PAA summer workshops offer dance and drama training

The WU Performing Arts Area will offer Dance Theatre Central, a summer program of dance and drama workshops, June 11-30, in the Mallinckrodt Center.

All classes meet daily, Monday through Saturday. Dance offerings include modern dance, ballet/jazz and applied anatomy and kinesiology. Drama workshops will be taught in acting, stage movement and new scripts.

The Arts Forum, a series of evening programs offered three or more times a week, will be open to Dance Theatre Central participants, free of charge.

Mary-Jean Cowell, WU associate professor of dance, is director of the program. Instructors in drama are Hollis Huston, WU artist-in-residence in drama, and C. J. Zander, director and theatrical journalist. Dance instructors are Robert Small, artistic director of Robert Small and the Small Dance Company; and Marianne Battistone, program and training consultant at the Sports Training Institute in New York.

Participants may concentrate in dance or theatre, or select courses from both areas. Five credits will be awarded to students who complete any three workshops. The cost is $640. Students, however, may enroll in any one of the program's workshops for $250 and receive two units of credit.

On campus housing is available. For information, call WU's Performing Arts Area at 889-5858.

Muir named ACE Fellow in administration
Manny Muir, director of the Residential Life Center, has been named an American Council on Education (ACE) Fellow in academic administration.

The ACE Fellowship Program is designed to allow promising faculty and educational staff members to test their abilities in administration. The fellows participate in a year-long internship at a host campus, both observing and working actively with university administrators.

Shea sabbatical to Italy, England will aid research for new book
Daniel B. Shea, professor and chairman of the Department of English, will travel to Bellagio, Italy, and Cambridge, England, on sabbatical for the 1984-85 year.

At the invitation of The Rockefeller Foundation, Shea will spend one month at the foundation's Study and Conference Center in Bellagio to work on the introductory chapter of his book-length manuscript, The American Metamorphoses.

Shea, whose areas of expertise are early American literature and American autobiography, will spend October through June in Cambridge to research the works of William Perkins, Elizabethan Puritan and preacher; George Sandys, treasurer of the Virginia colony and translator of Ovid; and George Berkeley, 18th-century philosopher who spent three years in the Rhode Island colony.

These three men figure prominently in the British background of Shea's book.

Shea joined the WU faculty in 1963 and has been chairman of the English department since 1978.

Megan doesn't know what hearing is. She is unable to respond to speech even when she is wearing a powerful hearing aid.

Conventional hearing aids are ineffective for children like Megan, who are born profoundly deaf. And yet, the three year old turns around when you call her name. She grins when you offer her a cookie and speaks when you ask her a question.

Megan doesn't have telepathic powers. She's one of the few children in the United States using her sense of touch to understand the world, with the help of a new and unusual device called Tactaid.

A tiny vibrating device is pressed lightly to Megan's (above) breastbone to allow her to feel sounds. A small power pack and microphone is attached to her belt. Behind Megan is CID teacher Terri O'Donoghue.

**Tactaid: hearing by the sense of touch**

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A tiny vibrator is pressed lightly against her breastbone by a pair of rainbow-colored suspenders. A small power pack and a microphone fit on her belt. The device sends signals to her body through the vibrator and enables Megan to "feel" sounds like bells, music and her mother's voice — sounds that she could not have hoped to have known a year ago.

"It's a hearing aid for people who would not benefit from a conventional hearing aid," says Janet Weisenberger, leader of the tactile aid research team at the Central Institute for the Deaf. WU's speech and hearing department.

Tactaid is a single channel device, an elementary version of a tactile hearing aid. It tells Megan that...
Inbreeding program saves rare species

The Speke’s gazelle, one of the rarest African antelopes, has been rescued from probable extinction by a bold but calculated program of managed inbreeding that offers hope for scores of other endangered species in captivity.

