math concept written above it. On the back of a verbal flash card is a definition of the word and a list of similar and dissimilar words. Also, the word is used in an analogy and in a sentence, just the way words are presented on the SAT.

On the back of a math card is a definition of the math concept and sample SAT problems that can be solved by using the concept. The answer to the problem and information on how to obtain it accompany each math problem.

## 1987 calendars being sold for scholarship fund

After five years of selling Christmas greeting cards, the Central Institute for the Deaf Alumni Association National Scholarship Fund (CIDAA NSF) is selling 1987 calendars designed by seven deaf artistic members of CIDAA.

The calendars are \$5 and can be ordered by mail or picked up at the institute, 818 S. Euclid Ave. For information on mail orders, call 652-3200.

CIDAA NSF is a Missouri nonprofit corporation organized to sponsor scholarships for hearing-impaired children and to increase public awareness of the services of the Central Institute for the Deaf. The Bear netters were paced by senior Beth Elliott, Godfrey, Ill., who played her way to a near-perfect 12-1 singles record, while chipping in an equally-impressive 6-1 mark in doubles play. the year.

Two of the team's new additions for 1986 also proved to be immediate successes. Freshmen Sandy Chen, Iowa City, Iowa, and Gabrielle Marder, Springfield, Ill., posted a combined 21-6 singles record, while getting together for a 5-4 mark in doubles.

"I was very pleased with the way our freshmen contributed," says Imergoot. "There were times when our lineup consisted of almost all freshmen, and the team still brought home a victory. All this playing experience for the rookies can only lead to positive results in the future."

And the future is not so far off. The Bears begin their spring schedule March 17 at the University of Missouri-St. Louis.

3

# MEDICAL RECORD

## Researcher finds baby cries change in response to pain

The shrill cries from the small room off the newborn nusery cannot be ignored. The baby boy lying restrained on an infant-sized table is being circumcised, and judging by the high pitch of his cry, he's in pain. He is, indeed, not taking it like a man. But then, any **adult** male would be anesthetised.

Although circumcision is not recommended by the American Academy of Pediatrics, each year nearly one million male babies undergo circumcision — the most common elective surgery performed in America without anesthesia. Historically, physicians have believed that anesthesia is not only too risky, but also may not be needed for babies, because their immature nervous systems keep them from feeling pain.

Babies do feel pain, though, according to new research at Washington University School of Medicine in St. Louis. What's more, their cries change measurably in response to pain, says Fran Porter, Ph.D., who conducted a study in collaboration with Richard Marshall, M.D., of 50 healthy male infants undergoing circumcision.

"I studied the baby's cry," says Porter, a research associate in pediatrics at St. Louis Children's Hospital. "By measuring changes in the cries in response to a broad range of stimuli, we have a better understanding of what babies are experiencing."

Porter found that, during circumcision, the babies' cries changed 'in very dramatic ways'' as procedures became increasingly invasive.

"There's absolutely no evidence to support the notion that infants don't feel pain," says Porter. "And now, we have evidence which refutes that idea." Previous studies on circumcision have indicated that babies do undergo behavioral and physiological changes when stressed, she points out.

Actually, a baby's cry is loaded with information that adults are capable of recognizing, Porter comments. "Some might say that we've known this all along, but there's a history of treating babies as though they don't feel pain. At least acoustically, they're telling us that they do."

For her study, Porter recorded the vocalizations of babies throughout the various stages of circumcision: before the surgery while the baby rests in his bed, during a preparatory period when his arms and legs are immobilized by restraints, during the circumcision itself, and then durwhich provide visual pictures of the sounds. These spectrograms illustrated definite changes in the pitch of the cry, its harmonic structure, and its duration and pattern in response to increasingly invasive procedures. Computer analyses of the cries were also performed at the Central Institute for the Deaf (CID) in the Washington University Medical Center, and these confirmed the sound spectrograms.

Porter also examined whether these changes in cry characteristics were identifiable and meaningful to adults. She played taped cries taken from various points during circumcision and asked both mothers and adults trained in acoustics to judge the urgency of the cries on a scale of one to five. None of the listeners were informed as to cry context. The cries recorded during the more invasive procedures were in fact judged to be much more urgent than those from the less invasive procedures.

'This was statistically significant," observes Porter. "Our conclusion is that babies acoustically respond to what we think are painful procedures, and adults can discriminate differences in their cries that reflect real differences in the stimuli. The idea that babies don't feel pain is based on the fact that their nervous systems are immature, Porter says. Traditionally, she explains, it's been believed that until nerves are covered in myelin – a protective sheath — they cannot transmit an impulse, or at least can't transmit it well. Not too long ago, though, it was discovered that non-myelinated fibers can conduct impulses such as pain, she points out. 'We now know that babies are not physiologically protected against painful stimuli," she says. "Although their nerves are to some extent immature and the organization of their nervous system may also be immature, we should not assume that it's not processing information.''

These findings could have a major impact on the treatment of premature infants, who unlike healthy newborns can be subjected to more frequent and equally invasive procedures as circumcision during their sometimes lengthy stays in neonatal intensive care units.

Porter recently received a two-

year \$150,000 grant from the National Institutes of Health to study the impact of required, but presumably painful, medical procedures on premature newborn infants in intensive care. She also will evaluate the efficacy of using local anesthesia — routinely used in older children and adults for these same procedures to minimize pain and physiological fluctuations.

