

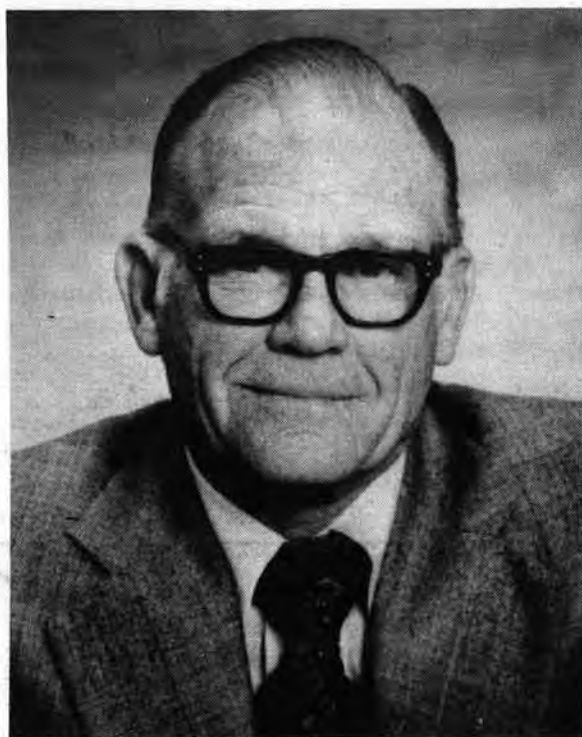
Students Take the Wheel of Campus Shuttle Program, page 3
The Difficulties of Straddling Different Cultures, page 6
Roald Sagdeev on the East-West Connection, page 8

Outlook

The University of Maryland at College Park Faculty and Staff Weekly Newspaper • Volume 8 Number 21 • March 28, 1994

Former UM President Wilson Elkins Dies

Memorial Service Planned for March 28 in University Chapel



Wilson Homer Elkins

Wilson Homer Elkins, who served as University of Maryland's president from 1954 to 1978, died of cancer March 17 at the University of Maryland Hospital in Baltimore. He was 85 years old.

Elkins, who has been described as a wonderful leader and a remarkable and scholarly man, guided the university

through a period of unprecedented growth and change. During his 24-year term, the university population grew from 7,000 to 35,000, the university's academic accreditation was restored, and two campuses, in Baltimore and on the Eastern Shore, were added.

"President Elkins was a great leader," said President William E. Kirwan, who came to campus in 1968 as an associate professor of mathematics. "He elevated our academic aspirations and I think we are a much better university as a result of his leadership."

When the soft-spoken Texan assumed the presidency, the Middle States Association of Colleges and Secondary Schools had threatened to withdraw accreditation and Phi Beta Kappa, the academic honor society, refused to authorize a chapter at the university. Declaring the rebuilding of the university's academic credibility to be his primary mission, Elkins took the helm and one year later, the Middle States Association reaffirmed its accreditation. The Phi Beta Kappa

chapter was established in the 1960s.

It was in 1961 that the University of Maryland refused admittance to 144 graduates of Maryland high schools—the first time such students who failed to meet university standards had not been admitted, despite their parents' insistence.

During Elkin's presidency, the faculty was upgraded and tenure and sabbatical systems were developed. Budgets soared, schools of social work and architecture were founded, research activities multiplied and a new library was built.

But he was not necessarily a favorite with students. In the late '60s and early '70s, while the campus enrollment was increasing, the Vietnam War was escalating, bringing turmoil and protest to campuses everywhere. Maryland students commandeered Route 1 three times during that period in anti-war demonstrations. University offices were seized and eventually the National Guard was called in. Taking a hard line toward the protesters, Elkins demanded suspension of these "radical students" who occupied buildings. In later years, Elkins called this time the most unpleasant of his years as an educator.

In another incident, when Elkins became the target of obscene remarks

in two campus publications, he banned those publications.

Born on a farm in west Texas, Elkins graduated (with both a B.A. and M.A.) from University of Texas where he served as student body president, was elected to Phi Beta Kappa and earned eight varsity letters in football, basketball and track. (He also became famous as "Bull" Elkins, one of the greatest quarterbacks in Texas football history.) As a Rhodes Scholar, he earned a bachelor's degree in literature and his doctorate at Oxford University in England.

Prior to the University of Maryland, Elkins served as president of what is now the University of Texas at El Paso. He retired from the University of Maryland on June 30, 1978.

His first wife, the former Dorothy Blackburn, died in 1971. Survivors include his wife, the former Vivian Noh Andrews, two daughters, two stepsons, six grandchildren and a great-grandson.

A memorial service is planned for Monday, March 28, at 3 p.m., in the University Chapel. The family asks that in lieu of flowers, contributions be made to the Wilson Elkins Professorship at the University of Maryland Foundation, Metzert Road, Adelphi, Maryland 20783.

Re-Entry Student Named Truman Scholar

For the first time in 12 years, College Park has a Truman Scholar. Peter Shapiro, a junior in the Afro-American Studies Program, has been elected as a 1994 Harry S Truman Scholar.

The Harry S Truman Scholarship Foundation awards \$30,000 scholarships for college students preparing for public service careers. Scholarships are given to college students who have "outstanding leadership potential, plan to pursue careers in government or elsewhere in public service, and wish to attend graduate school to help prepare for their careers." In 1994, 427 colleges and universities nominated 852 outstanding college juniors. Twenty-five of the nominees were Maryland residents. Only 60 students, including three Maryland residents, from about 50 institutions received Truman scholarships in this round of the competition which ended March 18.

Shapiro is a full time student who works part time at the Center for

Political Leadership and Participation. He was working there when he received a cryptic call to report to President William E. Kirwan's office. "I was thinking he just wanted to thank me for being one of the finalists," Shapiro says. "I wasn't getting it."

Shapiro's faculty mentor, Georgia Sorenson, director of the center, strongly suggested Shapiro change clothes before going. "I was wearing dirty jeans and a t-shirt and I hadn't shaved," Shapiro says.

At the insistence of Sorenson, Shapiro drove her car home to shave and change into a sweater and slacks before meeting Kirwan. "I still wasn't getting it until I walked into the office and there was a photographer and the head of the honors program." The scholarship means that graduate school for Shapiro is "virtually paid for."

After graduating in January 1995, Shapiro plans to pursue a master's

—continued on page 2



Peter Shapiro, pictured center, with President Kirwan and Jane Lawrence, director of the honors program, has been elected a 1994 Harry S. Truman Scholar.

Two Women of Color Honored

Every spring for the past two years, a woman of color has been honored for outstanding contributions to the university's minority community by the Women of Color Committee of the President's Commission on Women.

On March 4, however, the committee broke with tradition and gave the Woman of Color award to two women—Roberta Coates, associate director of Campus Programs and Andrianna Stuart, landscape technician.

"The two candidates were so good and had so much to recommend them that the committee found it extremely difficult to choose and so it decided to nominate both of them," said Bonnie Oh, chairperson of the award selection committee.