Geneticist Alan Templeton, WU professor of biology, and Bruce Read, assistant curator at the St. Louis Zoo, had only a few gazelle when they began their effort in 1979, and all the animals had descended from the same male. The choice was dramatic: defy the taboo against inbreeding or watch the graceful creatures lose their show-down with survival.

Templeton devised a breeding program that can be used for any small population — even one male. The animals avoid inbreeding and require at least 250 animals to maintain a healthy population.

In 1984, on Michael Perkins, then director of the St. Louis Zoo, started a breeding program with only four Speke’s in captivity — one male and three females. A decade later, the gazelle was far from flourishing. Average birth weight had dropped and only one in five newborns survived its first year of life — classic signs of inbreeding depression.

Zoologist Read sought Templeton, who had performed advanced genetic theory experiments on fruit flies in Hawaii. Templeton had determined that a species adjusts most rapidly to inbreeding when maximum genetic variation is maintained. In other words, researchers must quickly produce as many offspring as possible from available inbred parents, equalize their genetic representation and maximize the number of genetic combinations in the offspring.

Most species, explains Templeton, have a reservoir of genetic disease. A human without inbred ancestors, for example, carries an average of eight lethal genes for diseases that usually kill before puberty. But those diseases can’t affect offspring unless a union brings together duplicates of the same deadly genes. Speke’s gazelle also bore eight harmful genes 2 apiece.

Another factor is the “Adam & Eve effect,” meaning that a randomly chosen male and female will represent an average 80 percent of all genetic variation in the human species. The original four gazelle represented nearly all of the species’ genetic variation. And given access to maximum variation, the evolutionary process naturally selects genes that transfer the best possible genetic code to the next generation.

Using his fruit fly research as a model, Templeton tested blood samples taken from each newborn gazelle to track the project’s success. The samples yielded DNA — deoxyribo-nucleic acid — the physical matter that carries an animal’s specific genetic code. Recombinant DNA technology allowed Templeton to monitor critical maintenance of genetic variation and check accuracy of breeding.

Now in its third complete generation since the last four captive Speke’s were brought together in 1969, the gazelle is thriving. The current population number is about 22 — 16 in St. Louis and the rest in other U.S. zoos.

The two are using their project’s painstaking documentation to continue other zoos that managed inbreeding is a valid prototype for survival. Templeton and Read are now involved in organizing a symposium on managed inbreeding, with Jonathan Ballou, population manager of the National Zoo at the Smithsonian Institution in Washington, D.C., which will be held at the National Zoo’s breeding facility in Virginia in August 1984.

Templeton is pursuing similar studies with other animals in hopes that they, too, can be saved. “There is purpose in the vast diversity of living things, whether man has figured it out yet or not,” he said. “Every time a species disappears because of man, the world is a little poorer.”

Carrol Radkin

Anthropologist Pilbeam traces human origins research

Internationally recognized anthropologist Sid Pilbeam will deliver the 3ist Robert J. Terry Lecture May 3 at WU’s School of Medicine.

Terry's lecture, “Human Origins Research. Then and Now.” will begin at 4 p.m. in Moore Auditorium, 660 E. Euclid Ave. Alumni and friends established the lectureship in 1938 to honor Terry, who was head of the Department of Anatomy from 1900-41.

Pilbeam, professor of anthropology at Harvard University, has earned an international reputation among scholars for his studies on the origin of man. A native of Britain, his research has focused on the evolution of man and apes, ancient environments and climates, and the history of paleoanthropological ideas. His field research in paleoanthropology has taken him to Egypt, Uganda, Spain, Greece, Kenya and Pakistan.

He has been a member of the faculty at Harvard University since 1981. He also has served at the Kenya National Museums, as scientific director of its International Program for the Study of Human Origins and as interim scientific director of its International Louis Leakey Memorial for African Prehistory.

ROTC cadets receive awards

Sixteen WU Army ROTC cadets received awards April 30 on campus for outstanding leadership. Strength of character, integrity and patriotism, were their traits.