Betsy McDonald

## Rare skin disease awareness week scheduled for Dec. 1-7

The U.S. Congress, by joint resolution, has designated the week of Dec. 1-7 as "National Epidermolysis Bullosa Awareness Week."

Epidermolysis Bullosa (EB) is a rare genetic disorder that causes ainful blisters to form over almost the entire body as well as in the mouth, digestive and urinary tracts. It's often called the "thin-skin" disease, because blistering can be caused by just the slightest touch or accidental contact. It is estimated that one out of every 50,000 infants is born with EB. The fatality rate is high. EB, a lifelong disorder, causes severe physical, emotional and financial hardships for the afflicted patients and their families "Although EB remains incurable, advances in new drugs and dressings have helped extend the lives and improve life for EB patients," says Eugene Bauer, M.D., professor of dermatology and director of Washington University's center for research and treatment of EB.

established one of the country's first centers for the study of EB. It is one of four centers to receive a five-year grant of more than \$500,000 to direct a national patient registry that will provide statistical and general in-



Fran Porter, Ph.D., research associate in pediatrics, has evidence that refutes the notion that infants don't feel pain when undergoing circumcision.

ing post-circumcision restraint and resting periods.

The most invasive procedures, when the clamp was attached to the foreskin and during lysis, when adhesions that hold the foreskin were cut away, were associated with the most significant changes in the cries. In addition to becoming higher pitched, the cries also became shorter, more rapidly repeated, more turbulent and less harmonically melodic. Porter concludes that the cries of babies who are briefly but acutely stressed, as during circumcision, parallel the cries of babies who are more chronically stressed due to such complications as hydrocephalus, fetal malnutrition or some chromosomal disorders.

To measure the changes in cries, Porter produced sound spectrograms,

Washington University in 1983

formation about EB. Also, the local center has been testing several new products that seem to help some EB patients.

EB awareness week has been established to raise the public's consciousness of the disease and its devastating effects, in hopes that new funds essential to research will be made available. The federal government has allotted almost \$4 million for EB research in fiscal year 1987.

Highlighting the week's activities will be the Dystrophic Epidermolysis Bullosa Research Association's (D.E.B.R.A.) national conference, held in New Orleans in conjunction with the annual meeting of the American Academy of Dermatology. The Dec. 5-6 conference will feature discussion on clinical research and therapy, government funding and an open forum on living with EB.

## Bensinger named interim dental dean

David A. Bensinger, D.D.S., executive associate dean of the Washington University School of Dental Medicine, has been appointed interim dean.

The appointment, effective Jan. 1, 1987, was announced by William H. Danforth, chancellor of Washington University. Bensinger replaces George D. Selfridge, D.D.S., who is taking a year's leave of absence prior to his retirment in December 1987.

"We are all appreciative of Dr. Selfridge's decade of service," says Danforth. "He has earned the respect and affection of all who have worked with him."

Selfridge, a retired naval officer with the rank of Rear Admiral, served as dean of the School of Dental Medicine for ten years. He also acted as chief of dentistry at Barnes and Children's hospitals, sponsoring institutions of the Washington University Medical Center. He will continue to serve on the executive committee of the Missouri Health Coordination Council, to which he was appointed by Gov. John D. Ashcroft.

Bensinger, former associate dean for planning and development at the school, specializes in periodontics, the diagnosis and treatment of diseases of the gums and supporting structures of the teeth.

"Dr. Bensinger has been an outstanding member of Washington University's faculty for 37 years," says Danforth. "He knows the School of Dental Medicine extremely well, and, as such, will be invaluable to its leadership. We are confident that, as interim dean he will keep the school's programs moving forward in attracting qualified students, developing research activity and maintaining the present excellence of

our faculty."

Bensinger came to Washington University in 1949 as an instructor of dental medicine. He was named an associate professor in 1956, and also served on staff at Barnes and Jewish hospitals.

He received his undergraduate degree from Washington University and went on to earn his dental degree from St. Louis University School of Dentistry in 1948. He also received a degree in health systems management from the Harvard Graduate School of Business Administration in 1977.

Bensinger has served as president of the Midwestern Society of Periodontists and of the Missouri Dental Association. He is a member of numerous professional organizations, including the International Association of Dental Research and the Royal Society of Medicine in England. He is a fellow of both the American College of Dentists and the International College of Dentists.

He was named 1968 Alumnus of the Year by the Washington University Alumni Association, which honored him for his work to prevent closure of the School of Dental Medicine. Bensinger had formed a special faculty committee to present suggestions to the Board of Trustees for keeping the dental school open.

In 1971, he received the Greater St. Louis Dental Society's Service Award in recognition of his seven years as editor of the society's bulletin. He has served as a Missouri delegate to the American Dental Association House of Delegates, and in 1970 was appointed to the Dental Education Review Committee of the National Institutes of Health.

## Frey, Zarkowsky assume additional responsibilities at Children's Hospital

Ted W. Frey, executive vice president of Children's Hospital at Washington University Medical Center, has assumed the additional responsibilities of chief operating officer, Ronald G. Evens, M.D., president and chief executive officer, announced.

