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RECORD

Washington
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Vol. 16 No. 18/Jan. 30, 1992



The husband-and-wife ethnobotanical research team, Walter Lewis, Ph.D., and Memory Elvin-Lewis, Ph.D., prepare to drink tea made from holly leaves. Says Elvin-Lewis, "One small cup gives you the best zing you've ever had. You get a clear, clean caffeine high, as long as you don't get carried away with it."

Amazon tribe's macho ritual takes zing out of caffeine

Millions of Americans start their day with a blast of caffeine to launch them on their way to work. The morning ritual is an ingrained part of American culture. When you compare this ritual, however, with that of the Achuar tribe of Jivaro Indians in the Amazonian rainforest, mornings should be easier to swallow.

Each morning at daybreak, the adult males of this ancient, still intact culture gather like farmers in a coffee shop and drink a highly caffeinated potion their wives make from the leaves of a rainforest holly, *Ilex guayusa*. For 45 minutes, the men converse while each quaffs more than two quarts of the brew and then, like clockwork, vomits. After this male-bonding session, called a *wayus*, it's, quite literally, off to the jungle they go.

This unusual coffee clutch caught the attention of a husband-and-wife ethnobotanical research team at the University. Walter H. Lewis, Ph.D., professor of biology, and Memory Elvin-Lewis, Ph.D., professor of biomedicine, have worked with the Jivaro Indians for more than a decade, collecting and analyzing their medicinal plants and studying their customs.

The Lewises wondered for years if the plant the Jivaro consumed as a stimulant was an emetic, or if some other factor was involved to explain the ritualistic vomiting, or emesis. After five trips to the Amazon, Lewis and Elvin-Lewis conducted an elaborate study in 1988 to determine the chemical makeup of the plant and the relationship between the plant's caffeine content and emesis.

Writing in the July 1991 issue of the *Journal of Ethnopharmacology*, the scientists conclude the Jivaro perform the emesis to rid themselves of excessive caffeine so they will avoid unwanted central nervous system side effects such as nervousness, irritability and, in extreme cases, hallucinations. The *Ilex guayusa* plant contains the highest percentage of caffeine by dry weight of any plant in the world, but no traces of

emetic compounds. Combining chemistry, medicine and ethnobiology, the Washington University team concluded that the ritualistic emesis is a learned response to the consumption of the holly leaf tea.

"Whenever we would ask the Jivaro about the emesis, they would usually give vague, rather embarrassed answers," says Lewis, who, with his wife, is co-author of *Medical Botany*, a highly regarded reference book. "They realize that outsiders consider the practice unusual. We found out that the emesis is simply part of the whole macho ritual, passed down through the ages. The tea is so pleasing that they overindulge, vomit to rid themselves of the excess caffeine, then go about their business. It may seem primitive, if not brutal, to outsiders, but it's actually very practical to the Achuar Jivaro, who are the only one of five Jivaro tribes that still practice the ritual."

The four other Jivaro tribes, comprising some 36,000 people in Peru's and Ecuador's rainforests, are the Aguaruna, Huambisa, Mayna and Shuar. Roughly 3,000 Achuar Jivaro still live in these rainforests. The Achuar Jivaro tribe is considered the most cultured — that is, untainted by other civilizations. The Achuar Jivaro cultivate different varieties of *Ilex guayusa*, a shrub that they let grow to about 12 feet high before harvesting the leaves.

At first the scientists suspected the holly leaves contained a naturally occurring emetic. After all, the Amazon rainforests provide the most famous emetic of them all, ipecac. Extracted from a creeping plant in the Amazon, the ipecac syrup is used throughout the world to induce vomiting in cases of toxic ingestion. Also, other hollies in the region, *Ilex vomitoria* and *Ilex paraguariensis*, used in teas by certain cultures, were once thought to contain emetic compounds. But Lewis performed chemical assays at the University

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Building bridges between cultures

Peace Corps volunteers work to promote world harmony

Scott Haase is on a mission.

He's looking for open-minded individuals who, in some cases, can survive without running water or electricity in exchange for living in a different culture.

Haase is the first U.S. Peace Corps recruiter to be based at Washington University. His position is part of a contract between the University's Career Center and the Kansas City, Kan., area office of the Peace Corps.

The Peace Corps promotes world peace and friendship by helping poor countries meet their daily needs in fields such as agriculture, small business development, forestry and education. Since former President John F. Kennedy founded the organization in 1961, about 130,000 volunteers have served in more than 90 countries. By next summer, volunteers will be working in the Baltic nations of Latvia, Lithuania and Estonia. Several other former Soviet republics have requested help as well.

At Washington, Haase is searching for people with expertise in fields that countries frequently request, but in which volunteers are scarce. These areas include biology; health and nutrition; English, math and science teaching; and industrial arts.

The Peace Corps is open to anyone 18 years of age or older with no dependents, including married couples if both can work. Most assignments require a college or technical degree, or three to five years relevant work experience as specified by the country requesting volunteers. Individuals must agree to be part of the organization for 27 months, a period that includes three months of intensive training once they arrive in the host country.

Because volunteers live at the level of host country residents, applicants

should "be committed to the idea of the Peace Corps and be willing to go anywhere," says Haase. Volunteers may be assigned to live in rural or urban settings. As a 1987-88 volunteer, Haase taught math and science at Khethisa Secondary School in the Southern African country of Lesotho. Haase lived in the rural village of Pitseng, where the school was located. "The people of Lesotho were very accepting of me as a person," said Haase, who will receive a master's degree in technology and human affairs from Washington in May. "Their openness, friendship and generosity made me feel welcome and made my initial feelings of homesickness very easy to overcome. I felt very comfortable living in Pitseng for two years."

Alumna Donna Ahlert Thomas sums up the motto for Peace Corps volunteers in one word: flexibility. Thomas, a 1962 graduate of the College of Arts and Sciences, served as a volunteer from 1963 to 1965 in Ghana, where she taught math and French at the Koforidua Secondary School. The first Peace Corps volunteers were assigned to Ghana in 1961.

