



DEDICATED HACK—At last Friday's Corporation meeting, Building E40 was renamed the Muckley Building in recognition of the beneficence and long service to the Corporation by Harold J. Muckley '39 (above with Mrs. Muckley). The dedication ceremony was brightened by discovery of a hack, the covering of the plaque by a cardboard replica naming the building "E. Phortey" in recognition of the "stewardship of W.D. Phortey '40 and N. Dallas Phortey." **Photo by L. Barry Hetherington**

NEW TECHNIQUE

Got a Sick Fish? Try Ultrasound

By Elizabeth A. Thomson News Office

A n invention developed at MIT could revolutionize the fishfarming industry by providing an easy, efficient way to treat sick fish, vaccinate them to prevent diseases, or administer other compounds such as reproductive hormones to get fish to spawn.

In the MIT technique ultrasound is applied to water containing fish and the vaccine, antibiotic, or other compound of interest. In initial experiments, the scientists found that the technique was very effective in getting a reproductive hormone into goldfish.

Currently, all other ways of administering such compounds are either commercially impractical or inefficient. For example, the only reliable way to vaccinate fish is to inject each individual animal. "That is impossible on a large scale, and for some fish injection is too stressful," said Yonathan Zohar, a visiting scientist in chemical engineering and the leading researcher in the work. result, they have applied for a patent on the invention. "We think it has great potential," said Dr. Zohar, who is also an associate professor at the University of Maryland's Center of Marine Biotechnology.

The ultrasound invention grew out of MIT research by Robert Langer, Germeshausen Professor of Chemical and Biochemical Engineering, and colleagues on the use of ultrasound to enhance drug delivery to humans. "We sort of jointly wondered if ultrasound would enhance the transport of compounds to fish, and it did," Dr. Langer said.

The other principal researchers in the work are Joseph Kost, a visiting scientist now at Ben Gurion University in Israel and an expert on ultrasound, and Antony D'Emanuele, a postdoctoral associate now at the University of Manchester in England.

In initial experiments, the group exposed goldfish to ultrasound for 10 to 15 minutes. The water the fish were in contained one of two model molecules "to represent the range of products that might be of interest to the times afterwards (fish were anesthetized to remove the blood). In the end, they found that fish exposed to ultrasound had a 10 to 20 fold increase of the model molecule in their blood, as compared to fish that had not been exposed to ultrasound.

Dr. Zohar suspects that the hormones are getting into the fish through their skin and gills. How?

"We think that with ultrasound we're changing the permeability of those tis-

sues for a short time," he said. So the hormones can get in the fish during ultrasound and probably for a little while afterwards, but then the permeability returns to normal and they are locked in the fish.

(continued on page 6)

Families to Visit Campus

FIRST REPORT

Vest: Ideological Attacks Hurt Universities

A merican research universities are being buffeted by a storm of external actions and issues—some of them ideological and government-inspired—that threaten to undermine public support for higher education, the president of MIT said in his annual report released Friday, Oct. 4.

Dr. Charles M. Vest, completing the first year of his MIT presidency after serving as provost at the University of Michigan, said the situation is related to an underlying "erosion of the partnership between the federal government and our research universities."

But he also identified two specific major sources of changing public perceptions and attitudes toward research universities.

"First, there is a growing wave of populism and an associated widespread distrust of expertise, excellence, and privilege, whether real or perceived," he said.

"Second, there have been direct assaults, largely on ideological grounds, against our universities," he continued. "These began in earnest when William Bennett used his pulpit as Secretary of Education to attack American higher education."

"The flames he ignited," Dr. Vest said, "were fanned by others," including the "picture of the presumed decline of higher education" painted by Allan Bloom in his book, *The Closing* of the American Mind, and the "intemperate portrait of the American professoriat" by Charles Sykes in *Profscam*.

Such criticisms of universities, Dr. Vest said, "have struck a resonance with the public, which had taken account of rapidly rising tuitions and come to believe, almost antithetically, that the quality of teaching and the commitment to undergraduate education had degenerated."

Against this backdrop, he said, came three "catalytic federal actions"—the investigations at Stanford, MIT and other universities of alleged abuses of the system for reimbursement of indirect costs of sponsored research; the continuing investigation of fraud charges associated with university research; and the investigation by the Justice Department of alleged conspiracy and price-fixing among universities in the area of financial aid.

Less publicized issues, he said, included investigations about conflicts of interest on the part of faculty with strong ties to industry; debates about technology transfer from US universities to foreign countries, particularly Japan; criticisms about the numbers of foreign students studying engineering and science in American universities; and a continuing decline in the effective level of federal financial support of students.

Dr. Vest said the present situation "means, basically, that our universities are not immune to the strains present in our society, and that the tight budgetary times and shifting, or indeed uncertain, federal priorities are likely to (continued on page 5)

IN BRIEF

COLLOQUIUM TODAY

The MIT Colloquium, Teaching within a Research University, with President Charles M. Vest, Provost Mark S. Wrighton, a panel of ten faculty members and and former students. Governor Michael Dukakis as interlocutor, will begin at 4pm today (Wednesday, Oct. 9) in Kresge Auditorium. The plenary session will be followed by departmental dinners for further discussion. Papers for the post-colloquium publication are still being accepted (hard copy and disk) in the Colloquium Committee Office, Rm 7-104. The papers, concerning any aspect of the colloquium topic, should be no more than 750 words. The deadline for submission is Tuesday, Oct. 22.

FACULTY MEETING

A regular meeting of the faculty will be held next Wednesday, Oct. 16, at 3:15pm in Huntington Hall (Rm 10-250). Agenda Items include:

-Motion to revise the Rules

The ultrasound technique could be a revolutionary alternative to such traditional approaches. In addition, the scientists believe that it could be applied to other aquatic animals, including mollusks, shrimp and lobsters. As a industry," Dr. Zohar said. These particular molecules happened to be reproductive hormones.

The scientists then analyzed the levels of hormone in the blood of the fish before ultrasound and at different

MacVicar Memorial

A community memorial service for Professor Margaret L.A. MacVicar will be held Thursday, Oct. 31, at 3pm in Kresge Auditorium. It will be followed by a reception in the Norma Mele Room at McCormick Hall.

Dr. MacVicar, the Institute's first dean for undergraduate education, died at the Dana Farber Cancer Institute in Boston on September 30 at the age of 47. She had been ill with lung cancer for a year.

Dr. MacVicar founded and di-

rected MIT's Undergraduate Research Opportunities Program and was a nationally known educator and scientist. She held dual appointments as a professor of physical science and Cecil and Ida Green Professor of Education.

Contributions may be sent to UROP in Rm 20B-140, the Dana Farber Cancer Institute at 44 Binney Street, Boston, Mass., 02115, or the American Cancer Society's Hope Lodge at 636 West Lexington Street, Baltimore, Md., 21201. By Maryglenn Vincens Alumni/ae Association

PARENTS WEEKEND

M others and fathers, sisters and brothers and even a few grandparents will converge on campus October 18-19 to experience in capsule undergraduate life at MIT.

Hosted by the Alumni/ae Association, the third annual Parents Weekend will enable families of current students to briefly join Institute life in full semester swing: meeting faculty and administrators, learning about recent highlights, sitting in on classes, visiting living groups and departments. But, most importantly, they will be able to connect with other families.

Continuing his inaugural theme, "Shaping the Future," President Charles Vest will host a panel discussion Saturday morning aimed at stimulating thought about the world MIT students will enter after they graduate. Parents have been asked to "do their homework" by reading David Halberstam's *The Next Century*, (this year's Book Night assignment). They will also be encouraged to participate in the question-and-answer session after the program. Members of the panel will be Professor Eleanor D. Westney of the Sloan School of Management, Professor Phillip Sharp, head of biology, Professor Stanley Fischer of economics, and Yonald Chery '89, a doctoral candidate in electrical engineering and computer science.

For evening entertainment parents will have choices among the best of the Institute's musical groups as well as a selection from Shakespeare by the School of Humanities.

Parents Weekend is part of the MIT Parents Program developed to build communication and involvement between the Institute and its students' families, The program also publishes Parents News and manages the Parents Fund. and Regulations of the Faculty to abolish the special end-of-May meeting to vote degrees by Professor Vandiver.

-Report of the Faculty Study Group on the International Relations of MIT by Professor Skolnikoff.

—Discussion of measures for preventing sexual harassment at MIT by Associate Provost Keyser.

—Update on federal relations and other matters: indirect costs, RA/TA tuition remission, antitrust litigation, progress report on ROTC by President Vest.

NO PAPER

MIT Tech Talk will not be published next week because of the Columbus Day holiday Monday, Oct. 14. Publication will resume on October 23. * -Open to public **-Open to MIT community only

***-Open to members only

Student

Notices

ANNOUNCEMENTS

- Formation of new Cuban Club at MIT**-Those interested in establishing a new club with the purpose of enhancing the community's awareness of Cuban culture, sponsoring social/cultural events including folklore, traditional food, dances, etc, please call Esteban Torres x5-9703 or x3-7485. Anyone with an interest in Cuban culture is welcome.
- MIT Facts Cover Photo Contest**-Win \$50. winning entry will be published and distributed to 8000 people worldwide. Deadline Oct 31. For more information call Carla Lane x3-3835.
- **Career Services and Preprofessional Advising** Recruitment Presentations**-Oct 9: Schlumberger, 6:30-8:30pm, Rm 4-149. Mars Inc 7-9pm Rm 4-145, Bankers Trust, 7-9pm Rm 8-105. Oct 10: Cardiac Pacemakers, 7 9pm, Rm 4-153. Oct 15: Motorola Inc., 6-8pm. Rm 4-149. Oct 16: Goldman Sachs, 6-8pm. Rm 4-159. National Semi Conductor, 7-9pm, Rm 4-149. Ethicon, 7-9pm, Rm 4-153. Oct 17: Monitor Company, 7-8:30pm, Rm 4-159. Oct 18: Northern Telecom/BNR, 6-8pm, Rm 8 105. Oct 21: Andersen Consulting, 6-8pm, Rm 4-163. Medtronic, 7-9pm, Rm 4-153. Morgan Stanley, 7-9pm, Rm 4-149. Princeton Trans portation Consulting, 7:30-9pm, Rm 4-145. Oct 22: Merrill Lynch, 5-7pm, Rm 4-145. Intel Corporation, 5-7pm, Rm 4-231. Temple Barker & Sloane and Strategic Planning Association, 6-8pm, Rm 4-149. Hewlett Packard, 6:15-8pm, Rm 34-101. Oct 23: Peace Corps 9am-2pm, Student Center Lobby; 4:30-6:30pm, Rm 4-149. *Lincoln Lab*, 4:30-6:30pm, Rm 4-145. Matsushita Ele. Works Ltd., 4:30-6:30pm, Rm 8-205. J.P. Morgan Corporate Finance & Sales Training, 6:30-8:30pm, Rm 4-163. Lord Corporation, 7-9pm, Rm 4-159. Oct 24: First Boston Corp., 6-8pm, Rm 4-152. American Corp., 6-8pm, Rm 4-152. American Corp., 6-8pm, Rm 4-145. Advanced Micro Devices, 7-9pm, Rm 4-149. Bell Atlantic, 7-9pm, Rm 4-270. Oct 25: Estech Corp., 7-9pm, Rm 4-153. Telecommunication Techniques Corp., 7-8:30pm, Rm 4-149.
- Career Fair**-Oct 9: Thirty participating com panies, all majors/all years (undergrad and grad) invited. Full time and summer jobs available. Free food. Sponsored by Tau Beta Pi, 10am-6pm, Sala de Puerto Rico, Student Center
- Libraries Columbus Day Hours-Oct 14: Barker, Dewey, Humanities, Music, Reserve Book Room, Rotch, and Science follow regu lar schedule. All other libraries will be closed
- A Safe Ride**-Call 253-2997 for a free ride within MIT boundaries. Service operates Sun-Wed 6pm-3am; Thurs-Sat 6pm-4am.
- Contact Line**-A peer information and counseling hotline focusing on issues of sexuality. One male and one female staffer are available

Sunday-Wednesday 8pm-12am to talk with you. We welcome people of all sexual orientations and we are open through Finals Week of Fall 1991 and will reopen for IAP 1992. Our number is x3-6460. All calls are strictly confidential.

- Free Museum of Science Admission for MIT Students-With MIT student ID, provided by Mass Beta chapter of Tau Beta Pi, the National Engineering Honor Society. Reduced admission to special exhibits.
- MIT Student Furniture Exchange**-great bargains, used furniture and more, Tues/Th, 10am-2pm, 25 Windsor St (MIT Museum bldg, 1st fl). Donations welcome. x3-4293.
- Arts Hotline-Recorded information on all art events at MIT may be obtained by dialing x3-ARTS. Material is updated every Monday morning.