Of the recipients, Roberta Coates, who has been with the university for almost 15 years, has long been an advocate of students, particularly those belonging to minority racial and ethnic groups. For the last four years, as president of the Black Faculty and Staff Association, she has helped the organization develop an agenda that includes a review of university measures and policies with regard to the African American community. She has also worked to advance the



Roberta Coates

agenda of women of color and has persistently petitioned the university to address the issue of women working in classified positions.

Coates defines herself "as a representative of the larger body of women of color," and views the award as an acknowledgment of the work done by them. "I know that we

can't all get the award at the same time," she said. "But it's affirmation of what many of us do everyday and it's good to see that it's being recognized."



Andrianna Stuart

Stuart, too, has had a long history of involvement with minority issues. The first Native American to receive the award, Stuart is a founding member of the Native American Student Union, and has played a major role in highlighting the Native American presence on campus through the organization of pow wows, campus presentations and art exhibitions.

"As the smallest minority on campus we are in constant danger of being forgotten," she said. "And so I feel that we have to make sure that people know we are around." About the award, she said "I'm proud and excited. I wasn't really expecting it. I always thought that you had to have a Ph.D. or something to get it."

PEPCO Looks to Reduce University's Lighting Costs

You may have seen them walking through your office with little space-age light meters, quietly moving about and doing their business.

They are consultants from PEPCO, the electricity company that serves campus, and are part of a project that should help reduce the university's use of electricity by 35 percent.

Working in partnership with Physical Plant, PEPCO has donated the services of its consultants to help the university assess the efficiency of its lighting.

Dave Shaughnessy, utility engineer for Physical Plant, says that since 1984 the campus has been using a single-

phosphor bulb for its fluorescent lamps, which account for 95 percent of its lighting. These bulbs have been costing Physical Plant some 63 cents a piece.

Three-phosphor bulbs, which create more of the color spectrum as well as save energy, cost about \$3 a piece.

But PEPCO, hoping to avoid building another power plant because of increasing electricity consumption, is offering a rebate to the university, which reduces the cost of the three-phosphor bulbs by half.

Five buildings have already been fitted with the new bulbs: Cole Field House, Hornbake Library, and the Benjamin, Mathematics and Chemistry

End quote

How do you personalize your office? What decorative items do you display?



"A small radio with soft music playing (1260 AM), pictures of my two daughters, and a small plant with colorful dried flowers make my office seem more personal and relaxing."

—Elaine Cockrell, executive administrative aide, Office of Institutional Advancement

"Toys. I've got an 'Incredible Martian Popping Thing' whose ears, nose and eyes pop out when I squeeze his body. I've also got a windsurfing water cube, a rubber penguin, and a Dracula Pez dispenser to offer visitors. It's important to have things that stimulate creativity and relieve stress when things get overwhelming."

—Joe Sugarman, writer/editor, University Publications



"I have personalized my office with lots of plants and by hanging my husband's paintings on the walls. On my credenza, I have pictures of my family and some of my honors students, and many small animal figurines (especially lots of turtles) that my students and colleagues have given me. One of my proudest office possessions is a trophy that I received last spring for participating in the annual Faculty-Student Academic Tournament (the faculty lost!)."

—Jane Lawrence, director, University Honors Program



The award was initiated in 1991 as part of the annual women's history month program in an effort to recognize the work done by women of color to support and strengthen minority groups on campus. "We wanted to recognize what so many women of color have been doing silently for years," said

Oh. "We had one basic criterion, that the recipient be someone who has made an extraordinary contribution to campus minorities."

—KALYANI CHADHA

Truman Scholar

continued from page 1
degree in public policy at UMCP, although he may use scholarship funds for any school in the country.

"I'm tied to Maryland politics and the university has an excellent public policy program. My wife and I also have a house right down the street," he says.

The foundation will pay Shapiro \$3,000 for his undergraduate senior year, and up to \$27,000 for tuition, board and books for two to three years of graduate studies.

Shapiro feels he was chosen for his academic record and long history of public service. At 31, he is not the typical undergraduate student. Shapiro began undergraduate school at Trinity College in 1981 but after three-and-a-half years he left without graduating. "I wasn't a serious student. I played too

much and didn't work enough," he says. "I liked working better than going to school."

After a stint as a financial services broker, and then a night manager at a bookstore, in the mid-'80s Shapiro began working as a grassroots political canvasser. He worked on gubernatorial and congressional campaigns as well as local Maryland mayoral races. In 1992, he returned to undergraduate school at College Park. And last year Shapiro was elected to the town council in Brentwood, Maryland.

Ultimately, Shapiro would like to work as a political organizer, developing leaders. "People need to be more politically active and knowledgeable. They need to feel more powerful," he says. "They need to have more control over their political lives."

Buildings. Still being worked on are the Physics, Tawes Fine Arts, and Elkins Buildings, H.J. Patterson Hall and the Services Building.

In the meantime, the PEPCO consultants continue to assess the lighting of the remaining 30 buildings that are part of the next phase of the operation.

Shaughnessy says that the services they are providing are worth almost \$2 million.

"I think it's helping everyone," says Rick Wheeler, of plant engineering. "The university, the state, the taxpayers, and PEPCO."

While the new bulbs cut down on light output, Shaughnessy and Wheeler say the campus is generally overlit.

"Everyone that we've talked to in Benjamin Building was more than pleased," Wheeler says. "It cuts down on the glare."

Another possibility for energy efficiency is the occupancy sensor, an electronic device that turns off the light automatically if it senses that no one is in the room. Shaughnessy believes they are only efficient for large lighting tasks, but not all of them.

"The problem with occupancy sensors is that if you put one in a classroom and there is a momentary lapse of light due to a malfunction, you have disrupted a class and antagonized a professor," he says.

Physical Plant hopes to bring three-phosphor bulbs to the entire campus by 1997, maybe sooner.

"The hitch-load is the debt," he says. "It's expensive to be poor. We are not poor, but we are limited."

—STEPHEN SOBEK

Next Issue: James MacGregor Burns, the dean of leadership scholars, talks about presidents past and present, and the reinventing of government.

UNIVERSITY OF MARYLAND AT COLLEGE PARK

Outlook

Outlook is the weekly faculty-staff newspaper serving the College Park campus community.

Vice President for Institutional Advancement
Kathryn Costello

Director of Public Information
Roland King

Director of University Publications
Judith Blair

Editor
Jennifer Hawes

Design & Layout
Kerstin Neteler

Assistant Editor
Rita Sutter

Photography
Al Danegger

Editorial Intern
Stephen Sobek

Production Interns
Jennifer Grogan
Regan Gradet
A. Kadry Cisse'

Letters to the editor, story suggestions, campus information & calendar items are welcome. Please submit all material at least two weeks before the Monday of publication. Send material to Editor, Outlook, 2101 Turner Building, through campus mail or to University of Maryland, College Park, MD 20742. Our telephone number is (301) 405-4629. Electronic mail address is jhawes@umdacc.umd.edu. Fax number is (301)314-9344.