Under the reorganization, Frey becomes responsible for hospital operations including patient care facilities and planning and support services. He will continue to be responsible for fiscal operations. Evens will continue to oversee long-range planning, marketing and public relations, medical coordination, government relations, development and relations with Washington University Medical Center. In further organizational changes, Harold S. Zarkowsky, M.D., vice president of medical coordination, will assume responsibility for the operation of the emergency room and ambulatory care programs. Frey has been associated with the hospital for 15 years. He is a member of the hospital subcommittee of the Missouri Department of Social Services Division of Medical Services and serves on committees of the Hospital Association of Metropolitan St. Louis, the Missouri Hospital

Association and the National Association of Children's Hospitals and Related Institutions. He was first vice president and past treasurer of the St. Louis Association for Retarded Citizens and is past president of the St. Louis Chapter of the Health Care Financial Management Association.

A certified public accountant, Frey holds a bachelor of science degree in business administration from the University of Missouri-Columbia. He is a recipient of the Robert R. Reeves Award of the Healthcare Financial Management Association for contributions to that organization.



**'Tis the season:** Rodney Pleasant (left), mail clerk; Jack Doll (center), manager of the School of Medicine post office; and John J.H. Worth, mail clerk, are ready for the Christmas mail rush. Medical school employees can purchase Christmas stamps and mail their packages — excluding overseas mail — directly from the post office, located on the first floor, McDonnell Medical Sciences building. Not pictured is Marshall Moss, mail clerk.

## New research fund, lectureship to honor C. Ronald Stephen

A special fund has been created at Washington University School of Medicine to honor C. Ronald Stephen, M.D.C.M., professor emeritus of clinical anesthesiology. Stephen established and headed the school's Department of Anesthesiology.

The C. Ronald Stephen Lectureship and Clinical Research Fund in Anesthesiology will be used to support clinical research in anesthesiology at the School of Medicine and to sponsor annual visits by distinguished speakers in anesthesiology and related fields. The endowment, developed by Stephen's friends and former colleagues, residents and stuor this exceptional individual in a way that will continue the quest for knowledge that he so faithfully practiced.''

Stephen came to the School of Medicine in 1971 as the Mallinckrodt Professor of Anesthesiology and head of the department. He also served as chief of anesthesiology at Barnes Hospital, a sponsoring institution of the Washington University Medical Center. After retiring from Washington University in 1980, he served five years as chief of anesthesia at St. Luke's Hospital.

He received his medical degree from McGill University in Montreal, Canada, in 1940, and received a diploma and certification in anesthesiology from the Royal College of Physicians and Surgeons in 1946 and 1947.

Zarkowsky is a graduate of Washington University School of Medicine. He joined the Children's Hospital medical staff in 1968 as a member of the division of hematology/oncology and is medical director of the hospital blood bank. He also is an associate professor of pediatrics at Washington University School of Medicine.

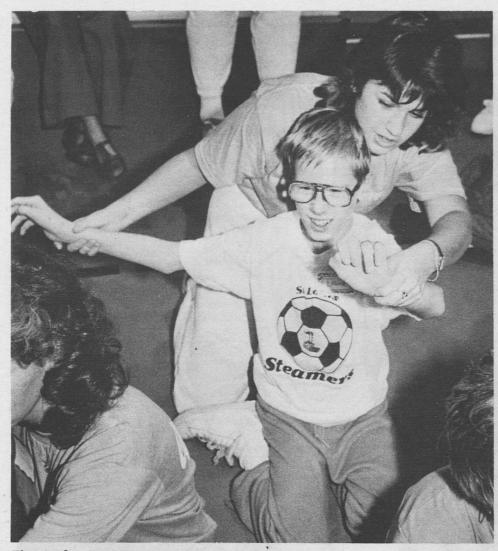
His research interests include abnormalities of the red blood cell membrane and hereditary anemias. Zarkowsky recently was appointed to the Missouri Genetic Advisory Committee as a specialist in sickle cell anemia. dents, was announced on Friday, Nov. 14, at a symposium titled "Anesthesia and the Geriatric Patient."

"There have been four or five pioneers in the field of anesthesiology, and Dr. Stephen is one of them," says William D. Owens, M.D., Mallinckrodt Professor and head of the Department of Anesthesiology. "He has engineered so many significant clinical breakthroughs that it is impossible to enumerate them. Through his research, teaching, writing, and speaking engagements throughout the world, he was a major force in bringing the field to the high level that it has achieved.

"Dr. Stephen helped introduce many new anesthetic agents and drugs, as well as concepts, to the medical community. Now that he is retired, it is only fitting that we honThe founding editor of Survey of Anesthesiology, one of the leading journals in its field, Stephen served as editor from 1957-1984, and is still a member of the editorial board. In 1982, he received the Distinguished Service Award from the American Society of Anesthesiologists.

He is a member of numerous professional societies, including the International Anesthesia Research Society, and is a fellow of the American College of Anesthesiology and of the Faculty of Anesthetists, Royal College of Surgeons. A world renowned lecturer and writer, Stephen has written more than 160 scientific papers, with an emphasis on pediatric and geriatric anesthesia.

# MEDICAL RECORD



**Fitness fun:** Washington University Occupational Therapy students recently took part in a "Reach for Fitness" workshop with fitness enthusiast Richard Simmons. The day-long workshop was sponsored by the Special Recreation Council of Greater St. Louis for developmentally disabled persons in the St. Louis area. Linda Zvibleman (above), senior occupational therapy student, "works out" with David Hayes, a Special School District student.

## David Perlmutter studies enzyme disorder with Nabisco Scholar award

David H. Perlmutter, M.D., assistant professor of pediatrics, cell biology and physiology at the medical school, has been named one of three 1986 recipients of RJR Nabisco Research Scholars Awards. He is an assistant in pediatrics, Division of Gastroenterology and Nutrition, at Children's Hospital.