The Peace Corps "made me a flexible person able to deal with anything, including a different culture," she said. Thomas is now a social worker for the St. Louis County Health Department. "I was only 23 years old when I went to Ghana and I had never been out of the country before — I had never been submerged into a culture where I was a minority. It was a big adjustment."

"People interested in the Peace Corps need to be flexible, tolerant and have a good sense of humor. They shouldn't go to a country thinking they are going to create another United States. They also have to face the fact that they may live in an area with no

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Lecture examines AIDS crisis, gay rights

Urvashi Vaid will speak on "The AIDS Crisis and Lesbian and Gay Rights in the '90s" for the Helen Manley Lecture at 11 a.m. Wednesday, Feb. 5, in Graham Chapel. Her lecture, which is part of the University's Assembly Series, is free and open to the public.

Vaid is executive director of the Washington-based National Gay & Lesbian Task Force (NGLTF), a civil rights organization founded in 1973. NGLTF and its 17,000 members lobby Congress and the federal government on a wide range of issues, including

Urvashi Vaid

health care, military discrimination, immigration policy, freedom of expression, domestic partnership and anti-gay violence. Vaid also heads the NGLTF Policy Institute, which is an informational clearinghouse and provides technical assistance to a wide range of gay and lesbian civil rights organizations. Vaid served as NGLTF's public information director for three years until 1989 when she became executive director.

Vaid, who is an attorney, worked from 1983-86 with the American Civil Liberties Union's National Prison Project conducting prisoners' rights litigation in federal courts. She has written and worked on the rights of prisoners with AIDS and HIV virus.

Born in New Delhi, India, Vaid grew up in upstate New York and in 1983 received her law degree from the Northeastern University School of Law. A member of the American Bar Association, Vaid served from 1987-89 on its Subcommittee on AIDS in the Criminal Justice System. In 1990 she participated in the Roundtable on Developing Guidelines for Access of Prisoners with HIV and AIDS to Experimental Therapies, sponsored by the National Prison Project and the AIDS Action Council.

This lecture honors Helen Manley, who developed a sex education program for the University City school district in 1930 that became the pioneer program for the United States. She served as a consultant and education specialist for the U.S. Office of Education and spent nine years directing the Social Health Association in St. Louis.

The lecture is co-sponsored by the University's AIDS and Sexually Transmitted Disease Awareness and Prevention Task Force, Assembly Series, Committee Organized for Rape Education, Congress of the South-40, Gay and Lesbian Community Alliance, Office of Student Affairs, The Outlaws (the gay and lesbian law association), Department of Psychology, Residential Life, George Warren Brown School of Social Work, Women's Studies Program and Student Union.

For more information, call 935-4620.

Auto care, yoga among Campus Y spring programs

Whether it's keeping in shape, sampling foreign cuisine, or learning to be assertive, Washington University's Campus YMCA-YWCA's spring classes offer a variety of programs to suit everyone. Classes are open to all members of the University community.

Want to lose a few pounds, or firm up your body after the holidays? **"Razzamajazz"** consists of stretching and warm-ups, cardiovascular conditioning, intense body toning, and cool-downs beginning Feb. 3 or 4 for seven weeks. Classes meet from 5:30 to 6:30 p.m. or 6:30 to 7:30 p.m. on Mondays and Wednesdays or Tuesdays and Thursdays in Umrath Hall Lounge. An extension class begins April 6 from 5:30 to 6:30 p.m. on Monday and Wednesday at the same location.

If you enjoy ethnic foods, try the four-week **"Indian & Pakistani Vegetarian Cooking"** from 6 to 8 p.m. on Wednesdays beginning Feb. 19 in the Campus Y. Students will cook Indian breads, chutneys and more.

Can't find your dipstick? Sign up for **"Basic Auto Care,"** which meets for seven weeks from 5:30 to 7:30 p.m. Tuesdays beginning Feb. 4 in the Campus Y. Students will learn how a car operates, what warranties do and do not cover, how to do a tuneup and more from an expert mechanic with 15-plus years of experience.

"Workout," a seven-week class for men and women, consists of warm-ups, calisthenics, aerobics, and cool-downs, all to energizing music. Classes meet twice a week from 8 to 9 p.m. on Mondays and Wednesdays or Tuesdays and Thursdays beginning Feb. 3 or 4 in the Myers Hall basement. An extension class will be offered beginning April 6 from 8 to 9 p.m. on Mondays and Wednesdays at the same location.

Increase your relaxation and concentration with **"Tai Chi,"** a four-week class beginning Feb. 4. The class meets once a week from 12 to 1 p.m. on Tuesdays in Umrath Hall Lounge.

"Aikido," a five-week class that teaches a self-defense technique derived from several martial arts, begins the week of Feb. 3 at the St. Louis Ki-Aikido Society School, 6006 Pershing Ave. Several dates and time slots are available.