They are: The Department of the Army Superior Cadet Award to Mya K. Mitchell, Tomas A. Dundzillia, and George E. Cone Jr., The Reserve Officers’ Association Award to Mark J. Jacobs and Steven J. Lokengard; The American Legion Award to Jeffrey Zuckerman, Mark A. Telfer and Eden L. Biesel; The Military Order of the World Wars Awards to William J. Weber, Beth S. Levine and John R. Dacey; The Daughters of the American Revolution Award to Joni M. Clouse and The John Wayne Litchum Memorial Award to Franklin Moreno.

Anorexia, bulimia workshop reviews treatments

Treatment of anorexia nervosa and bulimia, two eating disorders, will be examined during a one-day workshop, titled “Anorexia and Bulimia: The Whole Approach,” on Friday, May 18, at Henry VIII Inn & Lodge, 4690 N. Lindbergh.

The workshop, which is designed for health care professionals, is open to the public and is sponsored by the Continuing Education Program of the WU George Warren Brown School of Social Work.

Felix E. F. Larocca, child psychoanalytic child and medical director of the Anorexia and Bulimia Treatment and Education Center at St. John’s Mercy Medical Center in St. Louis, and James E. Mitchell, assistant professor of psychiatry at the University of Minnesota Medical School in Minneapolis, will direct the program.

The workshop is from 9 a.m. to 4 p.m. The registration fee, which includes lunch, is $71; registration before May 8 is $66.

For more information, call David L. Cronin, assistant dean for administration and continuing education, at 889-6606.

Erickson wins ROTC engineers’ award

Elizabeth Ann Erickson, a junior in the WU School of Engineering and Applied Science, has won the Society of American Military Engineers’ ROTC Award for Academic Excellence. She was one of 20 Air Force ROTC cadets selected from more than 600 colleges nationwide to receive the award.

Award winners must be in the top 25 percent of their academic classes and their Air Force ROTC classes. They also are nominated by the commander of their detachment and the dean of their engineering school.

A cadet major, Erickson attends Air Force ROTC classes through Detachment 207 at WU. She holds a four-year ROTC scholarship. It is the second year in a row that a Detachment 207 cadet has been chosen to receive this award.
NOTABLES

Thomas Browdy, assistant director of the Center for the Study of Data Processing, and David Benson, director of WU’s Personal Computer Education Center, made presentations at George Washington University’s School of Government and Business Administration Forum on December 5. Support systems on March 27 in Washington, D.C. Browdy spoke on ‘‘Equipping Managers to Use DSS,” and Benson spoke on ‘‘A Field Study of End-User Computing: Findings and Issues.’’

James W. Fitzgibbon, professor of architecture, has a painting on exhibit in the St. Louis Art Museum’s current display. ‘‘By Heart and Hand: American Folk Art From Missouri Collections。” His work, titled ‘‘Environmetal City.” depicts the cross section of a city in acrylic on board. The exhibit will hang through May 28.

Cornell Fleisher, assistant professor of Middle East history, has received summer grants from the Social Science Research Council and the American Research Institute to pursue research in Istanbul, Turkey, on the rise of the bureaucracy and consolidation of dynastic law in the 16th-century Ottoman Empire.

Lonnie E. Haefner, professor of civil engineering and program coordinator for transportation and urban systems, recently was appointed editor-in-chief of Pergamon Publishing’s editorial board for Civil Engineering Systems and Investment Management. Haefner also was made co-editor of Pergamon’s Blue Ribbon International Journal on Civil Engineering.

Howard Jones, professor of art, has been invited to be a visiting fellow by the Yaddo Corporation of Saratoga Springs, N.Y. One of eight artists selected, he will have a private studio as well as the use of sculptor George Rickey’s workshops to continue painting and calligraphic and environmental works.