The awards were established by RJR Nabsico Inc. to aid young scientists in research related to immunology and chronic pulmonary disease. The awards were announced by corporate executives in Winston-Salem, N.C.

Perlmutter will receive an unrestricted award of \$75,000 annually for three years to fund his studies of molecular regulation of alpha-1-antitrypsin during inflammation and of the cellular defect in alpha-1-antitrypproducing too much tissue destruction.

In alpha-1-antitrypsin deficiency, an inherited disorder, low circulating levels of this inhibitor allow destructive enzymes to function in an uncontrolled manner. Due to the complex chemistry of alpha-1-antitrypsin, this destruction appears to mainly affect the tissues of the lung and liver, producing emphysema in adults and chronic liver diseases in infants and children.

The trait for this disorder may be found in one of every 2,000 Americans. Several forms of pharmacological treatment are under investigation but none have shown clear efficacy to date. Gene replacement therapy has been proposed as a possibility.

"Our work is based on the hope that this disorder can be controlled by treatment that does not resort to replacement of an organ or a gene. Therefore, our studies are designed to understand the factors which affect alpha-1-antitrypsin during daily bodily processes and during inflammation in normal and deficient individuals." Perlmutter said.

## Researchers play key role in new Alzheimer's consortium

Four Washington University researchers are helping to design a new national program to develop uniform criteria for diagnosing Alzheimer's disease that may be used in creating a national registry of patients.

The Consortium to Establish a Registry for Alzheimer's Disease combines efforts of physicians and scientists at 15 leading institutions, including all 10 federal Alzheimer's Disease Research Centers (ADRC). The consortium is funded by the National Institute on Aging and coordinated through Duke University in Raleigh, N.C.

The consortium is establishing standardized criteria and tests for Alzheimer's disease with the goal of building a model registry containing data on patients with Alzheimer's disease. The program also plans to establish facilities for training professional and technical personnel to follow procedures developed by the consortium and documented as reliable.

Washington University's ADRC, like other participating centers, will contribute 40 patients and 40 control subjects to the study. However, four faculty members are playing a key role in the study design, working on each of the consortium's three task forces. They are John Morris, M.D., assistant professor of neurology at the School of Medicine; Leonard Berg, M.D., professor of neurology and director of the Washington University ADRC; Martha Storandt,

## Psychiatrist seeks volunteers for depression treatment study

A psychiatrist at the School of Medicine is seeking volunteers to participate in a study comparing three different therapies in treating depression of moderate severity.

George E. Murphy, M.D., professor of psychiatry, has received a grant totaling over \$300,000 from the National Institute of Mental Health to conduct the study.

Following assessment and acceptance into the program, volunteers will be randomly assigned to cognitive therapy, relaxation therapy or antidepressant medication. Murphy is studying the different ways in which these three treatments work in relieving milder forms of depression.

Participants must be between the

Ph.D., professor of psychology; and Philip Miller, Ph.D., associate professor of biostatistics in preventive medicine.

Morris and Berg both serve on the clinical task force, which is developing standarized criteria for physicians to use in diagnosing Alzheimer's disease. Morris chairs the clinical group, which also will develop a clinical assessment battery, including a standarized mental status examination, a clinical history, and a neurological and psychiatric examination.

Storandt is a member of the neuropsychologic task force, which is studying tests that measure cognitive function to determine which are most useful and reliable. Cognitive function tests — necessary to diagnose Alzheimer's — measure aspects of memory, orientation, language and behavior. Miller works with the methodology task force. That group is developing statistical and epidemiological methods for standardizing tests used to diagnose Alzheimer's, and maintaining the consortium's data base.

Washington University was designated a federal Alzheimer's Disease Research Center in 1985, with five-year funding of more than \$3.7 million. Alzheimer's disease affects an estimated 2 million Americans and is the most common cause of intellectual impairment and institutionalization among the elderly.

ages of 18-60, suffer from a moderate degree of depression with no other psychiatric complications, and cannot be taking medication when entering the study. They must be willing to accept the random treatment assignment and be able to attend weekly treatment sessions.

All patients will receive treatment for up to 16 weeks at no charge. Any further treatment required would be at the patient's own expense, but Murphy says most participants should be doing well after 16 weeks.

For further information about the study or to enroll, call Pam Drevets at 362-2425.

sin deficiency.

Alpha-1-antitrypsin is a protein which combines with destructive enzymes to render them inactive. During usual daily bodily processes, enzymes destroy old tissue so that it can be replaced and remodeled by new tissue structures. Alpha-1-antitrypsin prevents such enzymes from

## Lintz receives Frank Scholarship

Gordon E. Lintz was named the 1986-87 recipient of the Robert E. Frank Scholarship in Hospital Administration at Washington University School of Medicine. The scholarship is awarded annually on the basis of professional promise, academic performance and financial need to fulltime, second-year students in the health administration program.

Lintz, a native of Madison, N.C.,

received his bachelor's degree from Wake Forest University in Winston-Salem, N.C.

The scholarship was established in 1984 by the Barnes Hospital Auxiliary in honor of Robert E. Frank, former Barnes president and assistant professor for the Washington University School of Medicine's Health Administration Program.