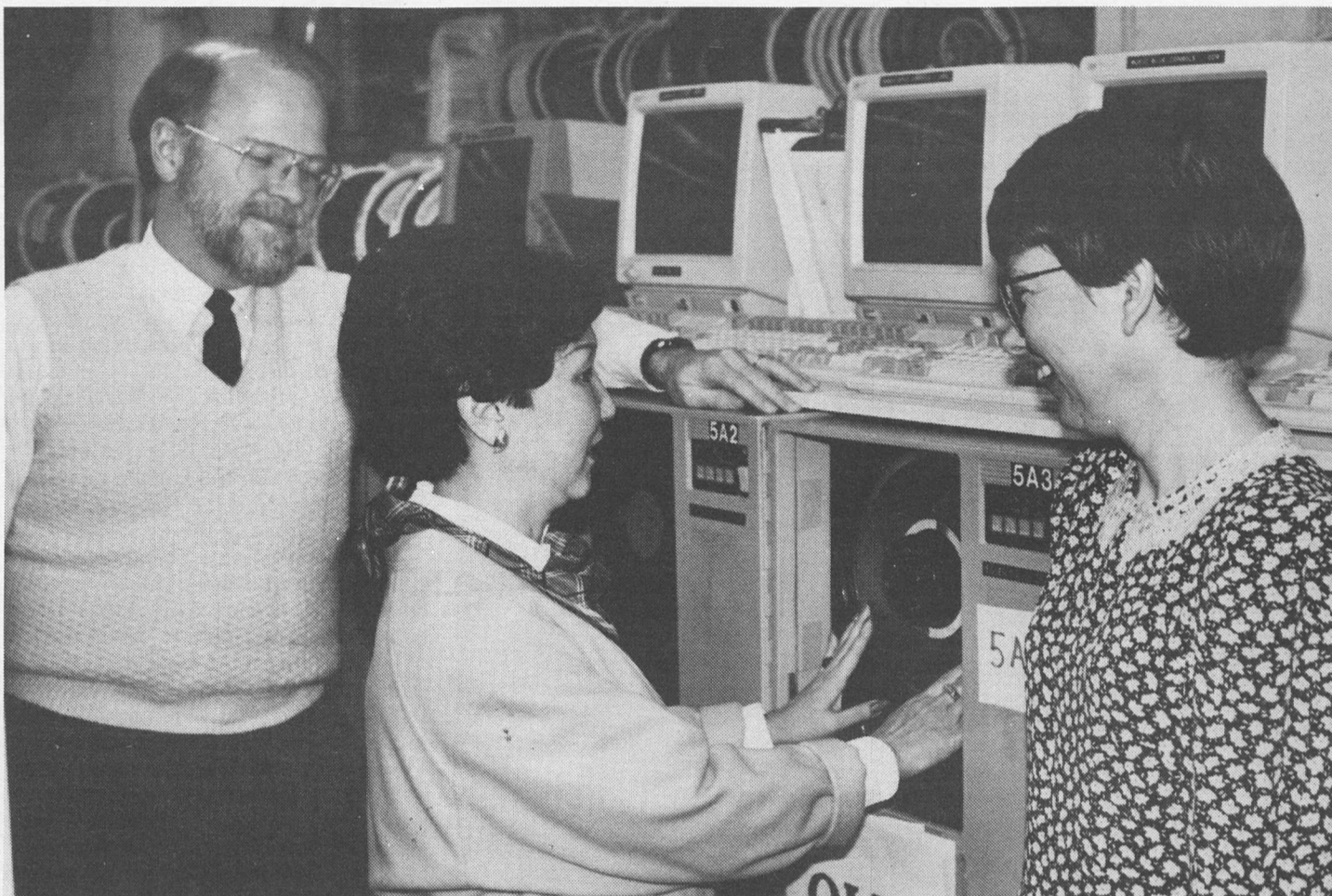
Second semester causing stress? **"Yoga"** will teach warm-ups and postures that encourage deep breathing, stretching, balance, and relaxation while maintaining the body and enhancing the mind. The class meets for seven weeks from 5:30 to 7 p.m. on Mondays beginning Feb. 3 in the Women's Building, Room 200.

"Assertiveness Training," a four-week class begins Feb. 4. Students will discover blocks to assertive communication and how to work through them. Classes meet from 6 to 7:30 p.m. on Tuesdays at Stix International House.

"Sign Language," a seven-week class, will meet from 4 to 5:30 p.m. on Tuesdays beginning Feb. 4 at the Campus Y. A four-week intermediate class will be offered as an extension from 4 to 5:30 p.m. on Tuesdays beginning March 31 at the same location.

"Dreams/Meditation" will allow students to discover the innate wisdom of the subconscious mind and the many benefits of meditation. The class meets from 7 to 9 p.m. on Mondays at the Stix International House and is divided into two three-week sessions. "Dreams" begins Feb. 3 and "Meditation" begins March 16.

For fee information and to register, call the Campus Y at 935-5010.



As part of the libraries' conversion to an online catalog system, Kay Yoon (center), senior systems librarian, loads the first tape of records into the computer at Sever Hall. Jeff Huestis (left), head of library systems, and Judy Fox, head of cataloging and classification services, look on.

Libraries computerizing entire card catalog

Washington University Libraries have launched a three-year project to finish computerization of its entire card catalog system.

Since the libraries installed the Library Users Information Service (LUIS) computer catalog eight years ago, the University community has used a dual system to search for books, journals and other materials such as manuscripts, recordings and microfilm. Generally, records for materials acquired after 1978 were entered in LUIS. Information on older materials was available through the card catalog. The three-year project will end the dual system, allowing library users to save time by conducting their research in one place. When the project is completed, the entire

library catalog will be available at terminals in all Washington libraries — allowing computer owners with modems to use the catalog from their homes or offices.

"We have celebrated many milestones, but few rival this one in terms of impact," said Shirley K. Baker, dean of University libraries. "Having all our records in the LUIS catalog was thought to be an unattainable goal a few years ago. Now the goal is in sight."

Phase one of the project, scheduled for completion in fall 1992, involves the creation of computer catalog records for nearly 600,000 book and journal titles now in the card catalog. More than 100,000 records already have been added. These include many of the

records for the art and architecture, biology, business, chemistry, earth and planetary sciences, mathematics, music, physics and social work libraries, as well as some Olin Library records.

Records also will be created for audio, video and microform materials during the initial phase. AMIGOS, a Dallas-based company with experience in library conversion projects, is the contractor for phase one.

Phase two of the project will focus on 103,500 bibliographic records for music scores and recordings, East Asian library materials, and rare books and special collections.

For information on accessing the computer catalog from remote locations, call the library systems unit at 935-5447.

Peace Corps volunteers — *continued from p. 1*

running water or electricity. There may be bugs, dirt and loneliness. But it's a great experience. You acquire the ability to accept another culture — not just learn from it."

The excitement of living in another culture is not the only advantage of Peace Corps service. Participation enhances an individual's job possibilities, particularly for people seeking international careers, notes Alfreda Brown, director of the Career Center and administrator of the Peace Corps contract. The Peace Corps helps people build leadership and problem-solving skills, which interest employers, she says. "Employers want to see the demonstrated impact of an individual's participation — How did they make a difference?"