Student Employment Week Celebrated April 4-8



Patrick Shannon

More than 5,000 students are employed on campus, and thousands more work off campus. "National Student Employment Week," April 4-8, gives these students a chance to be thanked for their efforts.

Sponsored by the Job Referral Service, the week is intended to increase public awareness of student employment and its role in the education experience, to recognize students who work while attending college, and



Jennifer Plumer

to thank employees who hire students.

Jennifer Plumer, a junior psychology and Spanish double major, has worked for the Office of Commuter Affairs and Community Service Programs for about a year and a half as an office assistant, and has found her experience to be rewarding.

"I've found my home on campus," she says. "My own little niche where I can make a difference. It's kind of like a family."

Plumer worked last summer giving presentations to incoming freshmen at orientations, and has found that her responsibilities at and ties to Commuter Affairs grow more as time wears on.

"I feel like I am already in the real world," she says. "Everybody has their responsibilities and carries them out."

Patrick Shannon, a senior journalism major and an intern in the Office of Public Information's Video Production Unit, believes that on-campus employment has brought him something that other commuters don't have.

"It's gotten me involved with campus," he says. "Before, I would just come and go to my classes and then to my off-campus job. It's a good way to get involved with the community and get paid at the same time."

Wanting to go into public relations, Shannon feels that his experience with the Video Production Unit has helped him to solidify his goals. He now wants to go into video public relations.

Along with the Job Referral Service, the United Parcel Service is sponsoring the 1994 Outstanding Student Employee of the Year awards ceremony and the 1994 Spring Job Fair.

—STEPHEN SOBEK

National Student Employment Week Schedule of Events

Monday, April 4: "Labor Day" Open House. All students, faculty, staff, and area employers are invited to participate in this event, 12-4 p.m., at the Job Referral Service, 3120 Hornbake Library.

Tuesday, April 5: Employer Appreciation Day, including an employer recognition reception to be held at Byrd Stadium's Tyser Tower, 2-3:30 p.m.

Wednesday, April 6: 1994 Outstanding Student Employee of the Year Awards Ceremony, Colony Ballroom, Stamp Student Union, 2-3:30 p.m.

Thursday, April 7: Fourth annual Spring Job Fair, Colony Ballroom, Stamp Student Union, 10 a.m.-2 p.m.

Friday, April 8: First annual Student Employee Talent Show, Tyser Auditorium, Van Munching Hall, 3-4:30 p.m.

You've Got a Ticket to Ride: Faculty, Staff and Students Travel Cheap

They drove a long way to make the cover of *Bus World*.

In 1972, when Shuttle UM began with two vans bought by the Black Student Union, few thought the security call-a-ride program would expand into a student-run transit system commanding a fleet of 40 buses.

For the first five years, Shuttle UM had no permanent funding. By 1976, shuttle employees were housed in a closet off of the Leonardtown laundry room. The buses had no parking facility, no maintenance bay. When mechanics needed to work on engines and brakes they had to do so in a dirt parking lot.

Offices were moved from the laundry room to a trailer, then to a building with one maintenance bay, and now Shuttle UM operates in a full fledged transit facility on Greenhouse Road.

Today, the university's shuttle service employs 130 undergraduates who drive 30 large red and white buses and 10 paratransit vans which transport one million passengers annually.

For unlimited rides, just by showing a university identification, full-time students pay \$57 a year and part-time students pay half that amount. An annual contribution of \$55,000 is taken from faculty and staff parking fees to cover their charge for using the buses.

"We are a self-supporting service. We do not have state funding except for a small grant for the paratransit. We have to make ends meet," says Barri Sanders, Shuttle UM's general manager and one of four non-student staff members.

Sanders says Shuttle UM is the oldest and most completely student run transit system in the United States. "Day to day

operations are run by undergraduates," she says. "They do all of the hiring and firing. Everything."

The three-week training program is in house, Sanders says. Drivers must complete an 80-hour Commercial Driver's License bus training course over summer or winter break, and receive a commercial driver's license from the state. This program, emphasizing safety and maintenance, was developed by students. In addition to training, driving, and managing personnel matters, students attend to bus maintenance and dispatching. Students work part time and full time, as many as 40 hours each week.

Employees begin by gaining hands-on experience as bus operators required to drive regular shifts not to exceed eight hours at a time. Usually, drivers plan their shifts in three-hour intervals and study or go to class in between. It takes 580 shifts each week to run the system.

Buses run 24 hours a day, Monday through Friday. At 6:45 a.m., buses leave Stamp Student Union and run until 7:45 p.m., covering 10 commuter routes serving the residential areas around College Park. From about sundown to 3:30 a.m., buses run on a campus circular security route. When those buses pull in for the night, call-a-ride is available to provide door to door service for students, faculty and staff until 7 a.m.

Paratransit serves mobility-impaired people. Managers look for a good driving record and a good measure of sensitivity in employees who want to drive the vans equipped to accommodate two wheelchairs and six or seven other passengers.



Emily Mellgren, paratransit manager, and David Lennon, Shuttle Coordinator, are two of the 130 students who keep the buses rolling.

Shuttle UM also operates charter buses for student groups, campus organizations or departments. Charters run almost daily in the summer and three to four times each week during the semester. Charters will drive all of Maryland, Virginia and the District of Columbia as long as it is within 50 miles of College Park.

Employee pay is restricted by the university's student pay scale. The average salary is seven dollars an hour, Sanders says. Mechanics can make more if they have been with Shuttle UM for a long time. But most students do not work at Shuttle UM for the money. They do it for experience in running a mass transit system.

Sanders says Shuttle UM has gained a national reputation since making the cover of the trade magazine *Bus World*,

after winning the 1991 Neil Goldschmidt award for safety. The award was given by the American Public Transit Association for having the fewest accidents (that is any time anything touches the bus other than the tires to the road) per mile as compared with other buses in the same class.

Recognition means jobs for students working at Shuttle UM. Sanders gets one to four phone calls each week from transportation industry recruiters who want to hire shuttle employees who will be graduating. She says that 80 percent of managers at Shuttle UM go on to work for state transit companies and transportation consulting firms. "And they do not enter at entry-level positions," she says. "They are able to use their degrees and their experience as real-world experience."

Calendar Mar. 28-Apr. 6



Celebrated pianist Andre Watts performs at the University of Maryland Adult Education Center on Wednesday, April 6, at 8 p.m.

Pianist Andre Watts Performs at Maryland

One of the world's most celebrated classical music artists joins America's premier chamber music organization when pianist Andre Watts performs with the Chamber Music Society of Lincoln Center at the University of Maryland Adult Education and Conference Center on Wednesday, April 6, at 8 p.m.

Watts is the first artist to be named a Chamber Music Society "Guest Artist Member," a new title established as part of the society's 25th anniversary season for renowned performers who make substantial commitments to the society for a complete season.