David Katz, associate professor and director of the Video Center at the School of Social Work, conducted a workshop, ‘‘Social Services and the Media: Producing Programming for Community Access Cable Televisi- tion.” April 5 at the annual meeting of the Missouri Association of Social Workers in Kansas City. The workshop was designed to acquaint participants with the basic skills of using cable television as a vehicle for providing information and social support for special audiences. Katz will conduct another workshop on the same topic May 25 at WU.

Frank W. Miller, James Carr Professor of Criminal Jurisprudence, will attend the annual meeting of the American Law Institute in May in Washington, D.C. He is currently revising his textbook, The Juvenile Justice System, published by Foundation Press, which will be released in a year. He co-edited the book with three other law faculty, two of whom are WU law school alumni.

Robert O. Dawson of the University of Texas, and Robert T. Parnas of the University of California-Davis,

A. Peter Mutharika, professor of law, will participate in June in a United Nations panel of experts meeting on the ‘‘Progressive Development of the Principles and Norms of International Law Relating to the New International Economic Order” at the Palais des Nations, Geneva, Switzerland.

Mark A. Shayman, associate professor of systems science and mathematics, has received the Donald Eckman Award from the American Automatic Control Council. The award is given in recognition for outstanding control contributions from people under 30.

Patricia K. Shehan, assistant professor of music, presented a paper on ‘‘Balkan Traditional Music and Dance” at the biennial Music Educators National Conference in Chicago, March 20-24. She conducted a clinic on ‘‘Folk Dance for Motor Skill Development” at the Midwest chapter of the National Association of Music Therapy, April 5-7, in St. Louis.

Louis M. Smith and Arthur G. Webster, professors of education and Lloyd Klindinst, lecturer in education, presented a symposium, ‘‘Search for a Paradigm: Education Images of Human Nature and the Human Sciences,” at the American Educational Research Association meeting in New Orleans, April 23-27. Also presenting the symposium were Michelle Herman and Sunny Pervil, graduate students in education, and Carol Klass, a recent doctoral graduate in education.

Joyce Trebilcott, coordinator of women’s studies and an associate professor of philosophy, presented two invited papers during April. She read ‘‘Male Orgasm and Male Domina- tion” at the ‘‘After The Second Sex” conference at the University of Pennsylvania, and ‘‘Notes on the Meaning of Life” at the Society for Women in Philosophy meeting in Cincinnati. Her recent publications include an anthology, Mothering: Es- says in Feminist Theory, and a pamphlet. Taking Responsibility for Sexuality.

Raymond L. Williams, associate professor of Spanish, has been invited to deliver four lectures on contemporary Colombian and Spanish-American novels in June in Medellin, Cali and Bogota, Colombia. He will serve as the only American judge for the National Novel Contest in Colombia, sponsored by the Editorial Plaza y Lunes. He recently contributed three chapters on the Spanish-American novel in the 1970″s for a book, Las Novela Hispanoamericana: Una Vista Panoramica.

Watercolor Courthouse Bill Kohn, professor of art, and Arthur Oser, professor emeritus of art, will exhibits recent works with St. Louis artists Gary Parissine and Steven Sorman in ‘‘Four Men Only.” May 6-10, at the Timothy Burns Gallery, 395 N. Euclid Ave. Kohn’s work includes watercolor and acrylic paintings of bird’s eye views of downtown St. Louis and Chicago. Above is Kohn’s ‘‘Old Courthouse and Equitable.” Oser’s includes his recently published lithograph, ‘‘October’s Gift.” and new oil paintings. A reception will be held from 2 to 5 p.m. Sunday, May 6. For gal- lery hours, call 361-7460.

Tactaid—continued from p. 1

there is a sound occurring, but little else. With practice, however, Megan has begun to distinguish between sounds. Because it helps her to imi- tate others, Tactaid also increases both what she says and what she un- derstands.