Other benefits for Peace Corps volunteers include a monthly allowance for housing, food, clothing and incidentals. They also receive free medical and dental care, transportation to and from their overseas site and 24 vacation days a year. Volunteers who return to the United States receive a one-time readjustment allowance, possible financial assistance for graduate study, and federal employment privileges. If a host country becomes unsafe, volunteers are evacuated.

Washington's connection with the

Peace Corps dates back to 1985, when the agency's representatives asked Career Center officials about placing a representative on campus. At that time, office space was not available. In May 1990, however, Mel Adam, manager of the corps' Kansas City office, pursued the idea again. "We consulted with Deans Harry Kisker and Karen Coburn, who helped us identify available office space," says Brown, noting that Adam was responsible for Washington securing the contract.

Brown says having a Peace Corps representative on campus is important because "traditionally, Washington students have a high level of interest in the Peace Corps." According to a fall 1991 Peace Corps report, the University ranked 36th out of 300 colleges in terms of volunteers produced. Since January 1987, a total of 136 Washington students, alumni and staff have applied to become volunteers. Of those individuals, 24 are being considered for assignments now.

In May of last year, Barbara Zartman, deputy director of the organization, visited Washington and met with student leaders and Chancellor William H. Danforth.

The Peace Corps is attempting to increase its number of volunteers to 10,000 by 1994, and expand its minority

participation from 12 to 15 percent by the same year. "We are trying to extend our outreach to people who may not realize there are opportunities in the Peace Corps," says Haase. "The ultimate goal is for the Peace Corps to accurately represent the true diversity of the U.S. population."

Haase will conduct a recruiting drive on Jan. 29 and 30 in Mallinckrodt Center. For more information, call Haase at 935-4985.

— Carolyn Sanford

Black anthology program to be held

To commemorate February's designation as Black History Month, a program titled "Black Anthology: Voices of Black America" will be held at 7 p.m. Sunday, Feb. 2, in Edison Theatre. The public event will cost \$5.

The program, sponsored by the Office of Residential Life, will feature students presenting music, dance, narrative histories of black Americans, and poetry and speeches written by famous blacks, including Frederick Douglass, Ida B. Wells and Margaret Walker.

For more information, call 935-6679.

NOTABLES

John W. Clark, Ph.D., professor of physics, gave an invited talk titled "Teaching Neural Networks to Do Science," at the International Conference on Structure: From Physics to General Systems at the Hotel Santa Caterina in Amalfi, with closing ceremonies in the Palazzo Serra di Cassano, Naples. The conference was held in honor of Professor Eduardo Caianiello's 70th birthday. Caianiello is a distinguished Italian theoretical physicist and a pioneer of neural network research.

Bahman Emami, M.D., professor of radiology and associate director for the Radiation Oncology Center, gave a talk and had a poster presentation at a recent international meeting, titled "Sixth World Conference on Lung Cancer" in Melbourne, Australia. The topic of his poster presentation was "Postoperative Radiation Therapy in Non-Small Cell Lung Cancer." His oral presentation was titled "High Dose Conventional Fractional Radiation Therapy in Unresectable Non-Small Cell Lung Cancer: Patients With Good Prognostic Factors." Additionally, Emami was invited to speak at the Institute of Oncology, University of New South Wales, Prince Henry, Prince Wales Hospitals in the Department of Radiation Oncology in Sydney, Australia. His talk was titled "Three Dimensional Radiotherapy." He also was an invited speaker at the Queensland Radium Institute, Royal Brisbane Hospital, Division of Oncology, Brisbane, Australia. The talk was titled "Overview of Current Clinical Hyperthermia."

M. Wayne Flye, M.D., Ph.D., professor of surgery, molecular microbiology, and immunology, has been appointed to the National Institutes of Health's Surgery, Anesthesia and Trauma Study Section through 1995. Flye's research interests are focused on transplantation immunology and especially the role of the liver in modification of the immune response. Study section members are selected on the basis of their demonstrated achievements in their scientific discipline as evidenced by the quality of their research accomplishments, publications in scientific journals, national presentations and related achievements and honors.

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Stephen Legomsky, J.D., Ph.D., professor of law, spoke at an American Society of International Law conference hosted by Willamette University. His topic was "Political Asylum and Judicial Review."

Alessandra Luiselli, Ph.D., assistant professor in the Department of Romance Languages and Literatures, participated in the International Symposium on Sor Juana Ines de la Cruz, titled "Triptico Virreinal: Los Tres Sonetos a la Rosa de Sor Juana Ines de la Cruz." The symposium was held in El Colegio de Mexico in Mexico City. Professors from Europe, the United States and Mexico participated.

Larry May, Ph.D., professor of philosophy, organized and spoke at a conference titled "Ethics and the Educated Person" at Purdue University. The conference was sponsored by the Eli Lilly Foundation. He also delivered a paper titled "Conflict of Interest" at the Central States Philosophical Association annual meeting. He was invited to present the same paper at a conference at Clemson University. The conference topic was Professional Ethics and Social Responsibility. An anthology he co-edited, *Collective Responsibility*, was published by Rowan and Littlefield. Another anthology, on the concept of masculinity, has just been accepted by the same press. In addition, his latest authored book, *Sharing Responsibility*, has just been accepted for publication by the University of Chicago Press.

Carol Mershon, Ph.D., assistant professor of political science, gave a paper on "Expectations and Informal Rules in Coalition Formation" and chaired a section on Ideology and Party Politics at the 87th annual meeting of the American Political Science Association in Washington, D.C. Also at the meeting, **Robert H. Salisbury, Ph.D.**, chair of political science and Sidney W. Souers Professor of American Government, participated in a roundtable discussion on Studying Organizational Leaders Using Interview Techniques. **Serenella Sferza, Ph.D.**, assistant professor of political science, presented two papers: "National Versus Regional Models of Party Building and Development: The French Socialist Party" and "Factions, Regions, and French Socialism in the 1980s."

Max J. Okenfuss, Ph.D., associate professor of history, delivered a paper, titled "Catherine's Public Schools and the End of Enlightenment in Russia," at the national meeting of the American Association for the Advancement of Slavic Studies (AAASS), held in Miami. He also commented about papers on "Names, Naming Practices and Kinship in Russia 1670-1850," and completed his term on the AAASS Council of Member Institutions. He is coordinating the next annual meeting of the Central Slavic Conference, which will meet in St. Louis this October.