Watts will perform Brahms' *Trio for Clarinet, Cello and Piano* with cellist Gary Hoffman, the first American to win the Rostropovich International Cello Competition, and clarinetist David Shifrin, the two-time Grammy Award winner and artistic director of the Chamber Music Society of Lincoln Center. Watts then performs Cesar Franck's *Quintet for Piano and Strings in F minor* with violinists Ani Kavafian and Daniel Phillips, violist Paul Neubauer and cellist Hoffman. Completing the program is Ezra Laderman's *Quintet for Clarinet and Strings* (1987).

A free pre-concert seminar on "Romanticism in 20th Century Music," focusing on the Laderman piece, begins at 6:30 p.m.

Watts burst upon the musical scene in 1963 when, at age 16, he played with the New York Philharmonic before a national television audience on CBS. Two weeks later, Leonard Bernstein asked him to substitute for an ailing Glenn Gould in a performance of Liszt's *E-flat Concerto*. Watts also gave the first full length piano recital in the history of television when he performed on "Live from Lincoln Center" in 1976. His 1985 performance on that program was the first full length recital aired nationally in prime time. In the fall of 1993, he made his most recent appearance on the program to celebrate the 25th anniversary of the founding of the Chamber Music Society of Lincoln Center.

Other memorable television appearances have included his internationally broadcast performance with Eugene Ormandy and the Philadelphia Orchestra for United Nations Day, his solo and concerto performances with the London Symphony for the BBC, two PBS broadcasts with Seiji Ozawa and the Boston Symphony Orchestra, and his opening of the Mostly Mozart Festival broadcast on "Live from Lincoln Center" in 1991.

Tickets to Andre Watts and the Chamber Music Society of Lincoln Center are priced at \$20, \$18 for UM faculty and staff, \$17.50 for seniors, and \$8 for full-time students with ID. Tickets are available at TICKETplace (Lisner Auditorium), the Adult Education and Conference Center front desk, and through phone-charge by calling the Concert Society at Maryland at 403-4240.

Arts

Performance Art and Film

Demonstration: Thu., Mar. 31, "Sex, Truth, and Videotapes," Maria Beatty and Goddess Rosemary, 7:30 p.m., 2309 Art/Sociology. Call 5-2853 for info.

University Theatre: *Etta Jenks*, Tue., Apr. 5, and Wed., Apr. 6, 8 p.m., Pugliese Theatre, \$10, students and seniors \$7. Call 5-2201 for info.*

Mozart Piano Sonata Cycle

Recital 4: Tue., Apr. 5, Carlos Cesar Rodriguez, 8 p.m., Tawes Recital Hall. Call 5-2201 for info.

Literature Reading: Wed., Apr. 6, Molly Bendall and Maxine Clair, 7:30 p.m., Maryland Room, Marie Mount. Call 5-3820 for info.

The Concert Society at Maryland Chamber Music Series:

Wed., Apr. 6, Chamber Music Society of Lincoln Center, with pianist Andre Watts, 8 p.m., UMUC Center of Adult Education Auditorium, \$20, students \$8. Free pre-concert seminar, 6:30 p.m. Call 403-4240 for info.*

Lectures

Harrison Program on Future

Global Agenda Lecture: Mon., Mar. 28, "North Korean Dilemma: Future Problems and Prospects," Chung-in Moon, University of Kentucky, 12:30 p.m., Carriage House, Rossborough Inn. Call 5-7490 for info.

Horticulture Colloquium Series:

Mon., Mar. 28, "Improving Horticultural Crops Through Bio-Engineering," Autor Mattoo, USDA-ARS, 4 p.m., 0128 Holzapfel. Call 5-4355 for info.

Entomology Colloquium: Mon., Mar. 28, "Monitoring, Selection, and Characterization of BT Susceptibility in Colorado Potato Beetle," Rob Everich, 4 p.m., 0200 Symons. Call 5-3911 for info.

Zoology Dissertation Colloquium:

Tue., Mar. 29, Jon Ballou, noon, 1208 Zoology/Psychology. Call 5-6887 for info.

Distinguished Scholar-Teacher

Lecture: Wed., Mar. 30, "Teaching About Gender and Science," Margaret Palmer, 4 p.m., 2203 Art/Sociology. Call 5-9363 for info.

The Israel Committee and

Meyerhoff Center Lecture: Thu., Mar. 31, Liz Rose, U.S. National Holocaust Museum, noon-1 p.m., 0135 Lefrak. Call 5-4980 for info.

Institute for Systems Research

Colloquium: Thu., Mar. 31, "On the Intelligent Processing of Materials," Julian Szekely, Massachusetts Institute of Technology, 2 p.m., 1100 Instructional Television Facility. Call 5-6634 for info.

Committee on History & Philosophy of Science

Colloquium: Thu., Mar. 31, "Understanding Invention: The Example of the Telephone," W. Bernard Carlson and Michael Gorman, University of Virginia, 4 p.m., 1117 Francis Scott Key. Call 5-5691 for info.

Zoology Lecture: Fri., Apr. 1, "The Vocal Trait in Bird Song and Motor Biases in Communication," Stephen Nowiki, Duke University, noon, 1208 Zoology/Psychology. Call 5-6887 for info.

History and Theory of Music

Lecture: Fri., Apr. 1, "At the Edges of Tonality: Prolongational Structure in Late 19th and Early 20th Century Music," Robert Morgan, Yale University, 3 p.m., 2154 Tawes Theatre. Call 5-2201 for info.

Horticulture Colloquium Series:

Mon., Apr. 4, Larry Sikorra, Beltsville Agricultural Research Center, 4 p.m., 0128 Holzapfel. Call 5-4355 for info.

Entomology Colloquium: Mon., Apr. 4, Nancy Breisch, 4 p.m., 0200 Symons. Call 5-3911 for info.

Zoology Lecture: Tue., Apr. 5, "The Energetics of Calling in Tropical Frogs," Cathy Robb, University of Connecticut, noon, 1208 Zoology/Psychology. Call 5-6890 for info.

Distinguished Scholar-Teacher

Lecture: Wed., Apr. 6, "Place, Time, and Architecture," William Bechhoefer, 4 p.m., 2203 Art/Sociology. Call 5-9363 for info.

Latin American Studies Lecture:

Wed., Apr. 6, "Human Understanding and (Latin) American Interests," Walter Mignolo, Duke University, 5 p.m., St. Mary's Hall Multipurpose Room. Call 5-6451 for info.

Meetings

PCWA/CISSM/Women in

International Security Panel: Mon., Mar. 28, "Careers in Foreign and Defense Policy," 5-7 p.m., 1207 Van Munching. Call 5-6712 for info.

Counseling Center Research and Development Meeting:

Wed., Mar. 30, "Women, Images and the Media," Paula Matabane, noon-1 p.m., Shoemaker Testing Room. Call 4-7690 for info.

College Park Senate Meeting:

Thu., Mar. 31, 3:30-6:30 p.m., 0200 Skinner. Call 5-5805 for info.

President's Commission on

Women's Affairs Meeting: Mon., April 4, noon-2 p.m., room 1102 Francis Scott Key. Call 5-5806 for info.