RELIGIOUS ACTIVITIES

- The Chapel is open for private meditation 7am-11pm daily
- Morning Bible Studies**-Fri, 7:30-8:30am, L-217. Ed Bayliss, x3456 Linc.
- Noon Bible Study*-Every Wed, Rm 1-132, bring lunch. Ralph Burgess, x3-8121. (Since 1965.) (Graduate Christian Fellowship.)
- MIT Bible Study Group*-The Economy of God, a look at God's eternal purpose to dispense Himself into man based on the revelation of the Bible, Fri, 8pm, Student Ctr Rm 407. Singing, prayer, Bible reading, fellowship.
- Tech Catholic Community: Masses: Sat, 5pm; Sun, 10am & 5pm. Tues & Thurs, 5:05pm, Fri, 12:05pm, MIT Chapel. Info x3-2981.
- MIT Christian Impact*-The weekly meeting for the ministry of Campus Crusade for Christ. Wind up the week: relax, snack, sing, laugh through skits and gain practical insight from God's Word. Meets Friday 7:17pm, Student Ctr. 3rd flr.
- Chinese Christian Fellowship**-Join us for Bible Study, singing, prayer and fun Wednesdays 7-9pm. All English-speaking undergraduate and graduate students are welcome (you don't have to be Chinese!). For location and more information contact Carl Lim, dorm x5-7533.
- Graduate Christian Fellowship**-Come join other grad students, faculty and staff in learning about and growing in the Christian faith, Activities open to both Christians and those interested in learning more about Christianity. Info: John Keen x3-7706, Dave Otis x3-2198.
- MIT Orthodox Christian Fellowship**-Meets every Wednesday evening at 5:30pm in Private Dining Rm #1 in the Student Center for dinner/fellowship/discussion followed by Vespers (evening prayer) in the MIT Chapel. Open to Eastern Orthodox Christians and those interested in learning about the ancient Christian Faith. Information: Arlene Marge 625-3768.
- Church of Jesus Christ of Latter-day Saints Student Association at MIT*-Sunday services, Cambridge University Ward, meets every Sunday 3-6pm at the Cambridge Chapel, corner of Brattle Street and Longfellow Park. Meetings are for students and young single adults.
- MIT Hillel*-Oct 9, 16, 23: Israeli Folk Dancing, 7:30pm, Student Ctr. Oct 10, 17, 24: Chug Ivri (Hebrew Table), Walker Main Dining Rm, 5-7pm. Oct 11: Torah & Chocolate, 12-1pm, Hillel. Conservative Svcs, 5:30pm, Rm

Crimewatch

The following incidents were reported to the MIT Campus Police during September 27 - October 3:

Sept 27: box of personal items stolen from Bldg 13, unknown value; motor

50-010. Shabbat Dinner, 6:45pm, Walker Blue Rm. Oct 12: Orthodox Shabbat Svcs, 9am, Walker 50-010. Oct 13: TECH-iya, Hillel's Singing Group, 4pm, McCormick. Oct 14: Canoe trip w/other area Hillels. Rides leave from Hillel at 11am. Oct 18: Torah & Chocolate, 12-1pm, Hillel. Shabbat Services, 5:30pm, Walker 50-010. Shabbat Dinner, 6:45pm, Ashdown Dining Rm. "Black-Jewish Relations After Crown Heights," 8:30pm, Ashdown Dining Rm. Oct 20: I.M. Football, Hillel vs. E.C., 10:30am. Oct 24: International Study Break, 9pm, Burton 2nd fl lounge. Oct 25: Torah & Chocolate, 12-1pm, Hillel. Conservative services, 5:30pm, Rm 50-101. Shabbat Dinner, 6:45pm, Walker Blue Rm. Grad Student Shabbat Dinner, 7pm, Ashdown West Dining Rm. Oct 26: Orthodox Shabba Services, 9am, Walker 50-101. Oct 27: I.M. Football, Hillel vs. Conner 2, 9am. "Yom Sport!" Hillel Sports Day, 1-5pm, Athletic Center. TECH-iya, Hillel's Singing Group. 4pm, McCormick. Info: x3-2982.

- MIT Korean Bible Study Group*-Come & join our Bible study, fellowship & sing-a-long on every Friday, Rm 1-136, 7pm. Also, worship service on Sunday 1-3pm at Central Square For more info, Chris Pak x3-9342 or 876-8594.
- Lutheran-Episcopal Ministry at MIT**-Wednesday worship, 5:10pm, MIT Chapel, followed by supper and conversation across the street at 312 Memorial Drive. Contact Rev. Susan P. Thomas x3-2325 or Rev. Scott Paradise x3-2983.
- MIT Muslim Students Association*-5 daily prayers in the prayer room, Ashdown House (Bldg W-1) west bsmt. Friday congregation 1:10-1:45pm in Ashdown House (Bldg W-1) west bsmt. Info: x8-9755.
- Lincoln Laboratory Noon Bible Studies*-Tues & Thurs, Kiln Brook III, Rm 239, Annie Lescard, x2899 Linc.
- United Christian Fellowship**-Join us for a time of workship, prayer, and Biblical teachings. For more information call Adam Szabo x3-2401 or 576-3795 or Cathy Trotter x3-4944 or x5-6414.
- MIT Vedanta Society**-Meditation and discourse on the Bhagavad Gita with Swami Sarvagatananda, MIT Religious Counselor. Sponsored by the MIT Vedanta Society and MIT Chaplaincy. Meets Fridays, 5:15pm, MIT Chapel.

OPPORTUNITIES

MIT Public Service Center Fellowships**-The MIT Public Service Center will award several \$1200 IAP '92 or Spring '92 Felored by the Lord Foundation lowships and the MIT Employee's Federal Credit Union. The grants are intended to enable MIT undergraduates in good academic standing using scientific/technical background or not, to pursue intensive and specifically focussed projects undertaken with and sanctioned by local public service organizations. Applications should include a one-apge proposal, a statement of endorsement from the agency with which the work is to be done, and two letters of recommendation. Application forms and additional information are available from Christine Ma, T & Th 9-12, or Virginia Sorenson, Public Service Center, Rm 3-123, x3-0742. Deadline: Nov 4.

National Science Foundation (NSF) Minority Graduate Research Fellowships for 1992. These are three-year graduate fellowships which are awarded for study and research leading to master's or doctoral degrees in the mathematical, physical, biological, engineering, and behavioral and social sciences. including the history and philosophy of science, and to research-based PhDs in science education. Complete information may be obtained from the Dean of the Graduate School Office, Rm 3-138. Deadline for application (Part 1): Nov 8.

National Science Foundation (NSF) Graduate Research Fellowships for 1992. These are three-year graduate fellowships which are awarded for study and research leading to master's or doctoral degrees in the mathematical, physical, biological, engineering, social

Natural Sciences and Engineering Research Council of Canada (NSERC) Scholarships and Fellowships. Various programs of scholarships and fellowships are offered by the NSERC to undergraduate and graduate students and postdoctoral fellows. Eleigibility: Canadian citizens and permanent residents. Information and applications available from the Graduate School Office, Rm 3-134A.

INTERNATIONAL

- MIT Language Conversation Exchange**-This service, sponsored by the MIT Medical Department, assists members of the MIT community to practice a language with a native speaker and get to know someone from another country. Call x3-1614, lv mssg.
- MIT-Japan Program. A unique opportunity for MIT science, technology and management students to spend a year in Japan working at a major Japanese company or laboratory. Training, placement, travel and living ex-penses are covered by the Program. Call Patricia Gercik x3-3142, Rm E38-754.

VOLUNTEERS

The MIT Public Service Center has compiled the following volunteer opportunies.

- Algebra Tutor. Cambridgeport eighth grade student urgently needs an algebra tutor for 2 hours a week. To arrange a suitable time and convenient location, please contact Miss Pari at (617) 491 5639.
- Trainer for MacIntosh Computers. The Boston Drug Treatment Improvement Project needs a willing Mac user to help their halfway house staff improve their Mac skills. The volunteer should be comfortable communicating basic information in a very informal atmosphere Ideal time would be Wednesdays 2-4pm, but other times may be negotiated. This service will help increase treatment access for women, minorities, and adolescents. For more info contact Stephen Fairfield at 253-7914.
- UCP Phonothon. United Cerebral Palsy Association of MetroBoston, located in Watertown, urgently needs volunteers for its Phonothe campaign extending from Oct 20 to Nov 24. This phonothon is the Association's primary ource of financial assistance. Please help the UCP maintain the services it provides to disabled individuals in the Greater Boston area. If you can devote 3-4 hours in the evening or on a weekend, call Ellen Punch at (617) 926-5480.

UROP

The UROP office welcomes new and returning students to participate in UROPs this fall. We invite MIT and Wellesley students to join with faculty members to pursue research projects of mutual appeal. For detailed information on procedurés, please read the participation section of the new UROP 1991-92 Directory, available at UASO, 7-104, and the UROP office, 20B-140; also pick up a Fall 1991 Guidelines information sheet for pertinent information.

Please watch for other types of information which we post on the UROP bulletin boards in the infinite corridor near the Admissions office, and in the UROP office.

The Fall UROP period has started as of Septem ber 9, Registration Day, and ends December 31 Fall/IAP UROPs end January 30, 1992. The UROP minimum wage rate has been increased to \$6.90 an hour and will be in effect starting September 9

- Sloan School UROPs. Research focuses on the working relationship between developers and users during the transfer of new process technologies from lab to plant, examining how information is exchanged, and seeks to identify patterns of information exchange. Researchers needed to assist in several aspects including on-site data collection and administration in Rochester, NY, as well as followup activities at MIT. Students should have some background in precision injection molding, CAD>CAE tools, optics production, paper making; interest in psychology, appre-ciation of behavioral research methods is desirable. Faculty supervisor: Prof. Marcie Tyre, E52-564, x3-6679, or Prof. Shmuel Ellis, E52-588, x3-5205; copies of working papers on related research can be obtained from Susan McLean, E52-580.
- **Research in Cardiovascular Physiology and Biomedical Engineering.** Two UROPers ought to work with research staffs conducting research in cardiovascular physiology and biomedical engineering. A self-motivated student is sought to assist trouble-shooting and testing of a multi-purpose 256-channel bioelectric amplifier system. A skilled C programmer is sought to assist in the development of a cardiac electrical imaging software in the X-window environment. Faculty supervisor: Prof. Richard J. Cohen, E25-330; contact: Dr. Bin He, x8-7088, bhe@athena.

For more information call Randy Winchester at x3-7431, Room 9-050, e-mail: randy@mit.edu; tv-messages@mit.edu, x3-9383, E19-722E.

- Oct 9: Channel 8: 11am-12noon-Live coverage of the EECS/RLE Optics and Quantum Electronics Seminar: "Photonic Implementations of Neural Networks," A. Tanguay, University of Southern California. 4-5:30pm-Live coverage of the MIT Colloquium: "Teaching Within a Research University" with Dr. Charles Vest, Michael Dukakis, Dr. Mark Wrighton. 8-11pm—AIDS Awareness Week programming: "AIDS: A Decision for Life," "Changing the Rules," and "Pros and Condo
- Oct 10: Channel 8: 8:30am-6pm-Live coverage of the ILP Symposium: Building the Information Marketplace.
- Oct 11: Channel 8: 8:30am-6pm-Live coverage of the ILP Symposium: Building the Information Marketplace.
- Oct 16: Channel 8: 11am-12noon-Live coverage of the EECS/RLE Optics and Quantum Electronics Seminar: "Monolithic Colliding Pulse Modelocked Quantum Well Laser," M.C. Wu and Y.K. Chen, AT&T Bell Laboratories.
- Oct 21: Channel 8: 4-5pm—Live coverage of the MIT EECS Colloquium: "Understanding Media: Spatial Editing Or How to Lie with Computers," Alvy Ray Smith, Pixar.
- Oct 22: Channel 8: 4-5:30pm-Live coverage of the MIT VLSI Seminar: Trevor Mudge, University of Michigan.

Oct 23: Channel 8: 11am-12noon-Live coverage of the EECS/RLE Optics and Quantum Electronics Seminar: "Quantum Wires for Opto-electronics," E. Kapon, Bellcore.

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Editor JOANNE MILLER **Assistant Editor ELIZABETH THOMSON** Photojournalist DONNA COVENEY

venicle stolen, westgate lot, value \$7,000.

Sept 28: answering machine, Bldg 13, value \$100; wallet left unlocked and unattended, Bldg W71, value \$15.

Sept 29: bike seat, Bldg W85, value \$70; unlocked & unattended duffel bag, Bldg W31, value \$50.

Sept 30: computer, Bldg 11, value \$1,984; bicycle, Bldg 20, value \$150.

- Oct 1: breaking and entering a locker, W32, value \$40; unlocked and unattended wallet, Bldg W32, value \$80; wallet left unattended, Bldg 66, value \$20.
- Oct 3: larceny of cash, Bldg E19, value \$100; accidental laceration, Bldg W20; personal items left unlocked & unattended, Bldg 6, value \$30; male arrested for larceny of bicycle, short pursuit by MIT bicycle officers, stolen bicycle returned to rightful owner.

The Annual Crime Prevention Exhibition will be held on Friday, Oct. 18, from 9am to 3pm in Lobby 7. Theft prevention information about autos, bikes, computers and home.

The Boston Police Department will be holding an auction of recovered bicycles on Saturday, Oct. 19 at 1010 Mass. Ave., BOSTON, beginning at 10am.

the history and philosophy of science, and to research-based PhDs in science education. Complete information may be obtained from the Dean of the Graduate School Office, Rm 3-138. Deadline for application (Part 1): Nov 8.

Howard Hughes Medical Institute Predoctoral Fellowships in Biological Sciences for 1992. For students who are engaged in full-time study toward a PhD or ScD degree in biological sciences. Eligible fields of study include: biochemistry, biophysics, biostatistics, cell biology, developmental biology, genetics, immunology, mathematical biology, microbiology, molecular biology, neuroscience, pharmacology, physiology, structural biology, and virology. This fellowship program is in-tended for students who have completed less than one year of graduate study toward the MS, PhD, or ScD degrees in biological sciences. Students who hold or are pursuing medical or dental degrees may also be eligible to apply for fellowship support for study toward the PhD or ScD. Complete information may be obtained from the Dean of the Graduate School Office, Rm 3-138. Deadline for applications: Nov 8.

Josephine de Karman Fellowships for 1992-93. Approximately 10 fellowships of \$6000 each

Faculty supervisors wishing to have projects listed may send brief project descriptions to the UROP office, or call x3-7306, or e-mail to urop@athena. Listings are posted here, on the UROP bulletin boards in the infinite corridor and in the UROP office.

Solid Mixing in Fluidized Beds. UROPer needed for research in solid mixing in Circulating Fluidized Beds (CFB's). A thermal tracer technique for solid mixing tests will be developed which will complement a technique based on magnetic permeability. Tests to be performed in a room-temperature CFB in the heat transfer lab (Mechanical Engineering). Student should have lab and/or shop experience; fluid mechanics and heat transfer also helpful. Faculty supervisor: Prof. Leon Glicksman, 3-433, x3-2233; contact: Detlef Westphalen, x3-7080.