Have you done something noteworthy?

Have you: Presented a paper? Won an award? Been named to a committee or elected an officer of a professional organization? The Washington University Record will help spread the good news. Contributions regarding faculty and staff scholarly or professional activities are gladly accepted and encouraged. Send a brief note with your **full name, highest-earned degree, current title and department** along with a description of your noteworthy activity to Notables, Campus Box 1070, or by electronic mail to p72245DP at WUVMC. **Please include a phone number.**

Elkin's literary accomplishments recognized with portrait

Stanley Elkin, Ph.D., Merle Kling Professor of Modern Letters, will read from his new book of essays, *Pieces of Soap*, at an event marking the installation of his portrait in Olin Library. The event, which is free and open to the public, will be held at 8 p.m. Friday, Feb. 7, in Olin Library, Level 4.

An exhibit of manuscripts, books and correspondence from the permanent Elkin Papers collection will debut that evening and run through April 10 in Special Collections, Level 5. The exhibit is titled "The Revenge of Style: Stanley Elkin, Storyteller."

Elkin is the second University professor to receive recognition for his literary accomplishments with a portrait. The first was the late poet Howard Nemerov. Nemerov's portrait hangs at the entrance to Special Collections on Level 5. Three others individuals also will have their portraits installed — Jarvis Thurston, Ph.D., professor emeritus and former chair of English; Thurston's wife, Mona Van

Duyn, former lecturer in English and winner of the 1991 Pulitzer Prize for poetry; and William Gass, Ph.D., David May Distinguished University Professor in the Humanities.

Elkin, who has been a member of the Department of English since 1960, is the author of 15 works of fiction and essays. He has been nominated for the National Book Award three times, including last year when his novel *The MacGuffin* was nominated. His novel *George Mills* won the 1982 National Book Critics Circle Award.

Elkin became a professor of English at the University in 1969. Among his many awards and honors are the Paris Review Humor Prize, a Guggenheim Fellowship, induction in the American Academy and Institute of Arts and Letters and the Southern Review award for *Stanley Elkin's Greatest Hits*. This past December he received New York University's Elmer Bobst Award in Arts and Letters for lifetime contribution to the art of fiction.

Macho ritual —

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on various kinds of *Ilex guayusa* leaves he brought back from Peru and Ecuador. He also tested leaves from the two related hollies. He found none of the plants contained emetics, but *Ilex guayusa* contained enough caffeine to make Juan Valdez ... well, jealous.

"There are 85 milligrams of caffeine in an average cup of American brewed coffee, compared to about 106 milligrams of caffeine in a cup of holly tea that the Jivaro consume," Lewis says. "After emesis, the Jivaro remove 49 percent of the caffeine from their system. That leaves them with roughly the equivalent of about 2.5 cups of American brewed coffee in their bloodstream, well below the physiological 'point of no return,' where over stimulation of the central nervous system starts occurring. The Jivaro tell us they perform quite well as long as they vomit. If they don't vomit, they simply have a miserable day."

To determine how much caffeine remained in the system of a "typical" holly tea drinker, Elvin-Lewis took blood samples from a participant in a *wayus* during the 1988 visit to the Amazon. She took samples of the participant's blood before drinking and 10 minutes after emesis. The subject drank the customary 2.2 liters in 45 minutes, drinking the tea gradually.

Chemical analyses performed later by Gary N. Bass, a medical research technologist at the School of Medicine, showed no caffeine in the blood before drinking, despite the fact the subject drank the tea daily. A blood sample taken 10 minutes after emesis revealed that the subject had only absorbed 224 milligrams of caffeine. That amount of caffeine is roughly equivalent to 2.6 cups of coffee. Had the subject not undergone emesis, the researchers say he would have absorbed nearly twice those amounts, the equivalent of 5.2 cups of coffee, or more than 448 milligrams of caffeine.

"The *Ilex guayusa* tea is a very pleasant, aromatic herbal drink," says Elvin-Lewis. "One small cup gives you the best zing you've ever had. You get a clear, clean caffeine high, as long as you don't get carried away with it."

The *wayus* is a men only club. "This ritual is the closest thing to a rite of passage the Jivaro have," Lewis says. "Young boys must wait until adolescence to join their fathers, uncles and cousins in the *wayus*. In the interim, they're coaxed on by their mothers to learn a gag reflex that facilitates emesis."

Jivaro mothers habitually tickle the throat muscles of their young sons with leaf stems of a crop staple, cassava, so the boys will be ready to join the adult males in the ritual when they reach puberty, he explains.

Elvin-Lewis points out that Jivaro women drink moderate amounts after the men finish their ceremony. Emesis is uncommon in the Jivaro women.

"The women really are the cornerstones of the Jivaro society. They know many of the medicines, tend the fields and children, and the favorite wife often accompanies the husband on hunting expeditions. Many of the men die early — either in hunting or tree-cutting accidents or else in their own Hatfield and McCoy sort of feuds."

Amazonian flora and cultures had fascinated the Lewises long before their first trip to visit the Jivaro in 1982. The Jivaro have plant-based remedies for nearly every human malady. They gave the world quinine for malaria and curare, used as a muscle relaxant after surgery. The Lewises have returned to St. Louis with thousands of plant samples, testing some for possible uses in combatting diseases ranging from hepatitis to AIDS. They've also analyzed the effectiveness of various plants the Jivaro use as contraceptives and wound-healers.

Two factors work against the secrets of the Jivaro. One is their growing assimilation into civilization. The Jivaro are illiterate; their medicinal lore is passed orally from one generation of healers to another. The younger Jivaro, increasingly exposed to the outside world, lose interest in the art of herbal medicine, lessening the likelihood that the knowledge about plants will be propagated. The other factor is the rapid destruction of the rainforests that harbor a natural pharmacy. An estimated area the size of Illinois is being deforested annually in the Amazon, destroying the habitat for the herbal plants.