Counseling Center Research and Development Meeting:

Wed., Apr. 6, "Impact of the Therapeutic Relationship with Sexually Abused Girls and Their Level of Comfort in

Counseling," Lisa Moon, noon-1 p.m., Shoemaker Testing Room. Call 4-7690 for info.

Counseling Center Research and Development Meeting: Wed., Apr. 6, "Academic Gender Discrimination and Women's Behavioral Agency Self-efficacy," Julie Ancis, noon-1 p.m., Shoemaker Testing Room. Call 4-7690 for info.

Computer Science Meeting: Wed., Mar. 30, "Computer Science: A Working Partnership Joining Government, Industry, and Academia," 9 a.m.-5:30 p.m., UMUC Adult Education Center Conference Center. Call 5-2774.

Miscellaneous

Career Center Open House: Wed., Mar. 30, noon-4:30 p.m., Career Resource Center, South Wing, Hornbake. Call 4-7225 for info.

Eastern Europe Film Series: Fri., Apr. 1, *Crossed Lines*. A sociologist and former Solidarity leader takes a job as a taxi driver to support his family, 3:30 p.m., 1120 South Campus Surge. Call 4-8418 for info.

Diversity Film Series: Sun., Apr. 3, through Sat. Apr. 9, *People First*, every hour on the hour. Demonstrates ways to break down both physical and attitudinal barriers in libraries seeking to serve patrons or employ individuals with disabilities; 38 minutes. Nonprint Media, 4th floor, Hornbake. Call 5-9236 for info.

Seminars

Space Science Seminar: Mon., Mar. 28, "Multi-Satellite Observations of Dayside Field-Aligned Current Systems," Shin Ohtani, Johns Hopkins University, 4:30 p.m., 1113 Computer and Space Sciences. Call 5-6232 for info.

Molecular and Cell Biology

Graduate Program Seminar: Wed., Mar. 30, "Energetics of Protein Folding Reactions," Philip Bryan, Center for Advanced Research in Biotechnology, 12:05 p.m., 1208 Zoology-Psychology. Call 5-6991 for info.

Institute for Systems Research

Seminar: Wed., Mar. 30, "Risk Sensitive Control of a Hidden Markov Model," Robert Elliott, University of Alberta, Canada, 2 p.m., 2168 A.V. Williams. Call 5-6634 for info.

UMIACS Seminar on Algorithms:

Thu., Mar. 31, 3:30-4 p.m., 1112 A.V. Williams. Call 5-6722 for info.

Meteorology Seminar:

Thu., Mar. 31, "Air-sea Interaction in the Seasonal Cycle," George Philander, Princeton University, 3:30 p.m., 2324 Computer and Space Sciences. Coffee and cookies will be served at 3 p.m. Call 5-5392 for info.

ENRE 648I/ENNU 648Z/ENMA

697A Seminar: Thu., Mar. 31, "Wafer Bonding for Electronics Applications: Materials and Radiation," Witek Maszara, Allied Signal, 5 p.m., 2110 Chemical and Nuclear Engineering. Call 5-5208 for info.

ENRE 607 Reliability Seminar:

Thu., Mar. 31, "The Principle of Similarity in Accelerated Life Models," Mark Kaminskiy, 5:15-6:15 p.m., 1100 Instructional Television Facility. Call 5-3887 for info.

Institute for Systems Research

Seminar: Fri., Apr. 1, "Controller Design for Robust Performance Under Breadwidth Limitations," Suhada Jayasuriya, Texas A & M University, 2 p.m., 1112 A.V. Williams. Call 5-6634 for info.

Space Science Seminar:

Mon., Apr. 4, "Egret Observations of Active Galactic Nuclei," R.C. Hartman, NASA

Goddard Space Center, 4:30 p.m., 1113 Computer and Space Sciences. Call 5-6232 for info.

Molecular and Cell Biology

Graduate Program Seminar: Wed., Apr. 6, "Structure and Function of the Hairpin Ribozyme," John Burke, University of Vermont, 12:05 p.m., 1208 Zoology/Psychology. Call 5-6991 for info.

Sports

Baseball: Mon., Mar. 28, vs. Howard, 2:30 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Tue., Mar. 29, vs. West Virginia, 1 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Wed., Mar. 30, vs. Lehigh, 2:30 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Thu., Mar. 31, vs. UMES, 1 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Fri., Apr. 1, vs. Duke, 3 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Sat., Apr. 2, vs. Duke, 2 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Sun., Apr. 3, vs. Duke, 2 p.m., Shipley Field. Call 4-7122 for info.

Baseball: Wed., Apr. 6, vs. James Madison, 3 p.m., Shipley Field. Call 4-7122 for info.

Workshops

Peer Computer Training: Mon., Mar. 28, "Introduction to WordPerfect Windows," 6-9 p.m., 3330 Computer and Space Sciences, \$5. Call 5-2945 for

info.*

Peer Computer Training: Tue., Mar. 29, "Quattro Pro," 6-9 p.m., 3330 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Peer Computer Training: Wed., Mar. 30, "Networked Resources, Part 1," 6-9 p.m., 4352 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Peer Computer Training: Thu., Mar. 31, "Intermediate WordPerfect Windows," 6-9 p.m., 3330 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Peer Computer Training: Mon., Apr. 4, "MacWrite," 6-9 p.m., 3332 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Center for Teaching Excellence

Faculty Workshops: Tue., Apr. 5, "Teaching Matters," Lilly-CTE Teaching Fellows, 2-5 p.m., Maryland Room, Marie Mount. Light refreshments will be served. Call 5-9368 for info.

Peer Computer Training: Tue., Apr. 5, "Intro to UNIX," 6-9 p.m., 4352 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Peer Computer Training: Wed., Apr. 6, "Networked Resources, Part 2," 6-9 p.m., 4352 Computer and Space Sciences, \$5. Call 5-2945 for info.*

Calendar Guide

Calendar phone numbers listed as 4-xxxx or 5-xxxx stand for the prefix 314- or 405- respectively. Events are free and open to the public unless noted by an asterisk (*). For more information, call 405-4628.

Listings highlighted in color have been designated as Diversity Year events by the Diversity Initiative Committee.

University Theatre Presents "Etta Jenks"

The New York Times once described "Etta Jenks" as a sardonic, eye-opening plunge into a contemporary netherworld. "[Etta Jenks] may chill theatergoers with its amoral air, but as a slice of seamy life, it has the hard-edged intensity of a Martin Scorsese film."

University Theatre brings Marlane Meyer's "Etta Jenks" to College Park, April 5-9 and 13-16, at 8 p.m., in Pugliese Theatre. A matinee is presented on Sunday, April 10, at 2 p.m.

The production, which chronicles the life of a woman dragged into the pornographic industry, is directed by Mitchell Patrick Hebert, associate professor of theatre, and features set design by Kristin Thompson; costume design by Andre Harrington; lighting design by Tom McCarthy; sound design by Mark Fink and Mitchell Patrick Hebert; and technical direction by David Kriebs.