UROP in Cognitive Development. Projects on cognitive development in young children. Responsibilities include testing preschoolers for language acquisition and/or infants for conceptual development; written preparation of research methods; data analysis; participation in weekly discussions of background to, and theoretical implications of, present research. Faculty supervisor: Prof. Susan Carey, E10-004, x3-5768.

Production GENEVIEVE PARENT OF MIT GRAPHIC ARTS

News Office

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OCTOBER 9, 1991

PREMIER TEACHER

Williams Is Appointed To Engineering Chair

rofessor James H. Williams Jr., frequently recognized in student course evaluation guides as one of MIT's premier teachers, has been appointed to the School of Engineering's Professorship in Teaching Excellence.



The professorship was established by an anonymous gift to recognize teaching excellence and to support educational program development. The appointment of Professor Wil-

Williams

liams for a fiveyear term was announced by Dean of Engineering Joel Moses, the Dugald Caleb Jackson Professor of Computer Science and Engineering.

Professor Williams' contributions to undergraduate teaching have been formally recognized through a number of awards, including the Everett Moore Baker Award for "outstanding undergraduate teaching" (1973) and the inaugural J.P. Den Hartog Distinguished Educator Award in the Department of Mechanical Engineering (1981).

Assessments by both students and colleagues have cited the intellectual rigor of his teaching, his lucid presentations, high expectations and excellent results. Also cited were his commitment to the professional and personal development of students and

SHARING INSIGHTS

his counseling and tutoring outside of the classroom.

He served as the first faculty resident at New House from 1975-82.

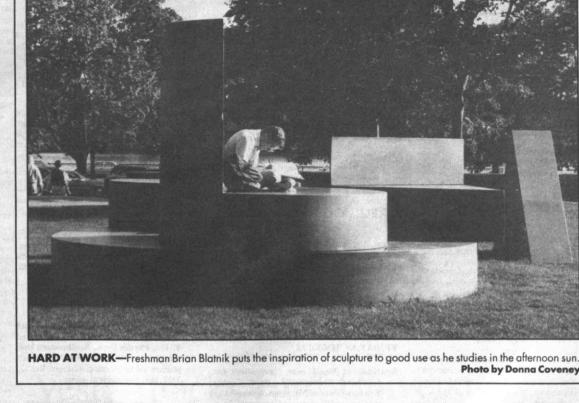
Professor Williams is also known for his commitment to minority student development and to increasing the presence of minority faculty at MIT.

To focus awareness on the educational needs of minority students at MIT, Professor Williams attracted the attention of the national media as he sat and fasted at a small table outside the offices of the president and the provost each Wednesday in April.

Professor Williams, who joined the faculty in 1970, is currently the head of the Mechanics and Materials Division within the Department of Mechanical Engineering. He earned the SB (1967) and SM (1968) from MIT and the PhD (1970) from Trinity College, Cambridge University, England.

His research in the Composite Materials and Nondestructive Evaluation Laboratory, which he founded, has led to the analytical and experimental characterization of the stresses and fracture properties of fiber-reinforced composites. His development of nondestructive methods to evaluate such materials, involving ultrasonics, acoustic emission and thermography, have earned him an international reputation.

He is a member or fellow of several international professional societies



ENERGY CHAIR

Ceyer Named First Keck Professor

D r. Sylvia T. Ceyer of the Depart-ment of Chemistry, whose internationally recognized research in surface chemistry has important applications in the conversion of natural gas to useable fuels, has been named the first holder of the W.M. Keck Foundation Professorship in the field of energy.

The professorship was established in June with a grant of \$1.5 million from the W.M. Keck Foundation of Los Angeles. The foundation selected MIT as the first recipient of

Ceyer

an energy professorship. Seven other universities also submitted in-

vited applications. MIT Provost Mark S. Wrighton, the

CIBA-GEIGY Professor of Chemistry, announced Professor Ceyer's appointment for a five-year term. He cited her "extraordinary accomplishments" and her potential "to make fundamental and transforming contributions to the Institute, experimental physical chemistry, and the broad field of energy."

Professor Ceyer received her BA summa cum laude in chemistry from Hope College (1974) and her PhD from the University of California at Berkeley (1979). She joined MIT in 1981. Her research into the dynamics of molecule-surface interactions has resulted in the observation of new mechanisms for dissociative chemisorption, desorption and absorption, and surface reactions. Her work has also extended the understanding of molecular precursors, identified and clarified the site conversion process and provided a novel method for adsorbate synthesis.

Professor Ceyer received the Baker Award for Undergraduate Teaching in 1988, MIT's Edgerton Prize for junior faculty in 1987 and the AAUW Young Scholar Award in 1988. She has also been the holder of the Class of 1943 Career Development Chair, a Sloan Foundation Fellowship and a Camille and Henry Dreyfus Teacher-Scholarship. She is an editorial board member for the Journal of Chemical Physics, Langmuir and the Journal of Physical Chemistry and an executive committee member for the Gordon Research Conference Council, the Division of Physical Chemistry of the American Chemical Society and the National Research Council on Atomic, Molecular and Optical Sciences.

The W.M. Keck Foundation, one of the nation's largest in terms of annual actablished in 1051 by th late William M. Keck, founder of Superior Oil Company. He also created the W.M. Keck Trust for the benefit of the foundation. The foundation's primary focus is on grants to US universities and colleges with an emphasis in science, engineering and medical research. It also provides limited support, focused on programs serving Southern California, in the areas of community services, health care, precollegiate education and the arts.

Teaching Resources Available for Faculty

seminar and discussion series about teaching and a service which provides classroom videotaping are available this year for faculty interested in sharing insights about teaching issues and honing their own teaching skills.

Both activities are provided with the help of the Faculty Instructional Resources Program (FIRP) and the Office of the Dean for Undergraduate Education.

"Teaching at MIT," a series of four fall-term seminars, will begin next week with a half-dozen more seminars scheduled to take place during IAP. All Institute faculty, instructors, teaching assistants, and community members are invited to attend and participate.

All teaching seminars begin at 4pm and run for about an hour. The series

Tuesday, Oct. 29, Rm 8-302, Teaching Recitation Sections," Professor Arthur Mattuck of mathematics and Professor Campbell Searle of electrical engineering and computer science.

Thursday, Nov. 7, Rm 37-696, "How To Lecture," Professor Hal Abelson of electrical engineering and computer science and Professor Daniel Kemp of chemistry.

FIRP was started in spring of 1987 as an outgrowth of the Commission on Engineering Undergraduate Education. Its goal was to enhance the quality of teaching in the School of Engineering. FIRP assists in the orientation of new faculty, aids the process of pedagogical self-evaluation, and seeks to promote lively debate about pedagogical issues among the faculty as a whole. Interest and participation have been growing steadily according to Maureen Horgan of the Office of the Dean for Undergraduate Education.

FLAMES, ENGINES & THE BRAIN

Three Visitors to Give Talks Here

DIFFUSION FLAMES

Dr. Forman A. Williams, director of the Center for Energy and Combustion Research at the University of California, San Diego, will deliver the 1991 Hoyt C. Hottel Lecture in Chemical Engineering October 18.

Dr. Williams, widely known for his writing and research on the theory and mathematical aspects of combustion, will speak at 3:30pm Friday, Oct. 18, in Rm 66-110, the Edwin R. Gilliland Auditorium. His subject will be "Theory of Turbulent-Jet Diffusion Flames." A reception will follow at the Cambridge Marriott. The Hottel Lectureship, established in 1985, recognizes Hoyt C. Hottel's contributions "to the intellectual climate of the Chemical Engineering Department, to the encouragement of students over six decades, and to the foundation and direction of the Fuels Research Laboratory. Professor Hottel, 88, began his career at MIT in 1924 as assistant director of the Chemical Engineering Practice School. He is currently professor of chemical engineering emeritus.

ral Darwinism: Is it Possible to Construct a Perception Machine?" Thursday, Oct. 10, at 4pm in Rm 26-100.

Dr. Edelman, who received the Nobel Prize for Physiology or Medicine in 1972, is the third lecturer in a series on Computational Approaches to the Neurosciences. He will discuss an overall theory he has proposed to explain the

AIRCRAFT ENGINES

Dr. Nicholas A. Cumpsty, the 1991 Hunsaker Professor of Aeronautical Engineering, will present the Minta Martin Lecture, "Aerodynamic Problems of Aircraft Engines: Strides and Some Stumbles," Tuesday, Oct. 15, at 4pm in Rm 6-120.

Dr. Cumpsty is a faculty member in



schedule is as follows:

Thursday, Oct. 17, Rm 37-696, "Planning and Teaching an MIT Subject," Professor Donald Sadoway of materials science and engineering and Professor Leonard Morse-Fortier of architecture.

Wednesday, Oct. 23, Rm 36-428, "Working with Students: Handling Problems, Counseling and Advising," Dean Robert Randolph of the Office of the Dean for Student Affairs.

It's a Fact

The Lincoln Memorial in Washington, D.C., The Minute Man in Concord, Mass., and John Harvard's statue in Harvard Yard. Cambridge, were all sculpted by an MIT alumnus, Daniel Chester French, a member of the class of 1871.

Classroom videotaping is available through the Video Production Services in the Center for Advanced Engineering Study.

Classes are videotaped in the regular classroom, and the tape is turned over to the faculty member at the end of the class session. The premise of the program is that viewing oneself in action is excellent feedback in itself.

There is a charge for this service but support from the deans of the School of Engineering and the School of Science permits faculty from those schools to be taped at no cost.

Further information about both programs is available from Ms. Horgan, Office of the Dean for Undergraduate Education, Rm 20B-141, x3-5049.

BRAIN FUNCTIONS

Dr. Gerald M. Edelman, director of The Neurosciences Institute in New York City, will give a talk titled "Neu-

development and organization of higher brain functions in terms of a process known as neural group selection.

The talk is sponsored by the Center for Biological Information Processing of Whitaker College.

the Department of Engineering at Cambridge University in England, where he received his PhD in 1967. The Minta Martin Lecture by the Hunsaker Professor is given in several aeronautical centers throughout the nation.

Advisory Committee Named

P rofessor Bernard J. Frieden of the Department of Urban Studies and Planning has been named to chair an advisory committee to the provost for the selection of the next dean of the School of Architecture and Planning.

Other members of the committee appointed by Provost Mark S. Wrighton are: Ann Beha, Beha & Associates, Boston; Professor Stephen A. Benton, head, Media Arts and Sciences Section; Michael Dennis, Dennis & Clark, Boston; Catherine Donaher, Brookline; Michael Mc Kinnell, Kallmann, Mc Kinnell & Wood Architects, Inc., Boston; Professor William L. Porter, Department of Architecture; Jean A. Riesman, PhD candidate, Department of Urban Studies and Planning; Aysen Savas, PhD candidate, Department of Architecture; Assistant Professor Lyna L. Wiggins, Department of Urban Studies and Planning; and Professor David N. Wormley, associate dean, School of Engineering.

The new dean will succeed Professor John de Monchaux, who has served in that post since May 1981. Dean de Monchaux announced last spring that he would conclude his term in January 1992.



* -Open to public **-Open to MIT community only ***-Open to members only

October 9 - 27

SPECIAL INTEREST

- Teaching Within a Research University**-Oct9: An MIT-wide colloquium featuring 10 faculty and student panelists and former Massachusetts Governor Michael Dukakis. Plenary session, 4-5:30pm, Kresge Auditorium, followed by smaller dinner discussion meetings, 6-8pm.
- Lectures in Low Temperature Plasma Physics**—A series of lectures by Dr. Edouard E. Son, Professor & Head, Physical Mechanics Department, Moscow Institute of Physics & Technology, and Visiting Soviet Fulbright Scholar. Oct 7, 10, 17, 21, 24, 28, Nov 14, 18, 21, 25, Dec 2, 5, 9, 12. See listings under dates.
- Newcomer's Reception**—Oct 24: Sponsored by President and Mrs. Charles M. Vest and the MIT Women's League, 4:30-6pm, President's House, 111 Memorial Drive. All members of the MIT community welcome (new as well as old).

SEMINARS & LECTURES

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and field.

WEDNESDAY, OCTOBER 9

- Photonic Implementations of Neural Networks**—A. Tanguay, Univ. of So. California. EECS/RLE Seminar Series on Optics and Quantum Electronics. 11am-12pm, Rm
- The Ground Campaigns of the Gulf War*— Brig. Harold Nelson, Chief of Military History, US Army. MIT Seminar on Technology, Defense, and Arms Control in a Changing World, CIS, 12-2pm, Rm E38-714. Bring lunch, drinks provided.
- Flow Reversal in Rod Bundle Channel under Mixed Convection Conditions**-Dong W. Jerng, MIT. Reactor Physics and Engineering Seminar, 2-3pm, Rm 24-121.
- A New Fuel Design for the MITR-II**-Santiago Parra. Reactor Physics and Engineering Seminar, 2-3pm, Rm 24-121.
- Low-X Physics at HERA**-Dr. M.W. Krasny, CEN Saclay. Special Nuclear and Particle Physics Seminar, 3pm, Rm 26-414.
- Discovering the Writer Within**—Sally Ryder Brady, published novelist, fiction, and non fiction writer. A journal writing workshop. Bring bound notebook. Enrollment limited to 35 people, call x3-1480 to register. 4-6pm, Rm 18-490. Sponsored by Employee Advisory Resources of the Working Group on Support Staff Issues.
- MIT Enterprise Forum*—Case Presentation: AT/Comm Incorporated, 6pm, Rm 10-250, registration 5:30, \$5 fee, \$2/students. Spotlight Series: "SBIRs..An Untapped Funding Source for Technology Based Companies" with Event Coordinator Robert J. Crowley, Exec. Vice

- Penn State; Shoggy Thierry Waryn, MIT; No Susan Emanuel, Univ. of Rennes, France. Moderator: Prof. Henry Jenkins, MIT. Sponsored by the MIT Communications Forum, 4-6pm, Rm E15-070 (Bartos Theatre).
- Design Research Activities at Engineering Design Centre (EDC)*—Dr. Philip Sargent, Research Fellow, Cambridge Univ, UK. Sponsored by the Intelligent Engineering Systems Laboratory, 4-5pm, Rm 1-350.
- Random Walks; Unimodular Matrices and a Dual Simples Algorithm*—Alan Frieze, Carnegie-Mellon. Sponsored by the Operations Research Center, 4pm, E40-298. Refreshments follow.
- Numerical Simulations of the Rise, Dispersion and Ground Deposition of Smoke Plumes**—Xiaoming Zhang, MIT. Sloan Automotive/Reacting Gas Dynamics Laboratories, 4:15-5:15pm, Rm 31-161.
- Surface Phase Behavior: The Real Glitter of Gold and Platinum**—Prof. Simon Mochrie, MIT. Physics Colloquium, 4:15pm, Rm 10-250. Refreshments, 3:45pm, Rm 26-110.
- Marine-Borne Waste Management Systems*---Udi Saly, President & CEO, Flexible Environmental Systems, Inc. Sponsored by the MIT International Shipping Club, 4:30pm, Rm E51-311. Refreshements.