## Cancer biologist awarded grants to study heat and x-ray treatments

Joseph L. Roti Roti, Ph.D., associate professor and chief of the Cancer Biology Section in the Division of Radiation Oncology at the School of Medicine's Mallinckrodt Institute of Radiology, has been awarded \$1,350,980 over a five-year period with two research grants from the National Cancer Institute to study the effects of hyperthermia — the use of heat to shrink cancerous tumors on cell structure.

The first grant will allow Roti Roti and co-researchers to study the effects of radiation and hyperthermia on nuclear organization and function. The study will determine if heat- and x ray-induced changes inhibit cell reproduction. With the second grant, Roti Roti will study the correlation between heat-induced changes in nuclear proteins and growth delay in cancerous tumors. "Our overall goal," says Roti Roti, "is to explain the biological mechanism of therapeutic methods."

Roti Roti was an associate professor in the Department of Radiology at the University of Utah School of Medicine in Salt Lake City before being appointed to his present position at Mallinckrodt in 1985. He is the recipient of a number of research grants in cell kinetics and structure and has contributed nearly 50 publications to the literature of biophysics.



**Peter Adler,** Ph.D., visiting associate professor in sociology, recently returned from Washington, D.C., where he served as a consultant to the National Institute of Mental Health on "ethnographic approaches to the study of the homeless." **Kevin Herbert,** Ph.D., professor and chair of the Department of Classics, is giving a series of seven lectures on Sunday mornings, Oct. 26 to Dec. 7, at Ladue Chapel on "The Religions of Antiquity — Egypt to Early Islam." On Nov. 10 he gave a lecture

**Ben Barzilai**, M.D., assistant professor of medicine, has been elected a fellow in the American College of Cardiology. He is on staff at Barnes Hospital, a sponsoring institution of the Washington University Medical Center.

Joseph P. Bianco, Ph.D., assistant professor of French, wrote an article, titled "Zadig et l'origine du conte philosophique: Aux antipodes de l'unite," which appears in the November issue of the French journal Poetique. On Oct. 23, he delivered a paper, titled "The Unvisioned Poet: Rimbaud's Middle Year," at the 19thcentury French Studies Colloquium at the University of Nebraska in Lincoln.

Alfreda Brown, counselor and manager of the career information system at the Career Center, made a presentation, titled "Minority Students: Dealing with the Majority," at the Missouri College Personnel Association Conference in Columbia, Mo., held Oct. 26-28. The presentation dealt with the quality of college life experienced by black students attending predominantly white student campuses. The session examined the characteristics of today's black students and presented suggestions for programs to help make campus life more satisfying for them. Brown and Ellen Krout-Levine, another career counselor at the center, led a session on "Computerizing a Career Center" at the conference. The session described the results of a three-year project to automate client and company information for a career planning and placement office.

Nicholas C. Burckel, Ph.D., director of Public Services and Collection Development for the Washington University Libraries, presented a paper, "Anatomy of Historical Records Repositories in the United States" at the 46th annual meeting of the American Association for State and Local History, held Oct. 2 in Oakland, Calif.

#### Cornell H. Fleischer, Ph.D.,

chair of the Department of Classics, is giving a series of seven lectures on Sunday mornings, Oct. 26 to Dec. 7, at Ladue Chapel on "The Religions of Antiquity - Egypt to Early Islam." On Nov. 10 he gave a lecture to the Washington University Emeritus Society on the Greek and Roman coins in the Wulfing Collection; and on Nov. 18 he talked to the Undergraduate History Club on the Pacific campaigns of World War II. He published his memoirs on the air war in the book Maximum Effort: The B-29's Against Japan (1983). In the book he criticizes the use of the atomic bombs on the grounds that Japan already was defeated when the devices were dropped.

**Pascal A. Ifri**, Ph.D., assistant professor of French, delivered a paper titled "Les Manipulations temporelles dans *Voyage au bout de la nuit*" at the fifth international colloquium on Louis-Ferdinand Celine in Paris.

Lucian Krukowski, Ph.D., professsor of philosophy, presented a paper titled "Eroticism, Pornography, and Rating Films" at the annual meeting of the American Society for Aesthetics in Boston. He also is presenting a paper titled "Kant, 'Form', and the American Avant-garde" at the American Catholic Philosophers Association meeting in Bridgeport. His paper "Hegel, 'Progress', and the Avant-Garde'' was published in the spring 1986 edition of the Journal of Aesthetics and Art Criticism. His paper "Aufbau and Bauhaus"; Essentialism in Art and Philosophy" was published in The Reasons of Art, Annals of the X International Congress in Aesthetics.

**Stamos Metzidakis,** Ph.D., assistant professor of French, recently gave a lecture at L'Universite de Tours, France. His lecture was titled "Un defi pedagogique a l'americaine."He is a fellow for the 1986 fall term at the Camargo Foundation in Cassis, France, where he is writing another book on ideology, rhetoric and interpretation.

James G. Miller, Ph.D., professor of physics and research associate professor of medicine, recently served as a guest faculty member for the Harvard Medical School's Update in Echocardiography 1986. Eighteen Harvard faculty members and seven guest faculty members presented a comprehensive summary of the most recent advances in the field of cardiac ultrasound imaging and Doppler flow studies during the three-day course, which was attended by about 200 cardiologists from across the nation. James F. Poag, Ph.D., professor of German, gave a talk on Gottfried von Strassburg's "Tristan" at the Conference on Christianity and Literature held Oct. 17-19 in Minneapolis, Minn.