On Sunday, April 13, Susan Leonardi, associate professor of English, discusses "Where the Body Ends and the Soul Begins" at the noon "Theatre: Sounding the Humanities" brown bag symposium. The symposium is free, open to the public and held in 1102 Francis Scott Key Hall.

Before the April 14 performance, the audience is invited to "Meet the Artists," a presentation by the director and designers who created this production. The discussion is free and begins at 7 p.m. in Tawes Experimental Theatre. No tickets are necessary and seating is available on a first come, first served basis.

Sign interpretation is available April 16. Pugliese Theatre is accessible to people with physical disabilities.

Tickets are \$10, \$7 for students and senior citizens. Special group discount rates are also available. For reservations or additional information, call the University Theatre Box Office at 405-2201 (voice and TTY), weekdays, from 11 a.m. to 4 p.m.



Culture Shock: Women Caught Between Two Worlds



John Consoli

Patricia de los Rios

Loneliness, confusion, fear. Women moving to the United States from other cultures know these feelings well. They also know the tension of assimilating into a new world while remaining rooted in the old. A number of women on campus who manage this tension not only survive, they thrive. Several will share their stories during a panel discussion at the International House (Dorchester Hall) on March 28, from noon to 2 p.m., as part of the university's diversity initiative.

Some have made America their permanent home. Others plan to return to their countries of birth, bringing with them the richness of U.S. culture. All agree that approaching cultural differences with an open mind offers unprecedented opportunities for personal growth.

Patricia de los Rios, Mexico

A Ph.D. candidate in political science, de los Rios laments that Americans tend to be stand-offish while her Mexican compatriots ooze affec-

tion. "We Mexicans are always embracing each other," she says. "And that goes across age and gender lines. In America, you have to take great care not to invade someone's personal space."

But more alarming to her is the growing distrust she perceives between men and women engendered by the threat of sexual harassment. "There are many real problems with sexual harassment," she says, "but I also see a Puritan thing run amok. Anymore, you cannot have an interview with a male professor with the door closed, for example."

"I have American friends who tell me if a professor says their earrings are very nice, that's sexual harassment. With my coworkers in Mexico City, if a man has a nice tie, of course I'd tell him. Here I could not dare. Of course, in

Mexico, we have all kinds of problems with machismo, but I find all these late developments in the U.S. very disturbing."

Duduxile Moerani, South Africa

As a black woman in South Africa, racial confrontation was a way of life for Duduxile Moerani, a graduate fellow in education policy, planning and administration. Entering a public building, requesting a legal document from a government worker, encountering a traffic cop—any everyday occurrence could reopen the ugly wound of apartheid.

"Here in the United States, it has been a cultural shock for me to be treated with dignity

every place and not to have to negotiate my identity each time," she says. "I walk into certain areas and I'm just like everyone else. At home, people see the color, not the person. It is a tremendous relief to be free of this burden of oppression."

"Having experienced democracy, there is no way I can go back to South Africa and not be treated with dignity. I cannot go back and be overlooked for a job just because I am a woman."

Moerani sees South African women as holding symbolic power only—useful for inspirational purposes during the struggle against apartheid but essentially without substance. Many American women, on the other hand, hold real—albeit limited—power, something Moerani draws encouragement from.

"Seeing women in higher education, in administration, in politics, is amazing," she says. "It shows that women can hold such positions, even if I know within my own culture these achievements will take time."

Moerani wants to bring this empowerment of women back to her native culture when she returns to South Africa to help pioneer women's studies there.

Suriya Kaul, India

A staff person in the College of Arts and Humanities, Suriya Kaul's lessons in the spirit of rugged American individualism came fast on the heels of her husband's death five years after they moved to the States. As a young widow with three teenage daughters, Kaul learned the American virtues of independence and assertiveness. And she learned fast.

"In India, women are raised to be submissive," she notes. "Here I had to learn to

stand on my own feet. I developed faith in my own abilities to cope in a new country without my husband or old friends. It was tough, but I learned to survive."

When loneliness threatened to undo her, Kaul made friends through volunteering. She learned to balance a checkbook, buy insurance, and manage a car—responsibilities husbands and fathers generally handle in India.

"But American women do all these things. These women are efficient and inde-

pendent. I learned to be like them. You've got to take these good things from the new culture. You should always be willing to learn."

Nthakoana Peko, Lesotho

All women straddle at least two cultures, according to Nthakoana Peko, an administrator in the Academic Achievement Program. "Home and the workplace are two entirely different cultures," says the native of a tiny county nestled within South Africa.

"Many cultures make up a woman. I think the trick to finding peace with yourself, no matter how many cultures you embrace, is to understand as much about those cultures as possible. That helps you move with ease from one culture to another."

"Defining yourself—rather than letting others define who you are—is the key to integrity," she adds. Women do not really change from culture to culture,

she says. What changes is the manner in which [a woman] chooses to deal with those cultures."

In fact, Peko prefers not to perceive herself as belonging to any one culture. "At the risk of sounding naive, I would say I am of the world, rather than of one particular country. I embrace the world and all its different elements as a learning place to make me a better person. Then the cultural differences no longer need be overwhelming."

While conversing with other members of the Lesotho community on campus, Peko often finds herself using two languages in one sentence. Such back-and-forth fluency comes naturally. "I think it illustrates the ease with which we can leave one culture and enter another. It's easy when we allow cultural differences to enrich rather than alienate us."

—UNA MCMANUS



DIVERSITY
AT-UMCP
MOVING
TOWARD
COMMUNITY



John Consoli

Duduxile Moerani



John Consoli

Suriya Kaul



John Consoli

Nthakoana Peko

Take note

Teachers Forum Explores Incentives for Excellence

Teaching matters. That's why the 1993-94 Lilly-CTE Teaching Fellows have sponsored a campus wide forum on the subject on Tuesday, April 5. In addition to faculty and TAs, all graduate students and interested undergraduates are invited to attend.

The forum follows up on last year's teaching symposium which called for an expanded discussion and further exploration of recommendations concerning incentives to encourage excellence in teaching, improving and evaluating teaching, weighing teaching in the hiring process and preparing to teach as part of graduate student education. This year the focus shifts to more grass roots aspects of these and other topics related to real classroom issues and opportunities.

Provost Daniel Fallon will provide a brief keynote address about teaching on the College Park campus at 2 p.m., in 0200 Skinner Hall. Participants will then move into working sessions on specific topics including teaching portfolios, mitigating the juggernaut of large classes, the researcher as teacher, personal rewards from teaching, postmodern pedagogies, technology and teaching, course evaluations, and fearless thinking.

At 4:30 p.m., participants will gather to exchange ideas and recommendations developed in the working sessions. For more information, call Maynard Mack Jr. (405-9360) or Jim Greenburg (405-9368).