FRIDAY, OCTOBER 11

- Synthesis of Non-Linear Controllers for Chemical Processes**—Prof. Costas Kravaris, Univ. of Michigan. Sponsored by the Chemical Engineering Department, 3pm, Rm 66-110.
- Time Delay Control: Theory and Applications**--Prof. Kamal Youcef-Tourni, MIT. Mechanical Engineering Seminar, 3pm, Rm 3-270. Refreshments, 4pm, Rm 1-114.
- Late Cenozoic Climate: Responding to Tibetan Uplift?**-Dr. Maureen Raymo, Univ. of California/Berkeley. EAPS Lecture Series, 4-5pm, Rm 54-915.

TUESDAY, OCTOBER 15

- Aerodynamic Problems of Aircraft Engines: Strides and Some Stumbles*—Dr. Nicholas Alexander Compsty, Visiting Hunsaker Professor. The Twentieth Minta Martin Lecture, sponsored by the Aero/Astro Department, 4pm, Rm 6-120.
- Disks, Waves and Dynamos*—Dr. Ethan Vishniac, Univ. of Texas. Astrophysics Colloquium, 4:15pm, Rm 37-252. Refreshmente, 3:45pm.

WEDNESDAY, OCTOBER 16

- Monolithic Colliding Pulse Modelocked Quantum Well Laser**—M. Wu and Y.K. Chen, AT&T Bell Laboratories. EECS/RLE Seminar Series on Optics and Quantum Electronics, 11am-12pm, Rm 34-401B (Grier Rm).
- Nuclear Proliferation in the Third World*— George Ullrich, Defense Nuclear Agency. MIT Seminar on Technology, Defense, and Arms Control in a Changing World, CIS, 12-2pm, Rm E38-714. Bring lunch, drinks provided.
- Convective Transport in Granular Materials**--Prof. M. L. Hunt, Caltech. Thermal Science Seminar, sponsored by the Dept of Mechanical Engineering, 4pm, Rm 5-234. Refreshments, 3:45pm.
- Inverting Geodetic Data for Fault Slip**-Prof. Mark Matthews, MIT. EAPS Lecture Series, 4-5pm, Rm 54-915.
- Ethnicity and State and the Moral Order**-Prof. Ronald Cohen, Univ. of Florida, Gainesville. Sponsored by Peoples and States: Ethnic Identity and Struggle, CIS, 4:30-6:15pm, Rm E38-714.

THURSDAY, OCTOBER 17

Plasma Optical Properties**—Dr. Edouard E. Son, Professor & Head, Physical Mechanics Department, Moscow Institute of Physics

- Neural Net Models & Optimization Algorithms for Testing Large Digital VLSI Circuits*— Prof. Michael L. Bushnell, Rutgers Univ. Sponsored by the Intelligent Engineering Lab at MIT, 4-5pm, Rm 1-350.
 - Planning and Teaching at MIT Subject**— Prof. Donald Sadoway and Prof. Leonard Morse-Fortier, MIT. Sponsored by the Faculty Instructional Resources Program (FIRP), School of Engineering and Office of the Dean for Undergraduate Education, 4pm, Rm 37-696.
 - Supersonic Combustion Testing Using Optical Diagnostics in a High Enthalpy Shock Tunnel**—Dr. Terry parker, Physical Sciences, Inc. Sloan Automotive/Reacting Gas Dynamics Laboratories, 4:15-5:15pm, Rm 31-161.
- Bigger Telescopes and Adaptive Optics**— Prof. Roger Angel, Univ. of Arizona. Physics Colloquium, 4:15pm, Rm 10-250. Refreshments, 3:45pm, Compton Room, 26-110.
- Male and Female Visions of Welfare*—Prof. Linda Gordon, Univ. of Wisconsin, Madison. Sponsored by Women and Politics, CIS, 5:30pm, Rm E38-714.

FRIDAY, OCTOBER 18

- Ising Model, Blume-Emery-Griffith Model, and the Gauge Transformation*—Prof. Fred Y. Wu, Physics Dept., Northeastern University. Sponsored by the Center for Materials Science and Engineering, 12:15pm, Rm 13-2137. Lunch available at noon.
- Theory of Turbulent-Jet Diffusion Flames**— Prof. Forman Williams, Univ. of Calif./San Diego. Hoyt Hottel Lectureship. Sponsored by the Chemical Engineering Department, 3pm, Rm 66-110.
- Low-Cost Direct Audio Diver Communicator**-Dick Ranlet, Dept of Ocean Engineering, URI. Underwater Acoustics Research Seminar Series, 3:30-5pm, Rm 5-314. Refreshments will be served.

MONDAY, OCTOBER 21

- Plasma Kinetic Equations**-Dr. Edouard E. Son, Professor & Head, Physical Mechanics Department, Moscow Institute of Physics & Technology. Nonequilibrium Low Temperature Plasma Lectures (this series continues on Oct 24, 28, Nov 14), 11am, NW16-121.
- Negotiating to Acquire Distressed Properties**—Arthur Halleran, Chairman, First Winthrop Corporation. Rose Lunchbox Series sponsored by the MIT Center for Real Estate, 12pm. Rm W21-301.
- Electromigration in Polycrystalline Metals**— Prof. Carl Thompson, MIT. Fluid Mechanics Seminar Series, 4-5pm, Rm 5-234.
- Understanding Media: Spatial Editing or How to Lie with Computers*—Alvy Ray Smith, Pixar. EECS Colloquium Series, 4-5pm, Rm 34-101. Refreshments, 3:30pm.
- Visions of Science and Development: The Rockefeller Foundation in Latin American Medicine in the 1920s**—Marcos Cueto, Mellon Fellow, MIT. Sponsored by the Program in Science, Technology and Society, 4-6pm, Rm E51-004.
- Release of Toxic Organic Chemicals from Sediment Beds**—Prof. Philip Gschwend, MIT. R.M. Parsons Laboratory Monday Seminar Series, 4-5pm, Rm 48-316.
- Acquisition, Pointing and Tracking for Space Laser-Based Communications**—Eric Swanson, Lincoln Labs, MIT/Draper Joint Seminar Series in Dynamics, Guidance and Control, 4:10pm, Draper 1409B. Cookies at 4pm.
- Games**—Prof. Elwyn Berlekamp, Berkeley. Applied Mathematics Colloquium, 4:15pm, Rm 2-105, Refreshments, 3:45pm, Rm 2-349.

TUESDAY, OCTOBER 22

Molecular Holography: A New Probe for

WEDNESDAY, OCTOBER 23

- Quantum Wires for Opto-electronics**—E. Kapon, Bellcore. EECS/RLE Seminar Series on Optics and Quantum Electronics, 11am-12pm, Rm 34-401B (Grier Rm).
- Modernizing and Maintaining the DOD Software Base⁴—Barry Horowitz, CEO, MI-TRE Corp. MIT Seminar on Technology, Defense, and Arms Control in a Changing World, 12-2pm, Rm E38-714. Bring a lunch, drinks provided.
- Option Evaluation for Environmental Investments in Electric Utility Industry**-Olivier Herbelot. Reactor Physics and Engineering Seminar, 2-3pm, Rm 24-121.
- Working with Students: Handling Problems, Counseling, Advising**-Dean Robert Randolph, Office of the Dean for Student Affairs. Sponsored by the Faculty Instructional Resources Program (FIRP), School of Engineering and Office of the Dean for Undergraduate Education, 4pm, Rm 36-428.
- Mayan Anthropology: Resistance and Cultural Critique*—Prof. Kay Warren, Princeton. Sponsored by Peoples and States: Ethnic Identity and Struggle, CIS, 4:30-6:15pm, Rm E38-714.

THURSDAY, OCTOBER 24

- Plasma in a Strong Electric Field**—Dr. Edouard E. Son, Professor & Head, Physical Mechanics Department, Moscow Institute of Physics & Technology. Nonequilibrium Low Temperature Plasma Lectures (this series continues on Oct 28 & Nov 14), 11am, NW16-121.
- Laser Fluorescence Lubricant Film Thickness Measurement in I.C. Engines**—Byron Shaw, MIT. Sloan Automotive/Reacting Gas Dynamics Laboratories, 4:15-5:15pm, Rm 31-161.

FRIDAY, OCTOBER 25

- Where Public Policy and Transportation Technology Meet**—Richard Taylor, Mass. Executive Office of Transportation and Construction. Center for Transportation Studies Luncheon Seminar Scries, 12:45-2pm, Rm 10-105. Luncheon optional, 12-12:45pm, \$2 students, \$5 non-students.
- Spin Coating of Collodial Suspensions: Transport Processes and Film Microstructure**—Prof. Brian Higgins, Univ. of Calf./ Davis. Sponsored by the Chemical Engineering Department, 3pm, Rm 66-110.
- Three-Dimensional Printing: Rapid Prototypes and Tooling Directly from a CAD Model**—Prof. Emanuel Sachs, MIT. Mechanical Engineering Seminar, 3pm, Rm 3-270. Refreshments, 4pm, Rm 1-114.
- Ocean Modeling and Climate**-Dr. Jochem Marotzke, MIT. EAPS Lecture Series, 4-5pm, Rm 54-915.

SATURDAY, OCTOBER 26

- Louis Kahn and Dhaka: A Symposium*—The capital complex at Dhaka, winner of the 1989 Aga Khan Award, serves to focus a discussion of both Louis Kahn's work and a wide variety of architectural issues. Continues Oct 27. Sponsored by the Aga Khan Program for Islamic Architecture. Registration deadline: Oct 15. Registration fee: \$70, students \$30 (includes lunches); current MIT and Aga Khan Program students, staff and faculty: free (registration necessary). Contact Alexandra Kuropas, x3-1400.
- On Our Own: Building the Minority Enterprise of the Next Millennium*—An entrepreneurial workshop for black professionals, Bldg 34. Cosponsored by BAMIT and Enterprise Forum. For more information call Nancie Barber x3-8217 or Susan Downey x3-8053.

SUNDAY, OCTOBER 27

Louis Kahn and Dhaka: A Symposium*-See

- Alcoholics Anonymous (AA)**—Meetings every Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info call Alice, x3-4911.
- Al-Anon**—Meetings every Fri, noon-1pm, Health Education Conference Rm E23-297; every Tues, noon-1pm, Rm 1-246; and every Mon, 12-1pm, Lincoln Lab Bldg 1218, Family Support Ctr. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Alice, x3-4911.
- Alcohol Support Group**—Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Alice, x3-4911.
- Cancer Support Group**—Meetings every Thursday, 12-2pm, Bldg E51. For those with acute and chronic forms of cancer. Sponsored by the MIT Medical Dept. For information about weekly luncheon meeting, call Dawn Metcalf, Social Work Service, x3-4911.
- Co-Dependents Anonymous (CoDA)*—Meetings every Thurs, 6:30-8pm, Rm 66-156. Info: Alice, x3-4911.
- Eldercare Support Group**---Meetings every Monday 12-1pm, Rm 8-219. For info call Carole x3-9368 or Maria x3-8820.
- Especially for Child Care Providers**—A series of informational seminars for child care providers in the MIT community. Call x3-1592.
- Infant-Toddler Child Care Briefings**—Oct 17, 31, Nov 14, Dec 19: Introductory discussions for expectant parents, those considering their first child, and those new to MIT or to parenthood. Call x3-1592.
- Informal Embroidery Group**—MIT Women's League, 10:30am-1:30pm. Upcoming dates are: Oct 16, Nov 6, 20, Dec 4, 18. Meets in Rm 10-340, the Emma Rogers Room. Info: x3-3656.
- Narcotics Anonymous*—Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.
- Overeaters Anonymous (OA)*—Meets Thurs, 1-2pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alice, x3-4911.
- Parenting Workshops*—Oct 10: The Warning Signs of Child Abuse, 12-1pm, Rm E19-220. Oct 21: School Choice Forum, 7:15-9pm, Student Center Mezzanine Lounge. Oct 28: Harvard-Radclifte Child Care Council School Information Fair, 7:15-9pm, Soldier's Field Park Common Rm, Harvard Business School. All workshops sponsored by the MIT Child Care Office and the MIT Medical Department.
- Parenting After Divorce Support Group**-Oct 18-Dec 13: Meets every other Friday, 12-1pm. Open to new members and to those who attended last semester. Pre-registration required; call x3-1592.
- Parenting Issues*—Oct 11-Dec 6: "Changing Parenting Patterns: Looking Backward, Moving Forward." Eight-week series, Fridays, 12-1:30pm, Rm 4-145. Photocopying fee of \$10 and preregistration required. Oct 22-Dec 10: "Parenting: The First Year." Eight-week series for men and women, babies welcome. Photocopying fee of \$10 and preregistration required. Tuesdays, 12-1:30pm, Rm 1-136. Co-sponsored by the MIT Medical Dept. and the MIT Child Care Office. Call x3-1316.
- Parents Anonymous*—Wednesdays, 12-1pm, sponsored by Parents Anonymous and MIT Child Care Office. Call 1-800-882-1250 for more information.
- Wives' Group**—Oct 9: "The Way We Are Living Now—Student Wives Discuss Their Experiences in a New College Community," Milena Levak, MIT Intl Students Advisor. Oct 16: "Bangladesh," Feroza Haq, Wives' Group Member. Meetings are from 3-4:45pm, Rm 491 Student Ctr. Babysitting in Rm 407. All women in MIT community welcome. Info: x3-1614.