"What's at stake is not only a loss of a people and their customs, but the loss of so many valuable plants," adds Lewis, who is a senior botanist at the Missouri Botanical Garden. "We have to realize that only 5 percent of the Amazon's plant species has been analyzed, while 20,000 plant and animals species are being lost worldwide each year. We have to remember that one-fourth of all prescription drugs are based on plant extracts."

— Tony Fitzpatrick

CALENDAR

Jan. 30–Feb. 8

LECTURES

Thursday, Jan. 30

Noon. Dept. of Genetics Seminar, "Detecting Single Gene Loci Affecting Quantitative Characters: Somatic Growth in Mice," Jim Cheverud, WU prof. of anatomy. Room 816 McDonnell Medical Sciences Bldg.

12:10 p.m. Gallery of Art Presents a Gallery Talk, "Daniel Boone and the Myth of Manifest Destiny," Joe Ketner, director, WU Gallery of Art. Gallery of Art, lower gallery, Steinberg Hall.

4 p.m. Dept. of Earth and Planetary Sciences Colloquium, "Isotopic Studies of Australasian Tektites: Search for the Missing Crater," Joel D. Blum, asst. prof., Dartmouth College. 102 Wilson.

4 p.m. Dept. of Chemistry Seminar, "The Many Faces of Alkoxide Ligands: From Organometallic Chemistry to Ceramics," Kenneth Caulton, prof., Indiana U. Room 311 McMillen.

4 p.m. Assembly Series Presents Committee Organized for Rape Education Lecture, "Real Rape," Susan Estrich, Robert Kingsley Professor of Law and Political Science, U. of Southern California Law Center. Graham Chapel.

4 p.m. Dept. of Physics Seminar, "Wigner Lattice Pure Electron Crystal," David Neilson, U. of New South Wales. Room 201 Crow Hall.

Friday, Jan. 31

9:15 a.m. Pediatric Grand Rounds, "Sudden Infant Death Syndrome and Infant Sleeping Position: The Growing Controversy," Bradley T. Thach, WU prof. of pediatrics, Division of Newborn Medicine, St. Louis Children's Hospital, and James S. Kemp, WU asst. prof. of pediatrics, Division of Allergy/Pulmonary Medicine, St. Louis Children's Hospital. Clopton Hall Aud., 4950 Audubon Ave.

Noon. Dept. of Cell Biology and Physiology Seminar, "Regulation of Exchange Vessel Function by the Hormone Atrial Natriuretic Peptide," Virginia Huxley, U. of Missouri-Columbia. Room 423 McDonnell Bldg.

4 p.m. Dept. of Anatomy and Neurobiology Seminar, "Focal Changes in Local Cerebral Blood Flow With Natural Sensory Stimulation," Tom Woolsey, WU prof., Dept. of Neurosurgery. Room 928 McDonnell Bldg.

4 p.m. Assembly Series Presents Student Union Public Affairs Lecture, "Challenges in America's Future," Pat Schroeder, Democratic congresswoman, Colorado. Graham Chapel.

4 p.m. Dept. of Music Lecture, "Music and Make-Believe," Kendall Walton, prof. of philosophy, U. of Michigan. Room B-8 Blewett.

Saturday, Feb. 1

9 a.m. Neuroscience Seminar, "Cortical Development: Development of Extrinsic and Intrinsic Cortical Connections," Andreas Burkhalter, WU asst. prof., Dept. of Neurosurgery. Erlanger Aud., McDonnell Bldg.

11 a.m. University College Seminar, "Conflict and Collision in the Age of Columbus," David T. Konig, WU chair of history. Women's Bldg. Lounge.

Monday, Feb. 3

3 p.m. Dept. of Mathematics Operator Theory Seminar, "An Informal Overview of Operator Theory," John McCarthy, WU asst. prof. of mathematics. Room 199 Cupples I.

4 p.m. Immunology Seminar, "Mechanisms of Immunity to an Encapsidated Virus," Herbert W. Virgin IV, WU asst. prof. of medicine, Division of Infectious Diseases. Third Floor Aud., Children's Hospital, 400 S. Kingshighway.

4 p.m. Dept. of Biology Seminar, "Commercialization of Genetically Engineered Crops," Robert Fraley, director of technology, Monsanto Agriculture Co. Room 322 Rebstock Hall.

7 p.m. Divisional Molecular Biophysics Seminar, "Ultra-Fast Spectroscopy of Porphyrins and Bacterial Photosynthetic Reaction Centers," J. Dewey Holten, WU prof. of chemistry. Room 2918 South Bldg.

8 p.m. School of Architecture Monday Night Lecture Series Presents the Steedman Memorial Lecture, "The Recent Works: Space, Technology and Craftsmanship," Fumihiko Maki, architect, Tokyo. Steinberg Hall Aud.

Tuesday, Feb. 4

5 p.m. Dept. of Pediatrics Seminar, "Host-Pathogen Interactions in Microbial Pathogenesis,"

Brett Finlay, Depts. of Microbiology and Biochemistry, U. of British Columbia. Third Floor Aud., Children's Hospital, 400 S. Kingshighway.

Wednesday, Feb. 5

8 a.m. Dept. of Obstetrics and Gynecology Grand Rounds, "Management of the Menopausal Woman," Lorraine Anne Fitzpatrick, assoc. prof. of medicine, and director, Bone Histomorphometry Unit, Mayo Medical School. West Pavilion Amphitheater, Barnes Hospital.

11 a.m. Assembly Series Presents the Helen Manley Lecture, "The AIDS Crisis and Lesbian and Gay Rights in the '90s," Urvashi Vaid, executive director, National Gay & Lesbian Task Force. Graham Chapel. Free.

Noon. Dept. of Biology Seminar, "Leghemoglobin in Nodules," Robert Klucas, Dept. of Biochemistry, U. of Nebraska. Room 309 Rebstock Hall.

12:30 p.m. Neuroscience Luncheon Seminar, "Synaptic Pathology in Diabetic and Aging Sympathetic Ganglia," Robert Schmidt, WU assoc. prof. of pathology. Room 928 McDonnell Bldg.