Freewing Founder Receives Excellence in Design Award

Hugh Schmittle, CEO of Freewing Aerial Robotics Corp., based at the university, is one of three Excellence in Design winners chosen by *Design News*, the leading trade publication for design engineers.

Schmittle's award is for development of an unmanned "freewing tilt-body" aircraft that significantly diminishes in-flight turbulence, is stall-resistant and can take off and land like a helicopter.

Freewing Aerial Robotics has just signed a partnership agreement with a major European aerospace company to jointly market the company's freewing aerial vehicle.

The basic application for the freewing will be in law enforcement and the military. Because it takes off like a helicopter, landing fields aren't necessary. In flight, its resistance turbulence makes it a perfect platform for patrolling borders, target acquisition, damage assessment and photo reconnaissance.

Schmittle's freewing design allows the fuselage to move in relation to the device's freewing. This allows the fuselage to tilt its propeller skyward for helicopter-like landing and takeoff. The freewing has the same ability to move in relation to wind turbulence, which makes the plane so stable in flight.

Schmittle was honored earlier this month by his fellow engineers in Chicago at the *Design News* awards dinner. He received a \$5,000 Excellence in Design award from Computervision, Bedford, Mass.

University Hosts Rising Stars Conference

The Center for Political Leadership and Participation is searching for more than 300 high school students who want to be among tomorrow's leaders. These students will be the featured participants in the center's sixth annual Rising Stars Conference planned for May 4 on campus.

This one-day training program, co-sponsored by the Student Government Association, will help high school students sharpen their leadership skills and explore some of the critical issues facing their generation. Each Maryland high school has been asked by the governor to select one freshman and one sophomore to attend the event. About 100 at-large seats are also available.

Conference attendees will engage in hands-on training on topics including identifying personal vision, public speaking, dressing for success and how to inspire people to work for and contribute to our vision. A debate on the issue of crime is also planned.

Center Director Georgia Sorenson said the goal of the program is to have the students return to their schools with newly acquired skills that will augment their confidence as potential leaders in the future.

Faculty Assess the Changing Military

The Army of the 21st century will be a small, highly specialized professional force, supported by a military reserve structure, says David Segal, professor of sociology. He foresees a force relatively isolated from society, and self-contained in military communities where soldiers will live as well as work. There will be pressure to roll back changes made in the integration of women in the Army, at least for those with children. And pressure will continue for the exclusion of homosexuals.

Segal and his wife, Mady, also a professor of sociology, are two of the nation's leading military sociologists and faculty members in the only program in the nation that studies the human dimension of the military. The two have assessed and addressed issues being faced by the U.S. military as it responds to changes in the world situation and to social changes at home.

The Armed Forces are nearly unique in the combination of demands they place on service members and their families, says Mady Segal. These demands include the risk of injury and death; frequent geographic relocation, sometimes to foreign countries; family separations; long and unpredictable work hours; and, at times, isolation from civilian society. Military family life is also challenged by an environment that is not always compatible with family life; it is an environment characterized by masculine norms that place a high value on efficiency, hierarchy, dominance, power and control of emotions. The military, which is dependent upon the retention of its highly skilled and trained personnel and the mission readiness of its troops, must take into account these challenges to its personnel and their families and make policy decisions and set program priorities to assure a decent quality of life for its troops. Changes in family patterns, gender roles and the role of the military, suggest that old policies and priorities may need to be reviewed and revised.

Inbrief

College Park Senate Meets—The next meeting of the College Park Senate is scheduled for Thursday, March 31, at 3 p.m., in room 0200 Skinner Hall. Michael Seelman, student regent to the UM System Board of Regents, is the featured speaker. Agenda items include a new policy on differential tuition for graduate programs, a revision to the Policy on Appointment, Promotion and Tenure of Faculty concerning the granting of emeritus status, and resolutions on the President's Action Plan Toward Diversity Goals. Five motions for revision of the Senate Bylaws will be considered. The meeting is open to the campus community. For more information, call 405-1243.

Tackling the Tough Issues—To give voice to issues, build cohesion and disseminate information, the President's Commission on Women's Affairs Associate Staff Committee sponsors an open forum on associate staff issues on Thursday, April 7, from 3:30 to 5:30 p.m., in room 0135 Reckord Armory. Speakers include Cindy Hale, chair, Council for University Systems Staff; Charles Sturtz, vice president for administrative affairs; and Erytheia Wilkes, assistant director, personnel. For more information, contact Nehama Babin at 405-5590.

A Change in Schedule—The President's Commission on Women's Affairs Meeting originally scheduled for Monday, March 28, was postponed and has been rescheduled for Monday, April 4, from noon to 2 p.m., in room 1102 Francis Scott Key Hall. Susan Bayly, of the president's legal staff, will discuss Title IX, sexual harassment, and other legal topics pertaining to women. For more details, call Mary Shipley at 405-5806.

Mammography Screenings—Registration for Club Maryland's (the state employee wellness program) mammography screening will be held on Wednesday, April 13, from 11 a.m. to 1:30 p.m., in room 2100H of the University Health Center. These worksite mammograms are provided by the University of Maryland Cancer Center's Mobile Mammography Screening Service, fully accredited by the American College of Radiology. The mammography screening dates are May 4 and 5 and the mobile van will be located in Lot T. Call 405-2438 for further details.

Secretarial Achievements—Each year, the President's Commission on Women's Affairs recognizes the outstanding achievement of clerical and secretarial staff at the university. Any member of the campus community may nominate a staff member and nominations are due April 13 at 2104 Stamp Student Union, Attn: Joyce Alexander. The award will be presented at the Professional Concepts Exchange Conference Luncheon on June 3. For more information, call Joyce Alexander at 314-8503, or Barbara Bennett at 314-9401.

The PC Decade—More than an issue, political correctness has become an obsession. College Park enters the culture wars with "PC: The Great Debate," a panel discussion on Tuesday, April 5, from noon to 2 p.m., in the Stamp Student Union Atrium. Rhonda Williams, assistant professor of Afro American studies, will moderate. Panelists include: Susan Bayly, of the President's legal staff; Daniel Fallon, university provost and vice president of academic affairs; Hal Sigall, professor of social psychology; Jason Palmer, an undergraduate student; Will Liu, a graduate student; and Lafayette Barnes, director of external affairs for the School of Public Affairs. For more information, call 405-2838.

Getting Ahead—The Summer Institute for Women in Higher Education Administration will be held June 26-July 22 to train female faculty and staff members for mid-level and high-level administration. Deadline for applications is April 4. For information, call Virginia Beauchamp at 405-7225 or (301) 474-7183.

Talented, Crafty Staff—The Classified Issues Committee of the President's Commission on Women's Affairs invites all classified staff to attend and participate in "Diversity at UMCP: Moving Toward Community" Focus on Diversity, through April 14. The International Cultural Fair and opening ceremonies for diversity week take place on Monday, April 11, from 10 a.m. to 3 p.m., at Hornbake Mall. Celebrate your diversity by sharing your talents with the campus community. Sell or display your arts and crafts at a special booth for classified staff. For more information, call Joyce Bell at 405-2656 or Mary Giles at 405-2438.