HEALTH EDUCATION

President, Mass. Technology Dev. Corp., and panelists, 7:45pm.

THURSDAY, OCTOBER 10

- Transport in Gases and Plasmas**-Dr. Edouard E. Son, Professor & Head, Physical Mechanics Department, Moscow Institute of Physics & Technology. Equilibrium Low Temperature Plasma Lectures (see Oct 17 also), 11 am, NW16-121.
- A Navier-Stokes Simulation of the Flow Over Sail-Hull Combination**-C.I. Yang, Naval Architect, David Taylor Research Center. Hydrofoil and Propeller Seminar sponsored by the Department of Ocean Engineering, 12-1pm, Rm 5-314. Bring lunch, coffee provided.
- Trade Policy Issues in the Aircraft Industry*— Mr. Steve Falken, Director for Transportation and Defense Trade Policy, The Office of the US Trade Representative. Sponsored by the Flight Transportation Lab, 2-3:30pm, Rm 33-319. Presented as part of the seminar series on air transportation analysis and planning.

French Television: Regional, National, International*-Speakers: William Uricchio, & Technology. Equilibrium Low Temperature Plasma Lectures, 11am, NW16-121.

Aircraft Leasing: Legal and Economic Considerations*—John T. Stewart, Jr., partner, Zuckert, Scoutt and Rasenberger. Sponsored by the MIT Flight Transportation Lab as part of the seminar series on air transportation analysis and planning, 2-3:30pm, Rm 33-319.

Geoelectrical Measurements from the Experimental Sites for Earthquake Prediction in China**—Prof. Yulin Zhao, Insitute of Geophysics, State Seismological Bureau, Beijing, China. EAPS Lecture Series, 2:30-3:30pm, Rm 54-915.

Materials and Structures Technology for National Aerospace Plane**—Dr. Terry Ronald, NASP Program Office. Sponsored by the Aero/Astro Department, 3-4:30pm, Rm 35-225.

Reporting the Gulf War*—Speakers: Deborah Amos, National Public Radio; Rick Davis, NBC; Carla Robbins, US News and World Report; Guy Gugliotta, The Washington Post; Trudy Rubin, The Philadelphia Inquirer. Moderator: Prof. Harvey Sapolsky, MIT. Sponsored by the MIT Communications Forum, 4-6pm, Rm E15-070 (Bartos Theatre). Volecular Holography: A New Prode for Vibrationally Excited Species**—Patrick H. Vaccaro, Yale. Seminar on Modern Optics and Spectroscopy, 11am-12pm, Rm 37-252. Refreshments follow.

The Tritium Beta Decay Spectrum from End to End and the Neutrino Mass**—Dr. Wolfgang Stoeffl, Lawrence Livermore Lab. LNS Physics Colloquium, 4:15pm, Rm 4-163. Refreshments, 3:45pm, Rm 26-414.

The Reagan Election Campaign, the American Hostage Crisis in Iran, and the Defeat of Jimmy Carter in 1980*—Dr. Gary Sick, Columbia Univ., Member National Security Council during Carter Presidency. The Emile Busani Middle East Seminar, CIS, 4:30-6:30pm, Rm E51-004.

Aspirations from Within*—Per Olaf Fjeld, Univ. of Oslo. Dept. of Architecture Lecture Series, 6:30pm, Rm 9-150. listing for October 26.

FILMS

Macumba*—Oct 16: Screenings at 7 & 9pm, Rm 66-110. Sponsored by Lesbian and Gay Studies at MIT. More info x3-3599.

Video News Tapes on India from Newstrack *---Oct 21: Showing in a series of video tapes, covering events during September, from Newstrack, an independent news agency in New Delhi. Sponsored by the Center for International Studies, 4:30pm, Rm E38-615.

COMMUNITY INTEREST

AARP**—Oct 22: Next meeting of the MIT Cambridge Chapter #2893, 4:30pm, Twenty Chimneys Lounge, Student Center. Business session will include a report on the 1991 AARP Chapter Leadership Workshop on the topic of "Building a Better Health Care System." Speaking session features John Baesch, Assistant General Superintendent of AMTRAK, who will present "Discover the Magic of America via AMTRAK," including a video presentation. Nursing Mothers' Support Group**—Pregnant and breastfeeding women at MIT meet to gain confidence and share info and practical tips. First Tues of each month, 10-11:30am and third Wed of each month, 4-5:30pm, Rm E23-297. Babies welcome. Info: Margery Wilson '868-7218; call x3-1316 for schedule.

Working Mothers Support Group**—An ongoing support group that meets to discuss parenting-related issues in a casual atmosphere. Meets every other Thursday, 12-1:30pm (drop in anytime), Rm 18-591. Info: Therese Henderson, x3-7492.

- Working Parents Support Group**—For all working parents in the MIT community, to discuss issues in parenting and the demands of balancing work and family. Led by Jackie Buck, Social Worker, MIT Medical Dept. 10 meetings, 12-1pm, Rm E23-501. First meeting is on Thursday, Oct 3 and continues thereafter every Tuesday Oct 8 - Dec 3, 1991. Info: x3-4911.
- Childbirth Preparation**—Early Pregnancy, Lamaze Childbirth Preparation, and Lamaze Review classes are offered to patients of the MIT Medical Department's Obstetrics Service. Call x3-1316 for details.

Tape Time for Health**-A new, free video loan program. Topics include birth, parenting, baby care, smoking cessation, etc. Visit the Health Resources Center to borrow a tape or call x3-1316 for a list of titles available

MITAC

Ticket locations and hours: Tickets may be put chased at the MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm Monday-Friday. Lincoln Lab sales in Rm A-218, 1-2pm Tues-Fri. Ticket sales in Lobby 10 and E18 and E19 on Fridays, 12-1:15pm. Further details on events are included in MITAC's monthly flyer. To avoid disappointment, make reservations and purchase tickets early. Because MITAC is nonprofit, refunds are not available.

- MITAC, the MIT Activities Committee, offers ount movie tickets for General Cinema and Loews Cinemas, both are \$4/ea (Loews tickets are not valid the first 2 weeks a movie is released). Tickets are good 7 days a week, any performance. Due to popular demand, Showcase discount tickets have returnedtickets are \$4.25 ea, valid Mon-Thurs only.
- King Richard's Faire-Oct 12, 14, 19, 20: South Carver, MA, tickets \$9/ea (reg. \$12/ea), must be purchased by Oct 15.
- Boston Classical Orchestra-Nov 1: Cherubini, Mozart, Bach. Old South Meeting House, 8pm. Tickets \$9/ea (reg \$13), must be purchased by Oct 18.
- Auto Show-Nov 2-11: Bayside Expo Center. Tickets \$5/ea (reg \$7/ea).
- Fall River Shopping Spree—Nov 2: Factory outlets galore. Bus leaves Hayward Lot 8:30am, returns approx. 5:30pm. \$11/pp incl r/t bus and discount coupon
- Weekend in Ottawa—Nov 8-11: Three nights' lodging at the Chateau Laurier and round trip bus for \$199/pp/dbl occup. Bus leaves Hayward Lot 7am on Friday, returns approx 10pm on Monday. Reservations must be made by Oct 8.
- Christmas in Kennebunkport-Dec 7: Trip includes luncheon at the Shawmut Inn, visit to the Franciscan Monastery and Prelude Activities. Bus leaves Hayward Lot 8:30am, returns approx. 7:30-8pm. Cost: \$42/pp. Reservations must be made by Oct 25.
- Museum of Fine Arts-The Council for the Arts has 10 passes employees may borrow for free admission. Call the Office of the Arts at x3-4003 for availability. At Lincoln Lab, MFA passes are available in A-150.
- Discounts (i.e., coupons, use of MIT ID, etc): Arlington Capitol Theatre, Cambridge Dis-count Coupon Books, City Books (\$1 ea, valid through 11/15/91), Ferry discounts, Kay Jewelers, Kendall Athletic Club, Lyric Stage subscriptions, Magic Kingdom, selected New England inns, North Shore Music Theatre, Plymouth County discounts, Rebecca's Café, Riverside, Vanity Fair outlet, Waltham Racquet & Fitness Club, whale watches. whitewater rafting. Call MITAC.
- Contact MITAC for diverse getaway information in Boston/New England.

SOCIAL ACTIVITIES

German Lunch Table. Meets every Tuesday 1 2pm, Walker Memorial Dining Hall. All levels welcome, open to the entire MIT community. For further information contact Sabina Homann-Grabbe at x3-4771. Sponsored by Foreign Languages and Literature.

Japanese Lunch Table. Meets Tuesdays at 1pm Sept 17 through Dec 10 (except 10/15) in Rms 400 & 407 in the Student Center. Bring a lunch and talk with native Japanese speakers. Free babysitting. Beginning Japanese speakers are especially welcome. Call Susan Sherwood x3-8095 or Kimie Shirasaki 484-6533.

MOVIES

MIT Japan Program Film Series, "Dirty Rotten Scoundrels, Japanese Style"*-Oct 21: nsored by the MIT Sleep Well Japan Program and the Japanese Language Program at MIT. 7:30pm, Rm 10-250. \$3 donation.

MIT Musicians Behind the Desks Concerts*-Oct 9: Pianist Laurie Collier (Brain and Cognitive Sciences). Beethoven, Stravinsky, Mendelssohn. Oct 11: Soprano Sandra Hommond (Center for International Studies). Monteverdi, Tomkins, Farmer, Byrd. Oct 16: Eileen Mullen, singer/songwriter/pianist (Systems Dynamic Group). Original songs and others. Oct 18: Mezzo-soprano Stacia Conklin (Office of the Dean for Undergraduate Education). Debussy, Ravel, Saint-Saëns, Bizet, Piaf. Oct 23: Pianist Nick Altenbernd (Writing Program). Oct 25: "Local Culture' with Helene Gove, vocal; Dawn Hemwall, piano; Doug Fruendlich, bass; John Georges, drums. 12pm, Killian Hall.

- MIT Chapel Series*-Oct 10: Julie Levin, violin; Laura Blustein, cello; John Gibbons, fortepiano. Haydn and Mozart trios. Oct 17: Boston Opera Horn Quartet. Rossini, Mozart, others. Oct 24: Berit Stron, classical guitar. 12pm, MIT Chapel.
- New Orchestra of Boston Rehearsal**-Oct 17, 18: Professor David Epstein, music director, invites the MIT community to attend a series of rehearsals of the New Orchestra of Boston. Oct 17: 9:30am-12noon, Kresge Auditorium: Oct 18: 10am-1pm, Kresge Rehearsal Room B. The program includes Tchaikovsky's Serenade for Strings, Bloch's Concerto Grosso for Strings and Piano, and Three Pieces for String Orchestra by Arthur Berger. Also, the November 8 rehearsal from -12noon in Kresge Auditorium is open to the MIT community.
- MIT Brass Ensemble*-Oct 18: Larry Isaacson, director, 8pm, Kresge Auditorium
- MIT Chamber Orchestra Concert*-Oct 19: Steven McDonald, director, 8pm, Kresge Auditorium
- Piano Recital*-Oct 23: Patrick O'Byrne, works of Beethoven, Ravel, Granados, Lilburn, 8pm, Killian Hall.
- MIT Symphony Orchestra Concert*-Oct 26: Prof. David Epstein, director with Patrick O'Byrne, piano. Works of De Falla, Ravel, Debussy, 8:30pm, Kresge Auditorium, \$1.

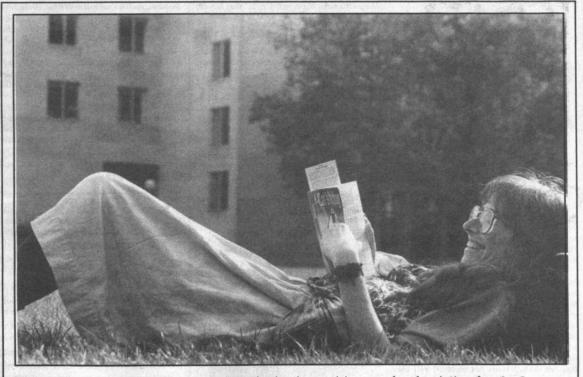
THEATER

Call the Theatre & Dance Performance Hot-Line at x3-4720 for complete up-to-date info on theatre and dance performances at MIT.