Eli Robins, M.D., Wallace Renard Professor in the Department of Psychiatry, was presented an achievement award from the American Academy of Clinical Psychiatrists at their recent annual meeting. The award is presented for excellence in research, teaching and leadership, and has been awarded to only one other person besides Robins.

**Thomas Schiff**, D.M.D., associate professor in the Department of Dental Diagnostic Services and head of dental radiology at the School of Dental Medicine, was inducted as a fellow of the International College of Dentists at their convocation, held Oct. 18 in Miami, Fla.

**Colette H. Winn,** Ph.D., assistant professor of French, presented a paper titled "L'art du debat dans l'*Heptameron*" at the 21st International Congress of Medieval Studies in Kalamazoo, Mich. Winn served as assistant director of the University's Summer Institute.

Richard N. Rosett, dean of the Faculty of Arts and Sciences, has been elected chairman of the board of directors of the National Bureau of Economic Research, Cambridge, Mass.

The bureau is a private, non-profit research organization that is devoted to objective, quantitative analysis of the American economy. Rosett has been a member of the organization's executive committee since 1977.

The bureau publishes The Report, a quarterly magazine geared

## **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.

Orders grow but factory jobs shrink: Recovery seems just beyond reach for United States manufacturers, says the Oct. 6 USA Today. AcDavid H. Wood, D.V.M., Ph.D., associate veterinarian for University Facilities, Office of Laboratory Animal Care, was awarded the Sir Henry Wellcome Medal and Prize by the Association of Military Surgeons for his paper titled "Radiation Risk Assessment for Military Space Crews." The annual award, established in 1916, is for original work in the field of military medicine. Wood joined the faculty on Oct. 1 upon his retirement after 26 years of active duty in the U.S. Air Force. He was formerly chief of the Radiation Biology Branch at the U.S. Air Force School of Aerospace Medicine in San Antonio, Texas.

## 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, highestearned degree, current title and department along with a description of your noteworthy activity to Notables, Campus Box 1070. Please include a phone number.

#### Rosett elected chair of research bureau Richard N. Rosett, dean of the toward a technical audience, and The

Digest, a monthly newsletter for laypersons. In operation since 1920, the bureau has 250 researchers in the United States and overseas and cir-

United States and overseas and circulates their working papers to libraries, universities and various corporate sponsors. Research projects currently under way include studies in labor, productivity, taxation, economics of aging, health economics, economics of fluctuation and international studies.

A new clot-dissolving drug that gives doctors a weapon against heart attacks is discussed by Burton E. Sobel, M.D., Tobias and Hortense Lewin Professor of Cardiovascular Diseases. In an Oct. 16 article from the Louisville Courier-Journal, Sobel says that in the past two years, tests have consistently shown that tissue plasminogen activator (tPA) opens the plugged coronary arteries of 70 percent of patients within one hour of

associate professor of history, recently made a presentation on "Administrative Experimentation in the Reign of Sultan Suleyman the Lawgiver," at the Fourth International Kongress fur Turkische Wirtschafts-und Sozialgeschichte (1071-1920), in Munich, Germany. He also spoke on "Kul and Ehl-i Kalem in the 16th Century" at the 10th Congress of the Turkish Historical Association, held in Ankara, Turkey. This summer he was awarded a research grant by the American Research Institute in Turkey, and he also received a nine-month Fulbright Islamic Civilization Research Grant for research on the ruling elite of the Ottoman Empire in the reign of Sultan Suleyman the Lawgiver, in Istanbul. In addition, he was awarded a five-month Social Science Research Council grant for research on the ruling elite of the Ottoman Empire in the reign of Suleyman the Lawgiver.

Aimee J. Luebben, instructor in the Program in Occupational Therapy, Department of Preventive Medicine and Public Health, and Robyn Oeth, occupational therapist at the Irene Walter Johnson Institute of Rehabilitation, presented two papers: "Software Analysis for Clinical, Educational and Home Utilization" and "People, Equipment, and Financial Resources for Inexpensive Technology" at the Fourth Annual Computer Technology for the Handicapped International Conference sponsored by Closing The Gap. The conference was held Oct. 23-25 in Minneapolis.

cording to the story, Murray L. Weidenbaum, Ph.D., director of the Center for the Study of American Business, is quoted saying that the unemployment numbers show "it's a so-so economy without much oomph."

"Stacking the federal court system" is the title of an OpEd piece by Merton Bernstein, Ph.D., Walter Coles Professor of Law, in the Oct. 14 issue of the Christian Science Monitor. Bernstein says that the current process for selecting nominees for the higher federal courts including the Supreme Court — is controlled by the U.S. attorney general. He adds that this is inappropriate because of political influence. The principal litigant in the federal courts should have no role in selecting federal judges, he notes. the start of treatment for a heart attack in progress.

A new surgical technique to correct a common heart ailment has enjoyed a degree of success in its first human subject at Barnes Hospital, says a United Press International Oct. 14 national wire story that appeared in numerous newspapers. The surgical procedure was developed to correct atrial fibrillation, which occurs when the two upper chambers of the heart beat in a rapid, irregular manner. While many people lead normal lives with this heart ailment, it reduces the efficiency of the heart and leads to many strokes. James L. Cox, M.D., head of the Division of Cardiothoracic Surgery, says he developed the surgical technique after several years of research.



## **ECTURES**

#### Thursday, Dec. 4

8:45 a.m. International Affairs Program Executive Seminar, "China Trade and Investment: Strategies for Success in 1987." 101 Simon Hall. For more info., call 889-6727.