After wearing Tactaid almost constantly for a year, Megan’s im- provement has been remarkable. “In her latest testing,” says Weisenberg- er, “Megan moved from below the 90th percentile in language skills among deaf children to above the 70th percentile. Now, that still cannot compare to the language skills of a normal child, but it makes her bet- ter than most hearing-impaired chil- dren her age, even those with some residual hearing. And that’s extreme- ly encouraging.”

CID researchers hope to have a more advanced aid ready for Megan when she outgrows her current mod- el. That next generation may be a two-channel ear mold vibrator cur- rently in experimental use at CID. This model allows the subject to lo- cate the origin of sound through the sense of touch.

But the most advanced tactical aid on the drawing board at CID is the multi-channel vocoder. This aid uses tactile signals to represent 16 differ- ent sound frequencies.

Experiments at other institutions have shown that accuracy in speech perception improves markedly when the vocoder is used in conjunction with lip reading.

There are, of course, drawbacks to all of these tactile aid designs. But researchers remain hopeful. “In terms of the equipment, it’s entirely possible for a highly trained deaf per- son to carry on a somewhat normal conversation using a multi-channel vocoder right now,” says Weisen- berger. “There have been some promising test results in that area. There’s no telling what the ultimate skill of a tactile aid user might be.

Ensemble concert premiers three new works

The WU Percussion Ensemble will present a concert at 8:30 p.m. Sunday, May 6, in Tietjens Rehearsal Hall, 3500 Forsyth Blvd.

The concert is free and open to the public, and will feature six works, three of which were com- posed by ensemble members and will be premiere performances.

Richard L. O’Donnell, WU music instructor and principal percussionist in the St. Louis Symphony Orchestra, is director of the ensemble. For more information, call the music depart- ment at 889-5581.
**CALENDAR**

**May 3-12**

**Friday, May 4**
- 7:30 p.m. Inter-Varsity Christian Fellowship Meeting, Green S. Linn. Wohl Center.

**Sunday, May 6**
- 6 p.m. Intersessional Vesper Service with Paul MacVitie, dir., Protestant Center. Graham Chapel.

**LECTURES**

**Thursday, May 3**

**Friday, May 4**

**4 p.m.** Dept. of Music Lecture, "Musical Process and Musical Theory," Tom Clark, theorist, St. Louis Conservatory. Blevet B-B.

**4 p.m. Immunology Research Seminar, "Cytological Changes in Visceral Activity by Clostridium Typhimurium Following Immune Induction." Bill Hows, WU Dept. of Pharmacology. Microbiology Lib., 509 McDonnell Medical Sciences Bldg., 4565 McKinley.

**Tuesday, May 8**
- 4 p.m. Cell and Molecular Programs Lecture, "Virus Perturbation of Endocrine Function: Disorder of Cell Function Leading to Disturbed Homeostasis," Michael Olshoe, Dept. of Immunology, Scripps Clinical and Research Foundation. Cori Aud. McDonnell Medical Sciences Bldg., 4565 McKinley.

**Wednesday, May 9**
- 8 a.m.-5 p.m. Graduate Piano Recital with Terry Martin. Graham Chapel.

**FILMS**

**Friday, May 4**
- 8 and 10 p.m. WU Filmboard Series, "Monopoly: Python's Meaning of Life." 82 Brown Hall Aud. (Also Sat., May 5, 8, and 10 p.m., and Sun., May 6, at Grace and Peace Fellowship, 6003 Kingsbury.)

**Midnight, WU Filmboard Series, "And Now for Something Completely Different."" 82 Brown Hall Aud. (Also Sat., May 5, midnight, and Sun., May 6, at Grace and Peace Fellowship, 6003 Kingsbury.)

**SPORTS**

**Thursday, May 3**
- 2 p.m. Baseball, WU vs. UMSL. Kelly Baseball Field.

**Friday, May 4**
- 2 p.m. Baseball, WU vs. Harris Stowe College. Kelly Baseball Field.

**Calendar Deadline**

The deadline to submit items for the May 17-22 calendar of the Washington University Record is May 5. Items must be typed and include your name and identification and the title of the event; also include your name and telephone number. Address items to King McClay, calendar editor, Box 1142.