4 p.m. East Asian Studies Colloquium, "Civil Service and Examination Systems in Republican China: Symbol and Reflection of the Reconstituting State," Julia Strauss, WU visiting prof. of history. Location to be announced. For more info., call 935-4448.

4 p.m. Dept. of Biochemistry and Molecular Biophysics Seminar, "Mechanisms of Salmonella Pathogenicity," Roy Curtiss, chair, WU Dept. of Biology. Cori Aud., 660 S. Euclid.

4 p.m. Divisional Plant Biology Seminar, "Oxidation and Reduction of Leghemoglobin in Nitrogen Fixing Nodules," Robert Klucas, U. of Nebraska. Room 309 Rebstock Hall.

Thursday, Feb. 6

Noon. Molecular Biology and Pharmacology Seminar, "The Regulation of Adipocyte Gene Expression in Differentiation and Disease," Bruce Spiegelman, Dept. of Biological Chemistry and Molecular Pharmacology, Dana-Farber Cancer Institute. Room 423 McDonnell Bldg.

12:10 p.m. Gallery of Art Presents a Gallery Talk, "The Harrisons' Environmental Projects," Chris Scoates, curator, WU Gallery of Art. Gallery of Art, upper gallery, Steinberg Hall.

4 p.m. Dept. of Chemistry Seminar, "Kinetics and Mechanisms for Reactive Intermediates in Organosilicon Chemistry," Robert T. Conlin, prof., U. of North Texas. Room 311 McMillen.

4 p.m. African and Afro-American Studies, Dept of English, the Writing Program and International Writers Center Present a Reading of Fiction by Reginald McKnight, assoc. prof. of English, Carnegie-Mellon U., Pittsburgh, and author of *The Kind of Light That Shines on Texas*. Hurst Lounge, 201 Duncker Hall.

4 p.m. Divisional Evolution and Population Biology Seminar, "Analysis of Plant Fossil DNA for Evolutionary and Phylogenetic Studies," Edward Golenberg, Dept. of Biology, Wayne State U. Room 322 Rebstock Hall.

Friday, Feb. 7

9:15 a.m. Pediatric Grand Rounds, "Kawasaki Disease," Fred S. Rosen, James L. Gamble Professor of Pediatrics, Harvard Medical School, and president, Center for Blood Research. Clopton Hall Aud., 4950 Audubon Ave.

Noon. Dept. of Cell Biology and Physiology Seminar, "Beta Tubulin Gene Expression and the Specificity of Microtubule Function in *Drosophila*," Elizabeth Raff, Indiana U. Room 423 McDonnell Medical Sciences Bldg.

Noon. Dept. of Biology Seminar, "Rhodopsin Activation as Seen Through the Eye of Chlamydomonas," Kenneth Foster, Dept. of Physics, Syracuse U. 202 Life Sciences Bldg.

Noon. Religious Studies Committee Lecture, "Religion and Politics: Ireland, Italy, Iran, India," Ninian Smart, J.F. Rowny Professor of Comparative Religion, U. of California, Santa Barbara, and author, *Worldviews: Crosscultural Explorations in Human Beliefs and Religion and the Western Mind*. Women's Bldg. Lounge.

4 p.m. Microbial Pathogenesis Seminar, "Molecular Mimicry: A Mechanism for Virus Induced Autoimmunity," Robert Fujinami, prof., Dept. of Neurology, U. of Utah School of Medicine. Room 775 McDonnell Bldg.

6 and 8:30 p.m. WU Association Travel Lecture Series Presents "Africa Camera Safari" with Clint Dean. Dean has made presentations for Kiwanis, women's clubs, school assemblies and universities. Cost: \$4.50 at the door. Graham Chapel. For info., call 935-5212.

8 p.m. Libraries Bookmark Society Presents a Reading by Stanley Elkin, WU Merle Kling Professor of Modern Letters. Olin Library, Level 4.

Saturday, Feb. 8

11 a.m.-12:30 p.m. University College Saturday Seminars Presents "Versions of 1492: Cultural Pluralism in the Old and New Worlds," Maria Rosa Menocal, prof. of Spanish, Yale U.; discussant: Maria Ines Lagos, WU assoc. prof. of Spanish. Women's Bldg. Lounge. Free.

PERFORMANCES

Saturday, Feb. 1

8 p.m. Performing Arts Dept., Women's Studies Program, Assembly Series, Student Union, Thyrsus, and the WU Society for the Arts Present a Dance Concert, "About Men... about women," Jan Erkert, artistic director, Jan Erkert & Dancers. Mallinckrodt Center Dance Studio, Room 207. Cost: \$5 for general public; free with WU ID. For info., call 935-5858.

Sunday, Feb. 2

7 p.m. Residential Life Presents "Black Anthology: Voices of Black America." Edison Theatre. Cost: \$5. For more info., call 935-6679.

Friday, Feb. 7

8 p.m. Edison Theatre "OVATIONS!" Series Presents "Alice in Wonderland," the Czech version, performed by the Black Light Theatre of Prague. (Also Feb. 8 at 2 and 8 p.m.) Edison Theatre. Cost: \$7. For more info., call 935-6543.

EXHIBITIONS

"Washington University Art Collections."

Through May 1992. Gallery of Art, lower gallery, Steinberg Hall. Exhibit hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. For more info., call 935-5490.

"Columbus of the Woods: Daniel Boone and the Myth of Manifest Destiny." Through March 29. Gallery of Art, lower gallery, Steinberg Hall. Exhibit hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. Free. For info., call 935-5490.

"Helen and Newton Harrison Changing the Conversation: Environmental Projects Proposed and in Progress." Through March 22. Gallery of Art, upper gallery, Steinberg Hall. Exhibit hours: 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. Free. For info., call 935-5490.

"The Revenge of Style: Stanley Elkin, Storyteller." Feb. 7 through April 10. Olin Library, Special Collections, Level 5. Exhibit hours: 8:30 a.m.-5 p.m. weekdays. Free. For more info., call 935-5495.

MUSIC

Sunday, Feb. 2

2 p.m. Dept. of Music Presents a Piano Recital with Annette Burkhart, WU applied music instructor. Steinberg Hall Aud.