**9:30 a.m. Division of Cardiovascular Diseases Visiting Professor Lecture**, "Treatment of Ventricular Arrhythmias Following Myocardial Infarction," Mark E. Josephson, chief, cardiovascular section, U. of Pennsylvania Medical School. Clopton Aud.

1:10 p.m. George Warren Brown School of Social Work Lecture, "The Juvenile Sex Offender: Facts and Myths," Robert Pierce, WU assoc. prof. of social work. Brown Hall Lounge.

4 p.m. Dept. of Philosophy Lecture, "The Bodily Basis of Metaphor," Mark Johnson, prof. of philosophy, Southern Illinois U.-Carbondale. Women's Bldg. Lounge.

**4 p.m. Dept. of Chemistry Seminar,** "Applications of NMR to Molecular Dynamics," Robert G. Bryant, prof. of chemistry, U. of Rochester Medical Center. 311 McMillen.

4 p.m. Dept. of Earth and Planetary Sciences Charles W. Buescher Memorial Colloquium, "Venus and Earth: Why Are the Tectonics Different?" Roger J. Phillips, prof. of geological sciences, Southern Methodist U. 102 Wilson.

**8 p.m. Gallery of Art Lecture**, "After the Images — New Tendencies in German Art," Wolfgang Faust, German art critic. Also sponsored by the Goethe Institute St. Louis. Steinberg Aud.

#### Friday, Dec. 5

9 a.m. International Affairs Program/Engineering and Policy Lecture, "The Computer Revolution in China," Denis Fred Simon, Ford International Asst. Prof. of Management, Sloan School of Management, MIT. 104 Lopata.

1:10 p.m. George Warren Brown School of Social Work Lecture, "Racial and Personal Identity in the Black Experience," Leon Chestang, dean of the school of social work, Wayne State U. Brown Hall Lounge.

6 and 8:30 p.m. WU Association Film Travel Lecture Series, "Great Britain's Great Canals," Fran and Brooke Reidelberger, filmmakers. Graham Chapel. For ticket info., call 889-5122.

7 p.m. Latin America Forum Series, "The Sanctuary Movement," Angie O'Gorman and Jean Abbott, speakers. Lambert Lounge, Mallinckrodt Center.

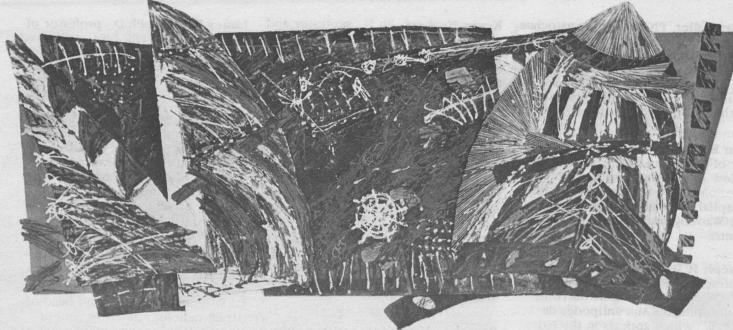
#### Monday, Dec. 8

**3 p.m. Dept. of Chemical Engineering and Biochemical Engineering Lab Seminar,** "Chemicals From Biotechnological Processes," George T. Tsao, prof. of chemical engineering, Purdue U. 100 Cupples II.

4 p.m. Dept. of Psychology Colloquium, "Remindings in Learning and Instruction," Brian Ross, dept of psychology, University of Illinois at Urbana. 102 Eads.

#### Tuesday, Dec. 9

**4 p.m. Dept. of Chemistry Seminar**, "Laser Probing of Chemical Dynamics," Stephen R. Leone, prof. of chemistry, U. of Colorado. 311 McMillen.



**Faculty show:** Joan Hall, lecturer in art, is the featured artist in the annual "Faculty Show" on exhibit through Dec. 28 in the Gallery of Art, upper gallery. The School of Fine Arts sponsors the show, featuring its own faculty along with artists from the School of Architecture and the Department of Art and Archaeology. Hall's medium is cast (handmade) paper, which is shown above in her piece titled "39128." Painting, sculpture, prints, mixed media and drawings also are represented in the exhibit. For more information, call 889-4523.

"Early Modernist Architecture in St. Louis: William Adair Bernoudy." Through Dec. 7. Gallery of Art, lower gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4523.

**"Faculty Show."** Through Dec. 28. Gallery of Art, upper gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 889-4523.

"Recent Photographic Acquisitions." Through Dec. 28. Gallery of Art, print gallery. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends.

"Washington University Postcards Showing Photographs Taken by Michael I. Haber, WU Fine Arts Student." Through Dec. 5. Campus Stores' Quad Shop, Mallinckrodt Center. Open during business hours.

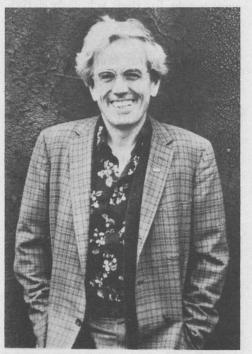
## PERFORMANCES

#### Thursday, Dec. 4

**8 p.m. Student Dance Concert** at the Dance Studio, 207 Mallinckrodt. (Also Dec. 5-7, same time, Dance Studio.) General admission is \$3; WU community and senior citizens, \$2. Free for children 12 and under. For more info., call 889-5858.