History of Art—Patricia Mainardi, professor of art history at Brooklyn College and the Graduate Center of the City University of New York, discusses "What We See, What We Don't See, and What Nobody Wants to See: Visual Imagery and Social History," at the Middle Atlantic Symposium in the History of Art, April 8 and 9, in the Art/Sociology Building. The symposium is co-sponsored by the Department of Art History and Archaeology and the National Gallery of Art's Center for Advanced Study in the Visual Arts. Mainardi's talk is followed by a 7:30 p.m. dinner (by subscription) in the Atrium of the Art/Sociology Building. On Friday, April 9, graduate students will present papers at the National Gallery of Art. For more information, call 405-1480.

Reading Time—The libraries seek readers for their "Read Aloud" event on Wednesday, April 20, from 11 a.m. to 5 p.m., in honor of National Library Week. The event will feature a different reader every 10 minutes and will run concurrently with a library book sale on the mall. Anyone interested in reading should contact Sharon Beck at 405-9119.

Post-Cold War Science

Gorbachev's Old Advisor Directs the East West Space Science Center

Roald Sagdeev does not consider himself to be part of the Soviet brain drain. He left the Space Research Institute in Moscow for the institution of marriage.

The director of the university's East West Space Science Center, and a distinguished professor of physics, came to the United States for love. "My family is here now. I have an American wife. That's how it happens," Sagdeev's voice is soft, almost weary, as he answers the predictable question of how he came to leave his native Russia.

Originally, in the U.S.S.R., Sagdeev was a theorist in plasma physics and controlled fusion. Then he changed his focus to space physics. Unfortunately, Sagdeev says, this was not pure science in his case. He was also an administrator.

For 15 years, from 1973 until 1988, he was the director of the Space Research Institute in Moscow. He was also a space and arms control advisor to Mikhail Gorbachev.

In Sagdeev's tenure, the space institute sent unmanned spacecraft to Venus, Mars and the moon, and launched astrophysical observatories into orbit. In the late 1970s and early '80s, as cooperation in space science increased between the two countries, Sagdeev often visited the United States.

Sagdeev says competition between American and Soviet space science was no fiercer than competitiveness between American and European space science. Even before the end of the Cold War, there were joint projects with the United States and the Soviet Union.

"There was not too much political sentiment between scientists," he says. "We simply wanted to use every opportunity to increase our chances for exploration."

The politicians were too busy playing their own games, Sagdeev says, to notice how much scientists were cooperating. "The moment they would discover something they would send chilling messages to us. Something like, 'Don't hurry too much.'"

Sagdeev says he felt the presence of Big Brother in the 1930s when he was a student at the University of Moscow and for a while after World War II, until Stalin died. "Then the system was unable to continue this type of approach to its citizens so there was some relaxation, a loosening of controls beginning with Khrushchev's time," he says. "And of course Gorbachev was the ultimate personification of breaking all of the old rules."

But even in the mildest periods, while Gorbachev was president, before the collapse of the Soviet Union, scientists in Russia were not as free as scientists in the United States.

Sagdeev says every time he had to cross Soviet borders he had to have special permission from the Kremlin's Central Committee of the Communist Party. The communists were afraid that citizens would leave Russia and ask for political asylum elsewhere. Now, for the moment, Sagdeev says, the Russian government does not stand in the way of scientists emigrating because "the situation with science is especially terrible. It looks like science is the last thing government is caring about, because of



Bill McNell

lack of money."

In past Soviet life, science was the "beloved toy" of the government. "There was nothing better than flexing muscles by sending missions to Mars or Venus, or the space station," Sagdeev says. Today, there is no budget for such expensive displays. Economics in Russia is causing scientists to change fields. Young entrepreneurial people are going into business. In Russian science today

free but... Russians are getting better at understanding that abstract human rights, political rights, without economic framework also mean very little."

The ideal is somewhere in between, Sagdeev says. "Unfortunately, history doesn't give us a chance to cancel the trial and to start again."

The East West Space Science Center began when Maryland decided to create institutions to foster cooperation with

the Russian space program, it also damages international cooperation in space."

For example, Sagdeev says, Russia is partners with NASA on the space station but Russian participation in the project requires launches from Baikonur. "Russia cannot replace Baikonur in a simple way," he says.

Baikonur represents 40 years of investment by space-age Russia. Until recently, Sagdeev says, Baikonur was launching more objects into space than the rest of the world. Since the breakup of the Soviet Union, Baikonur's infrastructure has been declining. But the real problem, Sagdeev says, is that Russia used free labor, soldiers and conscripts from across the Soviet Union to build Baikonur which is in a harsh, semi-desert. "So Kazakhstan perceives the presence of Russian military as the presence of foreign occupation troops."

The second problem is Kazakhstan's unhappiness with the environmental damage caused by 40 years of continuous launches. Russia was using, until now, "environmentally unfriendly fuel" in their version of rocket boosters. "If this liquid would leak into the soil," he says, "it is kept by the soil for decades."

"If it would get into the lung, it acts like chemical warfare."

So a few months ago the Kazakhstan government asked the East West Space Science Center to advise them in defining the future status of Baikonur. The two governments had their first round of meetings a week ago. "They still have to walk a large distance," Sagdeev says, ever the diplomat. "Both sides."

Roald Sagdeev's autobiography, *The Making of a Soviet Scientist*, will be out in April. His wife, Susan Eisenhower, Ike's granddaughter, edited the book which received good pre-publishing reviews from *Kirkus* and *Publishers Weekly*.

The politicians were too busy playing their own games, Sagdeev says, to notice how much scientists were cooperating. "The moment they would discover something they would send chilling messages to us. Something like, 'Don't hurry too much.'"

—Roald Sagdeev

is an older generation of "immobile" scientists close to retirement and only the "most faithful" of the younger generation of scientists, who "are ready to sacrifice their material life conditions to do even some modest science."

Sagdeev, like many of his countrymen, thought changes in the former Soviet Union would be slower and more ordered.

"In that sense, many Russians are envying the Chinese now," he says. "They think the Chinese are very much wiser in their approach to reforms."

He adds that it is difficult to compare Russia and China. "On one hand you have a prospering economy but political changes are coming very slow, and so people are unhappy with human rights, but on the other hand there is Russia with tremendous political changes," he says. "Everyone is virtually

the Soviet Union in business, science and technology. This was in the late 1980s when the Soviet Union was still intact and Gorbachev was popular. "By sheer coincidence, I happened to come here and my colleagues asked me to help establish such an East-West center," Sagdeev says.

The original idea of embracing every field of science and technology was narrowed to space science and the space science community in Russia and the former Soviet republics. One recent project focused on Baikonur, the biggest Russian launching site, which inconveniently—since the breakup—is not part of Russia but is located in Kazakhstan. "And Kazakhstan discovered that it had inherited a treasure and it immediately caused a conflict between the two countries," Sagdeev says. "This conflict not only damages