- Auditions for "Veronica's Room"**-Oct 13, 14: Auditions for MIT Community Players production of "Veronica's Room" by Ira Levin. 7-10pm, Kresge Rehearsal Room B. Call x3-2530 for more information
- A Midsummer Night's Dream*-Oct 17-20, 24-26: Kermit Dunkelberg, director. MIT Shakespeare Ensemble Fall Production, 8pm. Student Center Sala de Puerto Rico. \$7, \$5 MIT/Wellesley students, group rates available for opening weekend. Call x3-2903.
- Road Kill Buffet*-Oct 17: MIT's all-student improvisational comedy troupe, 8pm, Rm 10-250

DANCE & MOVEMENT

- MIT Ballroom Dance Club*-Oct 13: Tango I, 1-2pm; Rumba 2, 2-3:30pm; Professional Workshop TBA, 4:30-5:30pm; General Dancing, 3:30-4:30pm. Prices range from 50¢ to \$3. Meets in Walker Memorial, 1st flr.
- MIT Folk Dance Club*-Three nights of dancing. Sunday: International Dancing, 7-11pm, Lobby 13, with Early Teaching from 7-7:30pm. Tuesday: Advanced Balkan Dancing, 7-11pm, Rm 491, Student Center. Wednesday: Israeli Dancing, 7-11pm, Lobby 13, with Early Teaching from 7-7:30pm. Info: x3-FOLK.
- Aerobics Classes*-Sponsored by the MIT Dance Club, Every Mon, Wed, Fri, 6-7pm, Bldg W31 Dance Studio. \$4/class, beginners welcome. More info: Julia, 492-1369.
- Yoga*-Ongoing classes in traditional Hatha and Iyengar style. Beginners: Mon, 5:10pm; Intermediate/Advanced: Mon. 6:30nm. Rm 10-340



INDIAN SUMMER—Debbie Lerman, '79, enjoys a book in the sun while waiting for a friend. She is from San Francisco. Photo by Donna Coveney

Vest: Attacks Hurt Universities

(continued from page 1)

have profound implications for us. "It means further that we must strive

energetically to understand the forces at work, and their causes, and then develop ways of dealing with them," he continued. "Thoughtless defensiveness is neither an appropriate nor helpful response. We must listen to and talk with our critics as well as serve as critics. We must correct those areas in need of correction. We must adjust to new realities, recognizing the opportunities and responsibilities as well as the difficulties we face."

As one example, Dr. Vest said the investigations into indirect cost charges and the manner in which they were conducted and reported by the press 'have tended to erode public confidence in our universities and have unleashed forces in Congress and elsewhere that have the potential to do great damage to the nation's system of higher education and research."

Dr. Vest said the investigations have raised "authentic issues" and that the university community must correct any legitimate problems, especially by tightening, clarifying and standardizing accounting procedures in order to prevent erroneous charges to indirect cost pools.

"What is not needed," he added, "is a rush to judgment that will produce an ill-considered quick fix that will harm the long-term health of our universities and our national system of research."

Dr. Vest said he was especially concerned that the executive Office of Management and Budget (OMB) retain central responsibility for indirect cost matters. "The specter of the details of indirect cost accounting becoming part of the annual appro-

involving platforms and walkways over a large pool of water, video production, audio tapes and a game of goh. Oct 20: Public reception and talk by May Sun, 3pm. Through Nov 24. List Center 24-hr Hotline x3-4680.

priations process in Congress is daunting," he said.

The MIT president said it was important to rely on the "fundamental principles" spelled out in the OMB's Circular A-21, which governs the financial relationship between government and universities receiving federal funds in research.

"In brief," he said, "these principles are that university faculty, graduate students and staff will perform research at low cost, and that simultaneously they will maintain and advance the scientific, technological and intellectual infrastructure of America by educating the next generation of researchers. In return, the US government will recognize the diversity among American universities and the dual role of graduate students in research and education, and will bear its full and fair share of costs."

While strongly defending the flow of scholars and knowledge across national boundaries, Dr. Vest said he believed that the fraction of international students in US graduate science and engineering programs is too high, largely because of failures of US education.

"It should be a goal of our secondary and undergraduate schools to educate and inspire US students to move into such demanding and important programs of study rather than standing aside while more intellectually energetic and disciplined students from other nations take up the challenges," he said.

In his discussion of other issues, Dr. Vest said that although a few cases of alleged scientific misconduct have captured the public's attention, they represent "rare" events. Nevertheless, he said, "we must look to the substance behind allegations and we must continually review and refresh our commitment to basic academic values.

"If we are not able to do so," he added, "we can be sure that others will be only too glad to do it for us. And what we don't need is more bureaucracy and increased overhead expenses for programs to enforce scientific integrity.

On the subject of discussing financial aid for students with other universities, Dr. Vest said MIT had decided not to sign a consent degree to stop the practice because the university does not believe it violated the Sherman Antitrust Act or that it is in the nation's interest for universities to compete financially for students.

A supplement with the full text of the President's Report will be included in the October 23 isssue of MIT Tech Talk

Lowell Course

Applications are being accepted for a seven-week course in Elementary Computer Skills at the Lowell Institute School. The course begins Friday, Nov. 1, and runs 5:30-8:30pm through December 13, and includes basic DOS commands and keyboarding with repetitive drill to build confidence and competence. The course is covered by the MIT Tuition Assistance Plan. Applications are available in Rm E32-105 or by calling x3-4895.

tion and Halloween Party, 2-3:30pm. Health Services Center Atrium, Bldg E23.

WELLESLEY EVENTS

Admission to below Lecture Series Committee Movies is \$1.50, and MIT or Wellesley identification is required. For the latest Lecture Series Committee movie and lecture information, call the LSC Movieline, x8-8881.

LSC Movies**-Oct 11: Class Action, 7 & 10pm, Rm 26-100. Oct 12: White Fang, 3, 7 & 10pm, Rm 26-100. Oct 13: Three Days of the Condor, 7 & 10pm, Rm 10-250. Oct 18: The Grand Illusion, 7:30pm, Rm 10-250, Truly, Madly Deeply, 7 & 10pm, Rm 26-100. Oct 19: Cyrano de Bergerac (1990), 6:30 & 10pm, Rm 26-100. Oct 20: Moonstruck, 7 & 10pm. Rm 10-250. Oct 25: Blithe Spirit, 7:30pm, Rm 10-250. L.A. Story, 7 & 10pm, Rm 26-100. Oct 26: Oscar, 7 & 10pm, Rm 26-100. Oct 27: Little Shop of Horrors (1986), 7 & 10pm, Rm 10-250.

MUSIC

For recorded information on upcoming concerts and lectures call the MIT Music and Theater Arts Concert Line, x3-9800. Updated weekly.

For information call Ei Turchinetz, 862-2613.

MIT Dance Workshop Classes*-An activity of the Theatre Arts program taught by members of the Beth Soll & Co, MIT's resident dance company. Beginning Modern Technique, M,W, 3:30-5pm, T-Club Lounge, DuPont Ctr: Intermediate Modern Technique, Tu, Th, 5:30-7pm, Walker-201; Composition/Improvisation, Tu 1-2:30pm, T-Club Lounge, DuPont Ctr; Tap, W 11:30am-1pm, Walker-201; Modern Dance Technique -All Levels. F 11:30-1, T-Club Lounge, DuPont Ctr. Info: x3-2877 or x3-5623.

Tai Chi**-Ancient Chinese exercise beneficial to physical, mental, and emotional health. Call x3-4724.

EXHIBITS

List Visual Arts Center-Jana Sterbak: States of Being. Overview of ten years' work by Sterbak, a Czech-born Canadian sculptor, organized by The National Gallery of Canada. May Sun: Artist-in-Residence. Los Angeles-based Chinese-American artist May Sun will be building an elaborate and ambitious room-sized installation, "Fugitive Landing,"

MIT Museum Bldg (N52)-Buckminster Fuller: Harmonizing Nature, Humanity and Technology. Retrospective including models, drawings, photographs, artifacts. Through Dec 15. Doc Edgerton: Stopping Time. Photographs, instruments, and memo rabilia documenting the late Harold Edgerton's invention and use of the strobe light. Ongoing. Light Sculptures by Bill Parker. Vivid interactive light sculptures, each with its own personality and set of moods. Ongoing. Holography: Types and Applications. Scientific, medical, technical and artistic imaging drawn from the work of the Spatial Imaging Group at MIT's Media Lab, Ongoing. Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr. Colorful revolving sculptures based on mathematical formulae. Ongoing. Harold Tovish: Tenant, 1964-65, Sculptural installation utilizing stroboscopic light by MIT's Center for Advanced Visual Studies Fellow. Ongoing. MathSpace. Hands-on exploration of geometry. Ongoing. Tues-Fri 9-5; Sat-Sun 1-5. 24-hr Hotline: x3-4444.

Hart Nautical Gallery-Ongoing exhibits: A Thousand Years of Voyages of Discovery-Exploring the Ocean from Surface to Seabed. An examination of historic explorations of

Corridor Exhibits-Bldg 1 & 5, 2nd floor: John Ripley Freeman, Lobby, Bldg 4: Norbert Wiener, Karl Taylor Compton. Community Service Fund, Ellen Swallow Richards. Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Bldg 6: Laboratory for Physical Chemistry.

the sea's surface and current efforts to under

stand the ocean's depth as well. 77 Mass Ave,

Mon-Sun 9am-8pm.

Compton Gallery-Architectural Illusions. Sculptures of Raymond Bareiss. Oct 10-Dec 27. Hours 9-5 weekdays.

Other Exhibits-Institute Archives and Special Collections: Julius A. Stratton: Happy Birthday. In honor of his 90th birthday, May 18, this exhibit chronicles Dr. Stratton's career at MIT from his student days (Class of 1923) to his presidency (1959-1966). It also reviews his government service and scientific contributions outside MIT. WIT at MIT: Thesis Humor. The lighter side of thesis writing as expressed in titles, dedications and acknowledgments. First floor corridor of Bldg 14.

Staying Healthy-Oct 27-Nov 30: An exhibit of drawings by the youngest members of the MIT Health Plans. Oct 27: Opening Recep-

- Oct 9: "Discovering the Inner Artist," Barbara Beardsley, Mary Lou White, Museum Conservation Lecture Series, 4:30pm, Jewett Arts Center.Auditorium.
- Oct 17: "Coffee, Tea or Me: Flight Attendants at Midlife," Sheila Nutt, Center for Research on Women, 12:30pm, Cheever House. Call 431-1453.
- Oct 24: "Women in Chemistry: Why so Few? What Can We Do About It?" Phyllis Brown, Visiting Research Scholar, 12:30pm, Cheever House. Call 431-1453.

LOOKING AHEAD

Enhancing Your Competitive Advantage*-Nov 2: 1991 Fall Workshop presented by the MIT Enterprise Forum, Kresge Auditorium. Registration \$125/person (\$95 if received by Oct 14). Call x3-8240.

Send notices for Wednesday, October 23 through Sunday, November 3 to Calendar Editor Rm 5-111, before 12 noon Friday, October 18.



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All extensions listed below are campus numbers unless otherwise specified, i.e., Dorm, Linc, Draper, etc.

MIT-owned equipment may be disposed of through the Property Office.

Deadline is noon Friday before publication.

FOR SALE

Desk, 30x60", 4 drawers & 1 file drawer, \$50; chair, \$15. Call x3-7132.

- 13" color TV, exc cond, \$90: 5.25" dual flppy, Herc montr, Panas 24 p prntr, sftwr, \$600; comptr & montronly, \$350; Wordperf 5.0, \$80; swivel chr \$45; 2 vacuum, \$12 & \$8, more. Call 241-0991.
- French Prov LR set, incl sectional couch, 2 chairs, 2 end tbls, 2 lamps, coffee tbl, askg \$950. Gina, Linc x7923 or 396-8455.
- IBM PC, NEC Multisync color EGA montr, 10Mbyte Seagate HD, 5.25" FD, 1200-baud modm, clock card, Ltus 123, Prof Write, Turbo Pasc & C, \$500 or bst. Thomas, Draper x8-1225 or 894-1289.
- Bionaire 1000 air purifr/ionizer w/replacement filter, \$75 firm; AM/FM radio, fits Toyota Corolla, \$50 or bst; sm bike helmet, sz sm/med, \$40 firm; wood hi-chr, \$20. Jan Blair, Draper x8-2843.
- Crib w/matt, \$35; Westbend humidfr, \$35; air cond, \$100; chest of drwrs, \$40; 2 black Windsor chrs, \$20 ea; misc spkrs & chrs, bst offer. Call x3-3175 or 332-8251.
- Kerman Oriental handknotted runner, 16'x29", matching runner 7'x29", perf for hallway or staircase, exc cond, just cleaned, \$750 & \$550. Call x3-6081.
- Sony CD, double cass recorder, megabass, boom box, only 1 1/2 yr old, \$285. Ramon 391-2528.
- Smith Corona elec typewriter w/full-line correction memory, auto return, center & underscore, like nw, \$65. Call x3-5915.
- 2-pc sofa set w/Q-sz sofa bed, beige, lk nw, comf, \$380; steel desk 30x60", 5-drwrs w/file cab, grt for study, \$38; dresser w/mirror, 6-dr, \$60; beige carpet 9x12, 2-layer, \$30. Call 354-8226.
- Rabbit fur jacket, beige, W's sz large, quilt lining, exc cond, \$25. Mary Greene x8-5871.
- Lt blue carpet 10.5x12', gd cond, \$60; lt tan carpet w/binding 9x12', \$50. Paul, Linc x3981 or 893-2841
- Bench, modern, black, 30x70, nw, \$95; studio \$49: ouch, red, opens to queen, modern

- Magnavox color big-screen TV, 26" diag screen, cable ready w/remote, \$300 or bst, grt deal. Call x3-2744.
- Modern ktchn tbl & chr set, b&w w/expandable formica table top & 4 leather cushioned chrs, \$300. Rob x3-1481.
- Octagon 42" white ktchn tbl w/lf & 4 chrs, \$100; Mikasa stnwr svc for 8, \$35; sq glass walnut tbl, \$50; maple phone bench, \$60; child's desk, w/ chr, \$25. Brian, Linc x3801 or 646-7108.
- Cheap airline round trip, transferable via US Air or Midway, go south to Florida, Nassau etc or to midwest by Dec 18. Marge 617-861-0027.
- R/t ticket Boston to Las Vegas, non-stop, America West Boeing 757, depart Boston Oct 10 8:50pm, return Oct 14 at 7am, \$175. Bill, Linc x3369 or 508-653-3971.
- Small white dinette set w/drop-lf table, opens to 36", 2 café style chairs, like nw, \$125. Judith x3-6607.
- Microwave, Sharp Carousel II, 13 1/2" cube, like new, \$50. Lois x3-3121 or 569-2045.
- ASCII mainframe workstation terminal, kybd & 80 char dot matrix printer (incl 2 ribbons), modem/ mainframe compatible, nvr used, still in boxes, \$300 or bst. Peter x8-7390 or 545-3611.
- Multi-family yard sale: furniture & clothes (some antique), shoes, books, small app, ktchn stuff, more. 16 Burnham St., Somerville (Davis Sq), Sat Oct 19, 10-3. Call x3-2348 or x3-3372.
- Man's black leather figure skates, sz 11, exc cond, \$9. Call 489-0460.
- Women's 10-sp bicycle for sale, \$45. Michael x3-9865 or 492-6952.
- Double sz mattress & bxsprg w/metal frame, \$50 firm; baby grand piano, 5'4" mahogany, v gd cond, \$2500. Call 876-6510.
- Japanese maple trees & bamboo plants, 5"-4', \$5-\$25. Nancy x3-4690 or 862-2933.