#### Friday, Dec. 5

8 p.m. Edison Theatre Presents Robert Ashley's "Atalanta." (Also Sat., Dec. 6, same time, Edison.) General admission is \$15; WU faculty/staff and senior citizens, \$10; students, \$7. For more info., call the Edison Theatre box office at 889-6543.



## FILMS

Dec. 4-13

#### Thursday, Dec. 4

7 and 9:15 p.m. WU Filmboard Series, "La Grand Illusion." \$2. Brown Hall.

Friday, Dec. 5

7 and 9:15 p.m. WU Filmboard Series, "Hannah and Her Sisters." \$2. Brown Hall. (Also Sat., Dec. 6, same times, and Sun., Dec. 7, at 7 p.m., Brown.)

**11:30 p.m. WU Filmboard Series**, "The Last Tango in Paris." \$2. Brown Hall. (Also Sat., Dec. 6, same time, and Sun., Dec. 7, at 9:15 p.m., Brown.)

#### Friday, Dec. 12

7 and 9:30 p.m. WU Filmboard Series, "Silverado." \$2. Brown Hall. (Also Sat., Dec. 13, same times, and Sun., Dec. 14, at 7 p.m., Brown.)

**Midnight. WU Filmboard Series,** "Gold-finger." \$2. Brown Hall. (Also Sat., Dec. 13, same time, and Sun., Dec. 14, at 9:30 p.m., Brown.)



#### Saturday, Dec. 6

8 p.m. Dept. of Music Annual Madrigal Christmas Concert with Orland Johnson, director, Holmes Lounge.

#### Monday, Dec. 8

8 p.m. Dept. of Music Student Chamber Music Concert with William Martin, director. Graham Chapel.

#### Tuesday, Dec. 9

8 p.m. Washington University Mixed Choir Concert. Graham Chapel.

present "Keyboard Reflections of Russia." Women's Bldg. Lounge. Cost is \$2 for members and \$3 for their guests. For reservations and more info., call Coreen Motard, 645-2022, or Floreine Mains, 966-4763.

#### Monday, Dec. 8

**10 a.m. Newman Center Day of Recollection**, "Advent and Mary: Time and Person in Waiting," Sister Marya Pohlmeier and Father Kieran Adams. First session: 10 a.m. ending with 12:05 p.m. Mass. Second session: 2 p.m. ending with 4 p.m. Mass. Reconciliation service at 7 p.m. For more info., call 725-3358.

#### Wednesday, Dec. 10

7-10 p.m. 40in/40out Program Jazz-Potluck Study Break and Project Umoja's Annual Kwanzaa Celebration. The Gargoyle, Mallinckrodt Center. For more info., call 889-4664.

#### Calendar Deadline

The deadline to submit items for the Dec. 18-Jan. 17 calendar of the *Washington University Record* is Dec. 11. 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. Address items to King McElroy, calendar editor, Box 1070.

### Dance concert features original student works

Students at Washington University will present a student dance concert at 8 p.m. Thursday, Dec. 4, through Sunday, Dec. 7, in the dance studio, Room 207, in the Mallinckrodt Center The concert, titled "QUESTIONS-ANDANCERS,' is sponsored by Student Union and the student drama club, Thyrsus. Co-producers of the concert are dance majors Craig Liddle and Brian Levy. Students will perform original solo and group choreography with music including the rock sound of Peter Gabriel and original scores written especially for the concert. The program will include an original performance art piece. Admission is \$2 for faculty, staff, students and senior citizens; \$3 to the general public; and free for children 12 and under.

7 p.m. W.E.B. DuBois Lecture Series, "The Psychological State of Black America," Alvin Poussaint, assoc. prof. of psychiatry, Harvard U. Sponsored by the African and Afro-American Studies Program. Simon Hall Aud.

#### Wednesday, Dec. 10

4 p.m. McDonnell Center for the Study of Higher Brain Functions Visiting Scientist Special Lecture, "Adaptations of Glucose Transport at the Blood Brain Barrier in Relation to Metabolism," Jill Cremer, medical research council laboratories, Carshalton, Surrey, England. Erlanger Aud.



"Beckett at 80," an exhibit of books and manuscripts drawn from the Samuel Beckett Collection. Through Dec. 31. Special Collections, Olin Library. 8:30 a.m.-5 p.m. weekdays. Composer Robert Ashley, creator of "Atalanta," appears in the comic opera Dec. 5-6 in Edison.

#### Sunday, Dec. 7

**2-5 p.m. Performing Arts Auditions** for "The Lover" and "No Exit" will be held in 208 Mallinckrodt Center. (Also 7-11 p.m. Mon., Dec. 8, 208 Mallinckrodt.)



#### Friday, Dec. 5

6 p.m. WU Lopata Classic Men's Basketball Tournament. (Also Sat., Dec. 6.) Field House.

#### Saturday, Dec. 6

11:30 a.m. Men's and Women's Swimming and Diving, WU vs. U. of Arkansas at Little Rock. Millstone Pool.

#### Tuesday, Dec. 9

**5:30 p.m. Women's Basketball,** WU vs. Maryville College. Field House.

7:30 p.m. Men's Basketball, WU vs. Maryville College. Field House.



#### Friday, Dec. 5

12:30 p.m. Woman's Club's Mini-Luncheon. St. Louis pianist Mrs. Francine Wishart will For more information, call 889-5858.