**EXHIBITIONS**

**"Greek Vases." Through the summer. Gallery of Art, print gallery. 10 a.m.-5 p.m. weekdays, 1-5 p.m. weekends.**

**Core Exhibition," freshman and sophomore drawing and design. May 7-29. Box B by Gallery. 10 a.m.-4 p.m. weekdays and 1-5 p.m. weekends.**

**Bach of Fine Arts Exhibition," May 6-20. (Opening Sun., May 6, 3-5 p.m.) Gallery of Art, upper and lower galleries. 10 a.m.-5 p.m. weekdays, 1-5 p.m. weekends.**

**"Lithography and the 19th Century Medical Book." Through May 11. Medical Library Annex, 615 S. Taylor. Open weekdays, 8:30 a.m.-5 p.m.**

**"Goethe's Narrative Works," Through May 31. Olin Library. Special Collections, fifth level. 8:30 a.m.-5 p.m. weekdays.**


**MUSIC**

**Sunday, May 6**
- 8:30 p.m. Percussion Ensemble Concert with Rich O'Donnell, conducting. Tietjens Hall.

**Tuesday, May 8**
- 8 and 10 p.m. Harschotch Graduate Recital with Paul Harris. Art, Grace and Peace Fellowship, 6003 Kingsbury.

**Wednesday, May 9**
- 8 p.m. Graduate Piano Recital with Terry Martin. Graham Chapel.

**German Books**

Siegfried Unseld (center), head of the Suhrkamp Insel Publishing Co. in Germany, was the banquet speaker at the recent Goethe Symposium sponsored by the Department of Germanic Languages and Literatures. Unseld also received an honorary degree from WU in 1980. To show his appreciation, he established the Suhrkamp Insel Collection in Olin Library. Each book published by Un- seld's company is added to the collection.

For more information, call 889-5963. Unseld's company is added to the collection.

**Strommen's art exhibited in Chicago**

Kim Strommen, who calls himself an installation artist, constructs textured sculptures out of ropes, telephone wires, electrical cables, glittering copper and other odds and ends.

Kim Strommen, associate dean of the WU School of Fine Arts, will have a one-man exhibit, titled "Ropes and Poles," from May 10 to June 50 at the Chicago Public Library Cultural Center, 78 E. Washington St. He will present a slide lecture on "The Process of the Artist" at 5 p.m. Friday, May 11, in the center's theater. His exhibit's opening will coincide with the annual Chicago International Art Exposition, May 10-15, which is the largest show of its kind in the world. The Cultural Center is a mile from the Navy Pier, site of the exposition.

Strommen's work also will be included in a group show May 10 to mid-June at the Ruth Volid Gallery, 225 W. Illinois St., in Chicago, and he will participate in a fiber art demonstration from 1 to 4 p.m. Saturday, May 19, at Launiecr Sculpture Park, 12580 Root Road.

Strommen, who calls himself an installation artist, combines painting, sculpture and fabric in his work. His handmade ropes and wrapped poles encompass many media, including colored canvas, telephone wire, electrical cables, cords, copper, and aluminum wire. With the raw materials, he builds structures and other designs — usually on-site.

**Commencement tickets still available**

Students requiring additional priority seating for family and guests for Commencement can request tickets May 1-17 at the Campus Bookstore on the main level of Mallinckrodt. Tickets assure priority seating as long as ticket holders arrive at the WU quadrangle before 8:15 a.m. on Friday, May 18. After that, seating will be opened to non-ticket holders.

Degree candidates who will not be in St. Louis while tickets are being distributed should call 889-5963 for special arrangements. August and December graduates will receive their tickets by mail, as will candidates in University College.

Medical, dental, occupational therapy and hospital administration candidates can pick up their tickets at the Medical School Campus Bookstore.