ANIMALS

Free 4-yr old small white German Shepherd, exc w/children, all shots up to date, spayed, nds lots of love & room. Marilyn or Gary 508-685-2443.

VEHICLES

- 1970 Olds Cutlass. Nick are you still interested in this car? Call Larry 617-332-7152.
- 1973 Suzuki T500 two-cycle motorcycle, runs well, helmet & cover incl, \$100 or bst. Dan x3-1815.
- 1980 Honda Accord, 4-dr sedan, askg \$500 or bst. Eileen x3-1572.
- 1981 Chev Malibu wgn, runs well, looks good, \$700 or bst. Call Draper x1578 or 239-2231
- 1984 Subaru GL, manual 5-sp, a/c, 4-dr, AM/FM, v gd cond, 76K, \$1900 or bst. Call x3-7132 or 484-5178.
- 1987 Pontiac Grand Am, 5-sp manual, cassette deck, 68K, \$4500. Call Draper x8-1225 or 864-1289.
- 1987 Isuzu I-Mark, blue, 2-dr htchbk, a/c, AM/ FM, 5-sp manual, 63K, well maint, v economical, \$2700 or bst. Kom x5-7693 or ly mssg.
- 1988 Ford Festiva, manual 4-sp, white, no rust, hatchbk, 58K, v reliable transportation, grt gas mileage, must sell, \$2000 or bst. Samantha 617-595-6045.
- 1989 Layton 29' travel trailer, exc cond, slps 8, awning, microwave, stereo, many extras, must sell, \$12,500. Ken 603-635-7671.
- 1990 Toyota Tercel, red, auto, ps, pb, a/c, rear def, stereo/cass, 4-way spkr sys, 37K, much more, very dependable, economical, \$7900. Call

- Ski house: spectacular modern 4BR hse, 20 min from Mt Abram, 35 min from Sunday Rvr, x-c on lake in front of hse, avail Christmas wk & selected other wks, \$150/day. Call x3-1064 or 862-2220.
- St. John, US Virgin Isl: hilltop vacation hse, 360° vws, privacy, close to pvt beaches, natl park. water sports, simple comforts, slps 4, \$900/ wk. Alfred 646-8618.
- Watertown: Mt Auburn, 4BR, newly remodeled, nr shopping mall & bus to Hvd Sq, avail immed, ideal for college or intl students; \$265/person or \$980 for apt, Call 527-3431 eves or wknds.

WANTED

- Wanted: hard (Winchester) drive for Digital Rainbow (RD50, RD51 or RD52) plus controller board & cables if needed. Call x8-7394 or 782-9012.
- Wanted: country house for Thanksgiving weekend, sleeping at least 6. Marie 868-4076.
- Expert in infra-red remote control & receiver, circuit design a must. Sue x3-7406 bef 2pm or 969-4260 aftr 3pm.

ROOMMATES

- Graduate student or professional wanted to shi 4BR apt near Tufts, \$233/mo + util. Call 484-0036.
- Wellesley: share quiet 3BR hse w/grad students & dog, 1BR furn avail immed, ww, w/d, cath ceilings, 5 min walk to Wellesley & comm rail, \$400/mo. Call Draper x8-1424 or 237-2254.

CARPOOL

Riders/rides needed to and from Chelmsford/ Billerica area (exit 29 on Rt 3) to MIT. Can pick up from exit 29, Rt 3 southward, or be picked up. Jim x3-5586.

CHILD CARE

Child Care Providers: If you wish to advertise your availability to care for children in your home, we are required by law to publish your family day care license number in your ad. This applies to all child care ads unless you specify that you will take care of the child in his or her home.

27 yr old Israeli woman sks regular/occasional child care position(s), lots of experience w/ kids of all ages, spk Hebrew and English, grad of Academy of Arts in Israel. Call Rinat Harel 742 7447.

MISCELLANEOUS

- Word processing & graphics, thesis reports, term papers. Scotti x3-4657.
- I am interested in finding out if the Electroluminescent Society still exists, and if Dr. Lichtenstein is a member. If anyone has that info pls contact me. Chris Adams x3-6174 or 625-3583.
- Russian language svcs: interpréting, translating, word processing, editing, language instruction. Call 662-3153.
- Will trade Albany sticker for Sloan, Hayward or East Lot; suede jacket for sale, bst offer; pair Elan 170 skis, \$80 or bst; 1988 Mercury Topaz XR5 low mil, perf cond. Lisa x3-0435.



CRIME SHOW—Campus Police Officer Mark LeBlanc explains auto anti-theft devices at last year's Crime Prevention Exhibit in Lobby 7. The popular event will be repeated on Friday, Oct. 18, with the latest in self- and property-protecting devices and lots of handouts.

GOOD WORKS

Public Service Day Draws 400

More than 400 students showed up last Saturday to participate in the MIT Public Service Center's second annual Public Service Day.

Dormitories, fraternities, sororities, and other student organizations volunteered as groups to be assigned to individual agencies. After registering, receiving their T-Shirts, and eating breakfast, people were taken by a student agency leader to their respective sites for a day of work.

The agencies were organized into five areas of need: education; health and medical; homelessness; hunger, and youth. Each of the areas was coordinated by an issue leader, also a student volunteer.

After the students finished their projects, they returned to MIT for a barbeque to discuss their experiences.

Antonio Morales '95, a participant who went to The New Program in Cambridgeport, said "When I first came to MIT, I never imagined I'd be doing this kind of activity."

Supervisors from the agencies themselves were also invited to return with the students. Suzanne Palmer from the Elizabeth Peabody House said, "It was wonderful! You sent us a great crew. The students were hard workers and did a marvelous job."

The barbeque was organized by Mary Herndon, G. Many vendors were quite generous. New England Meats donated hot dogs, and Fantini Bakery discounted buns. Family Fruit was also among the sponsors for the barbeque.

Christine Ma '92, co-coordinator of Public Service Day along with Stephanie Tai '92, said, "The day was a great success. It was inspiring to see so many students interested in the community." Many felt that the day was a stimulating event. "There are so many college students in this area; if we could just capture their enthusiasm, we could get so much done," said one of the agency leaders.

Public Service Day was sponsored by Student Financial Aid, MIT Housing and Food Services, the Student Alumni Council, the Graduate Student Council, the MIT Computer Connection, MIT Employee's Federal Credit Union, ARA Services, DormCon, La Verde's Market, the Office of the Dean for Undergraduate Education, Urban Studies and Planning, and the Athletic Department.

Sick Fish

(continued from page 1)

The group is in the process of studying this and other phenomena related to the ultrasound technique. They are also determining the best conditions for the procedure, such as the amount of time a fish should be exposed to ultrasound, the intensity of the ultrasound, and the concentration of compounds to be added to the water.

Said Dr. Zohar, "We know the technique works, but we still need studies to optimize it and find out if it will be as efficient as we hope it will be."

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Triple dresser w/matching hutch, dark pine, \$250 firm; full-sz Sharp Carousel microwave, \$100; full-sz brass-plated headboard & frame, \$75. Irene, Linc x7875.

Multi-positional single-sz electric bed w/built-in leg & back massage units & solid wood headboard, exc cond, orig \$900+, askg \$400. Linda x3-4905 or 617-646-8454

Windsurfing package, complete setup, grt for beginner, includes board, mast, boom and sail. Heather x3-1322.

2 10-sp bikes, GE microwave, 2 bureaus, Singer Touch & Sew, Pentax sport camera 35mm, Toshiba AM/FM cass plyr. Susan 623-1383.

Carpet w/stain-resistant pad; ktchn table; umbrella; elec portable washing mach, exc cond, orig \$457, askg \$200. Call x8-1379.

Bed, white frame, matt & bxsprg, \$150; slot mach end table, \$200; 5 drwr desk, \$75; chaise (feigning couch) coral brocade, \$150; Thule roof rack. lk nw, \$95. Maria x3-0440 or 868-1632.

508-369-3982

Two motorcycles, both garaged, mint: 1990 Ninja 650, 1000 mi, black/red, \$4500 firm. 1988 BMW K75S, 2400 mi, red, \$4600 firm. Chandra x3-6712 or 446-8014 lv mssg.

HOUSING

Concord Ctr: studio apt, attractively furn, pvt entrance, patio & off-st prkg, full ktchn & bath, charming 18th cent hse, \$500/mo incl ht. Jean, Linc x4516 or 508-369-6348 eves 5:30-9pm.

Loon Mt Village: fall/winter rentals, townhse, 3BR, den, slps 8-10, TVs, VCR, sports center, indr pools, hiking, skiing, more, restaurants, etc nrby, Call 617-862-3856.

Loon Mt/Lincoln NH: vacation riverfront condo, avail Oct, Nov, Dec, reasonable rates wkdys, wknds 2BR 2b slps 6 tennis clubbse on premises. Art x3-8395 or 472-8551.

Medford: Som, Ten Hills, quiet resid area, lovely 2BR, renovtd & deleaded, mod bath, hdwd flrs, fplc, no pets, no lease, \$725+. Call 625-1326 aftr 5pm.

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The

TODAY

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Colloquium

Follow-Up

for the Arts

The MIT community is invited to an

informal dinner/discussion on arts-

and humanities-related issues, fol-

lowing the MIT-wide Colloquium on

"Teaching Within a Research Univer-

sity." The colloquium is Wednesday,

Oct. 9, from 4-5:30pm in Kresge Au-

ditorium, and the departmental meet-

ing is from 6-8pm in Rm E15-305,

preceded by a pizza dinner in the

Atrium of the Wiesner Bldg. Among

the proposed discussion items are: the

development of new criteria for the

definition of "research" in arts-related

disciplines; the need for both under-

graduate and graduate arts and hu-

manities programs, and their integra-

tion into a science and technology-

based institution; and tenure evalua-

tion for arts faculties. Information:

Dean Reads

Ayida Mthembu, assistant dean for stu-

dent affairs, will be the featured poet at

the Bookcellar Cafe's evening of poetry

In addition to being a poet, Dean

Mthembu is a playwright and screen-

writer, with a Master of Fine Arts from

the American Film Institute. She will

read from her book Ambrosia: A Mon-

tage of Inner Recordings as well as from

The Bookcellar Cafe, a new establish-

ment at 1971 Mass Ave. in Cambridge,

has inaugurated these Thursday night

poetry readings which begin with an

open mike at 7pm, followed by the fea-

tured poet, and conclude with a "poetry

slam" - a competition, in rounds, in

which individuals read their own poems

and are judged by a panel of judges

Admission is free; there is a \$2 entry fee

253-4006.

THURSDAY

Poetry

on Thursday, Oct. 10.

later works.

New Season Begins at List Visual Arts Center

The List Visual Arts Center opens its 1991-92 season presenting the work of two female artists. The List is located on the ground floor of the Wiesner Building (E15) and is open weekdays noon-6, weekends 1-5. Both shows run through November 24. Information: 253-4680.

Jana Sterbak

Jana Sterbak: States of Being, is a tenyear overview of this Czech-born Canadian artist's work and consists of approximately 15 sculptural works ranging in media from cast bronze and lead to such unusual materials as dressmaker's tapes, electrical stove coils, and raw flank steak. The exhibition also includes a number of the artist's drawings and photographs.

May Sun

Multi-media artist May Sun began working daily in the Reference Gallery of the LVAC on September 30, building an elaborate and ambitious room-sized installation.FUGITIVE LANDING: a revolutionary at sea, involves walkways over a large pool of water, video projection, audio tapes, and a game of goh.

The inspiration for this piece is the sometimes secret journeys of the Chinese statesmanSunYat-Sen(1866-1925)who sailed to the United States to solicit support for his vision of a western-style democracy for China.

Los Angeles based May Sun was born in Shanghai and lived in Hong Kong until the age of 16, when she came to the US to attend college. Her focus on this earlier episode of Chinese-American relations is both personal and political. Her grandfather was a general in Sun Yat-Sen's army and one of the patriots who traveled to Japan to plan the Chinese revolution. Her ongoing commitment to exploring the dialectic between the personal and the political, the self and social transformation, was reaffirmed by the climax of the recent Chinese democrat movement in Beijing's Tianamen Square in June, 1989.

May Sun often refers to aspects of her Chinese heritage in her work, which consistently crosses cultural and political boundaries as well as the boundaries traditionally separating art forms and disciplines.

While in residence at the LVAC the artist will be researching details of Sun Yat-Sen's visit to Boston in 1911. Visitors are encouraged to stop in repeatedly to meet the artist and observe the development of the work, the completion of which will be celebrated by a public reception and artist's talk on Sunday, Oct 20 at 3pm.

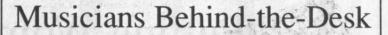
May Sun is interested in talking to MIT students who are descendents of Sun Yat-Sen and/or who are interested in expressing their ideas about this historical figure. Anyone wishing to contact the artist can reach her at x3-4400.