FILMS

Thursday, Jan. 30

7 and 9 p.m. Filmboard Foreign Series Presents "Umberto D." Room 100 Brown Hall. \$3. **For Filmboard hotline, call 935-5983.**

Friday, Jan. 31

7 and 9 p.m. Filmboard Feature Series Presents "Gilda." (Also Feb. 1, same times, and Feb. 2 at 7 p.m.) Room 100 Brown Hall. \$3.

Midnight. Filmboard Midnight Series Presents "Deadmen Don't Wear Plaid." (Also Feb. 1, same time, and Feb. 2 at 9:30 p.m.) Room 100 Brown Hall. \$3. On Fri. and Sat., both the 9 p.m. and midnight films can be seen for a double feature price of \$4.

Monday, Feb. 3

7 and 9 p.m. Filmboard Classic Series Presents "Mr. Deeds Goes to Town." (Also Feb. 4, same times.) Room 100 Brown Hall. \$3.

Tuesday, Feb. 4

7 p.m. Dept. of Asian and Near Eastern Languages and Literatures Japanese Film

Author Reginald McKnight to give reading

Reginald McKnight will read from his new book *The Kind of Light That Shines on Texas* as part of the Young Writers Lecture Series. The reading will be held at 4 p.m. Thursday, Feb. 6, in Hurst Lounge, 201 Duncker Hall.

McKnight is author of the critically acclaimed novel *I Get on the Bus* and the award-winning short story collection *Moustapha's Eclipse*.

In *The Kind of Light*, McKnight has written seven stories that explore the African-American experience. He won the O. Henry Award and the Kenyon Review New Fiction Prize for the title story. In it, an insecure 12-year-old, the son of an Air Force sergeant who's away in Vietnam, defeats the school bully. The young hero is black, his tormentor is white, and the story tackles institutionalized racism and the

Series Presents "Double Suicide," a Japanese film with English subtitles. 100 Busch Hall. Free.

Wednesday, Feb. 5

7 and 9 p.m. Filmboard Foreign Series Presents "Miracle in Milano." (Also Feb. 6, same times.) Room 100 Brown Hall. \$3.

Friday, Feb. 7

7 and 9 p.m. Filmboard Feature Series Presents "Hunt for Red October." (Also Feb. 8, same times, and Feb. 9 at 7 p.m.) 100 Brown. \$3.

Midnight. Filmboard Midnight Series Presents "Evil Dead II." (Also Feb. 8, same time and Feb. 9 at 9:30 p.m.) Room 100 Brown Hall. \$3. On Fri. and Sat., both the 9 p.m. and midnight films can be seen for a price of \$4.

SPORTS

Friday, Jan. 31

6 p.m. Women's Basketball. WU vs. Emory U. Field House.

8 p.m. Men's Basketball. WU vs. Emory U. Field House.

Saturday, Feb. 1

1 p.m. Men's Swimming and Diving. WU vs. Washash College. Millstone Pool.

Sunday, Feb. 2

1 p.m. Women's Basketball. WU vs. New York U. **APPEARANCE BY THE BUD LIGHT DAREDEVILS.** Field House.

3 p.m. Men's Basketball. WU vs. New York U. **HALFTIME ENTERTAINMENT BY THE BUD LIGHT DAREDEVILS.** Field House.

MISCELLANY

Thursday, Jan. 30

8:30 a.m.-4 p.m. Center for the Study of Data Processing Seminar, "Winning Negotiations," Pat Magee-Taylor, WU senior associate, School of Technology and Information Management. (Continues Jan. 31, same time.) Room 232 Prince Hall. Cost: \$520. For more info., call 935-5380.

5:30-7 p.m. Performing Arts Dept. Presents a Master Class in Intermediate-Advance Dance Technique with Jan Erkert, artistic director, Jan Erkert & Dancers. Mallinckrodt Center Dance Studio, Room 207. Cost: \$5 for general public; free with WU ID. For more info., call 935-5858.

Saturday, Feb. 1

9:30 a.m. University College Presents a "Library Workshop," a review of basic research techniques in the humanities and social and physical sciences and an introduction to specialized reference resources. Free with advance reservation. For info., call 935-6788.

Monday, Feb. 3

2:30-4 p.m. University College Short Course, "Stalemate: Divided Party Government in America," John B. Gilmour, WU asst. prof. of political science. (Course continues through March 2, with no class being held on Feb. 17.) Cost: \$65. For reservations, call 935-6788.

Wednesday, Feb. 5

5-6:30 p.m. University College Career Workshop, "Building Job Security in an Insecure Job Market," Peg Atkins, national certified career counselor, University College. Room 20 January Hall. Cost: \$10 for general public; free to WU students. Reservations required. For info., call 935-6788.

Saturday, Feb. 8

9 a.m.-Noon. University College Career Workshop, "The Craft of Writing: Grammar and Usage," Tatnall Warner, news editor, St. Louis Post-Dispatch, and lecturer in communications and journalism, University College. Cost: \$15. For reservations, call 935-6788.

hollowness of Lyndon Johnson's "Great Society" as experienced in Waco, Texas.

Publishers Weekly said of the author, "McKnight evokes a quicksand world where survival is a victory."

Kirkus Reviews wrote, "McKnight's characters, consistently sensitive and serious, try to survive in a world where both men and women must be approached with wariness, racism is endemic, and love is at best equivocal."

McKnight is the recipient of a 1991 National Endowment for the Arts Grant for Literature. He is an associate professor at Carnegie-Mellon University.

The event is sponsored by African and Afro-American Studies, the Department of English, the Writing Program and the International Writers Center. For more information, call 935-5690.

Calendar Deadline

The deadline to submit items for the Feb. 6-15 calendar of the Record is noon Jan. 31. Items must be typed and state **time, date, place, nature of event, sponsor and admission cost.** Incomplete items will not be printed. If available, include **speaker's name and identification and the title of the event;** also include your name and telephone number. Send items to Marilyn Chill, Box 1070, or by electronic mail to p72245CM at WUVMC.