OPENING RECEPTION

Visual Trickery in the **Compton Gallery**

an opening reception for Architectural Illusions: Sculptures by Raymond Bareiss, Thursday, Oct. 10 from 5-7pm, in the Compton Gallery.

The exhibition will feature a collection of Bareiss Columns, a structural phenomena with artistic, engineering, and architectural ramifications.





Carrie Nafziger Bullington



Laurie Collier



Eileen Mullen



Stacia Conklin



Nicholas Altenbernd

new concert series featuring the musicianship of MIT employees debuted this fall. The MIT Musicians Behind-the-Desk Concert Series presents MIT staff members in Wednesday and Friday noon performances in Killian Hall. Made possible by the MIT Office for the Arts, and Music and Theater Arts, the first performance was Friday, Oct. 4 and featured soprano Carrie Nafziger Bullington, senior secretary-technical in the MIT Plasma Fusion Center, in a program of duets by Mozart, Brahms, Faure, Schumann, and Rossini.

On Wednesday, Oct. 9 (today), Laurie Collier, administrative staff assistant in the MIT Department of Brain and Cognitive Science, presents a piano recital featuring works of Beethoven, Stravinsky, and Mendelssohn.

Vocalists abound in the October lineup which continues October 11 with Sandra Hammond, soprano (senior secretary, MIT Japan Program) in a vocal quintet featuring a program of early music by Weelkes, Byrd, Farmer, and others.

Many of the staff members in this series are professional musicians with active performing lives outside of MIT.

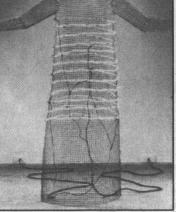
On October 16, Eileen Mullen, vocalist/pianist (administrative secretary, MIT System Dynamics Group), will present a set of original songs and cover songs, assisted by Ken Selcer, guitar and back-up vocals, and Lynn McKenna, keyboard and back-up vocals.

Stacia Conklin, mezzo-soprano (senior office assistant, MIT Under-graduate Education Office), accompanied by pianist Darryl Cooper, will sing works of Barber, Poulenc, and Cole Porter on October 18.

On October 23, amidst this sea of vocalists, a piano interlude of Beethoven and Chopin will be performed by pianist Nick Altenbernd, formerly of the Music Library and currently administrative secretary in the MIT Writing Program.

Helene Gove, staff assistant in the MIT Credit Union is vocalist of the jazz group "Local Culture" performing on October 25.

And finally for the October schedule, Paul Johnson, viola da gamba with the Providence Players (research staff member, Laboratory for Computer Science), will present a program of chamber music for recorder, gamba and harpsichord with Margaret Spura and Catherine Gordon-Seifert on Wednesday, Oct. 30.



I want you to feel the way I do ... (The Jana Sterbak dress) 1984-85

symbol, the artist transforms and activates ordinary, physical objects in ways that subvert normalcy, examining social and cultural conditions. Sterbak uses the physical properties of materials as analogues for psychological states, or, as she has observed, "the material be-comes part of the idea." One of Sterbak's most important works is Vanitas: Flesh Dress for an Albino Anorectic, a dress of raw meat in which the artist comments upon both the objectification of women and the perishable nature of the human body.

(Wiesner Building, lower level).

Using the human body as a central

On Thursday, Oct.24, Czech art historian Milena Kalinovska will present the lecture "In Search of ... Jana Sterbak," at 8pm in the Bartos Theater

The MIT Museum invites everyone to

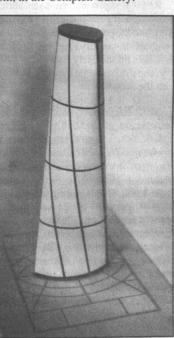
for the poetry slam.

selected from the audience.

Until the cafe menu is prepared, complimentary coffee and tea will be served. Information: 864-9625.

Erratum

The Festival Jazz Ensemble will perform Saturday, Oct. 19 at 9:30pm in Kresge Auditorium following the MIT Chamber Orchestra concert, not on October 21 as previously reported.



California artist/inventor Raymond Bareiss has employed light, movement, and the manipulation of form in space to create a collection of structurally sound columns, which appear on the verge of toppling one moment, and perfectly stable the next. Each 6-9' high columnar sculpture is on a rotating base, with special lighting, to enhance the illusion.

Bareiss first conceived this structural anomaly while attempting to design an unusual, twisted hotel canopy. Since then he has designed a number of variations including skylights (using a column of space), cosmetics bottles, home furnishings, and high-rise office buildings.

Architectural Illusions continues through December 27. The Compton Gallery is located off Lobby 10. Hours are weekdays 9-5. Information: 253-4444.



Akira Kurasawa's 1960 classic, The Bad Sleep Well, the second in a series of three Japanese 'bad guy' films, will be shown Monday, Oct. 21 at 7:30pm in Rm 10-250. The secretary [Toshira Mifune] to the president of a government housing company suspects his father's death was caused by foul play. He plots to expose the corporation's corruption, but in seeking revenge he himself becomes degraded by the evil he is seeking to combat, eventually sacrificing his wife's sanity and his own integrity. In Japanese with English subtitles. \$3 donation. 253-8095.

Putting Women's Issues into Context

(Dr. Ruth Perry is Professor of Literature and Women's Studies in the Department of Humanities. Naomi F. Chase, assistant director of the News Office interviewed her recently on the evolution of women's studies at MIT. Professor Perry will also discuss the subject and coming signs of changes in the field at the Women's Forum on Monday, Nov. 4. at noon in Killian Hall.)

NFC: A recent study of smoking habits shows young black women smoking less than young white women, apparently because they are less concerned about their weight. What would Women's Studies have to say about that?

RP: It would say you can't generalize across race any more than you can generalize across class. It might show that the issue of weight is more salient to women's body image in white culture, and a different kind of body type is considered sexy and womanly in black culture. Women's Studies have become much more complicated with the recognition that gender interacts with historical period, nationality, ethnicity and class in different ways in different contexts. The driving motive in Women's Studies is to make clear what the experiences, perceptions and contributions of women have been, always paying attention to historical periods, national boundaries, ethnicities.

NFC: So women's feelings about their bodies can be different at different periods in history or in different cultures.

RP: Yes. Or their feelings about other issues. Here's another important example. What may have been liberation for white middle class women in the mid-70s, i.e. getting out of their houses and going to work, was not necessarily liberation for black women who have usually worked outside the home and have usually been responsible for taking care of their families, as well. For some black women, liberation may well be the luxury of staying home and raising their children peacefully, rather than having to always balance working, household duties, childrearing, self-education, etcetera. The definition of what is liberation is always related to context.

Here's another example. Several vears ago I was teaching an Introduction to Women's Studies class to a small group of seniors; a couple of black women and four white women. At a certain point in a discussion of black and white identity formation, we got onto mother-daughter rela-

tionships. The black women in this class and one of the white women adored their mothers. The other white

mothers' lessons about what it meant to be an adult woman.

We did a totally unstatistical, methodologically imperfect study, asking everybody we knew how they felt about their mothers. It seemed to corroborate our conclusions that family configurations in black families set a different kind of standard when the maternal head of household who is the breadwinner is not in a subordinate relation to a particular man. The messages she gives her daughter are not ambivalent about what it means to be in the world as an adult woman. However, I'm hesitant to generalize those ethnic differences beyond these people in my classroom.

NFC: How much can you generalize about anorexia from the study on smoking and women's bodies, especially if you don't regard anorexia as only a contemporary phenomenon.

RP: But it's also not a cross-cultural phenomenon.

NFC: It seems to exist in cultures that are heavily patriarchal where women have a difficult time finding a place for themselves. For instance, Saint Catherine of Sienna, who was anorectic, starved herself to death at the age of 33 in 14th century Italy.

RP: When I was in China in '87, I found that people did not understand eating disorders. They were curious about sexual practices in the US, because Chinese culture is much more straight-laced about such things. But eating disorders! They couldn't believe such a thing existed anywhere in the world. It's not a current problem in China or a historical one, I think.

NFC: Why is Women's Studies important for MIT students?

RP: The special focus of Women's Studies at MIT has got to be the relation of gender to the practice and theory of science and engineering. When I started this program in 1982, there was an interest in changing the gender constituency of the undergraduates.

NFC: What was the ratio of men to women then?

RP: When I first started teaching here in '73, I had two women in a class of 20. It was 10 to one, or less. The Women's Studies program was born at the same time as the administration became interested in increasing the proportion of undergraduate women. And to the extent that Women's Studies made the Institute a more hospitable place for women, it was very important. For instance, my classes were used in a film to recruit women students.

I felt that it was important to develop MIT as the country's central source of information on gender and

The special focus of Women's Studies at MIT has got to be the relation of gender to the practice and theory of science and engineering.

The overwhelming majority of human beings are dependent on a woman for maintenance and subsistence, and those women must wrest that maintenance and subsistence from the earth in whatever form they find it. In Africa they're responsible for gathering water and fuel. In coal-min-

ing towns in America they're responsible for keeping the sheets or plates clean as the coal dust filters over everything.

It's the grassroots organizers around environmental issuesnot the policy makers, and not the researcherswho have noticed more defective births in their communities, that people are getting lung disease, that the water tastes funny. And it's women who tend to do the organizing around these issues. One of the things we're interested in doing is identifying those specific areas in which women and environment intersect.

NFC: And what are they?

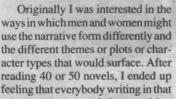
RP: We want to look at: women's lives in rural and urban environments, the relation of women to institutions, and

tal movements. For example, the moti-

NFC: Kirk Sales makes a similar point in The Discovery of Paradise, his new book about Columbus, describing the European patriarchal attitudes about man's right to dominate nature which became American attitudes.

NFC: That's Sales' point, that those attitudes were reflected in the development of capitalism.

RP: Right. This was the first time there was big money in big agriculture. And so people with enough capital to hire labor and buy equipment took land



period was writing about family relations because the kinship relations were being significantly altered.

NFC: What changing was them?

RP: For one thing land enclosure, which entails a restructuring of class. This was also the period when England's empire was established, when it took India and Canada, and maintained standing army for practically the whole second half of the eighteenth century. That's what made agribusiness. A standing army required food, as well as uniforms and transportation.

This was the beginning of industrialization, mechanized spinning and weaving, when the first fortunes were being made in manufacturing. Class and gender roles were being significantly restructured and so was the psycho-

logical meaning of family.

NFC: From what to what?

RP: Take the attitudes towards women's sexuality and maternity. At the beginning of the eighteenth century, women were still considered sexual creatures, lusty, and interested, as they had been in the Renaissance and earlier. By the end of the eighteenth century what we think of as Victorian attitudes were already in place, and the mark of a good woman was to be asexual and not interested in physical relationships. And similarly, although motherhood obviously is eternal-I mean it is the oldest profession-the end of the eighteenth century saw similar Victorian attitudes about motherhood-maternal self-sacrifice, endless patience, kindness, all that stuff that modern women often feel burdened with. So the notion of an ideal mother appears concurrently with the desexualization of women. My most recent article is about the reversal of those attitudes and their interrelationship. That's saying it much too simply and reductively, but it's clear in reading the literature of the period that those were the terms of debate.



vation energy for many of the conservation movements in America often comes from hunters and fishermen who want to maintain wilderness areas for sport. That's a different kind of group and a different kind of emphasis than Save The Whales. Another connection is the gendering of nature itself. There are some eco-feminists who draw parallels between the domination of women and the domination of nature, between the attitudes which appropriate to individuals the resources, including the reproductive resources, either of women or of the natural world.

centuries and put it to production. There's a big debate in the historical literature about whether that was progressive and ultimately good or regressive and ultimately bad. It does signal an attitude about owning land and doing whatever you want to it, not being responsible for keeping it fertile or maintaining or passing it on to other generations. It's the short-term, getwhat-you-can attitude that was consolidated in the second half of the eighteenth century.

NFC: Sales sees that idea of what one can do to nature related to the Western myths of origin where man is born into and thrown out of Paradise into a world of sorrow. He compares that with Indian myths of origin where people emerge from a world of sorrow into Paradise.

RP: I think that's a fascinating framework for cultural comparison.

NFC: Your field is the eighteenthcentury novel.

women were

quite ambivalent. The white woman who adored her mother came from an all-female household. Hermother had several daughters by different men but she had never married, and was the sole support of her family. That was true of the black women as well.

We theorized, on the basis of what the ambivalent students were saying, that their ambivalence was due to the message they got from their mothers about accommodating to male domination within a family setting. The women whose mothers did not have to accommodate to male authority were the ones who unambivalently respected their mothers. They understood that their mothers worked very hard to put bread on the table and to raise them and they respected and admired them. Those women who watched their mothers accommodating to male power felt ambivalent about their

mathematics, natural sciences, and engineering. Our library, the Women's Studies Research Room, has a complete collection of monographs on subjects such as women and math, women and technology, women and engineering, women and science, collected systematically by Marlene Manoff in the Humanities Library. With the aid of UROP students, we've also put together bibliographies on women and mathematics, reproductive technologies, gender and science, and of course bibliographies from our conference on women and computers in 1984.

NFC: Your next conference is on gender and environment.

RP: Yes, for May '92. We're waiting to hear about funding but our premise is the pragmatic recognition that the people most directly affected by the degraded environment and who interact most directly with it are women.

RP: Right now I am

working on the late eighteenth-century period in England, when the notion that common land which was lying fallow and which had been commonly available to people for planting small gardens, grazing cattle, and keeping pigs, could now be appropriated by large land-owners for capitalized production and big-business agriculture. That's when the process of enclosure, which had been going on for centuries, accelerated, culminating in new enclosure acts. A quarter of England's arable land was enclosed in the eighteenth century. Both the land and any animals living on it were commodified for the sole use of single individuals. I do believe that some of our American attitudes about the ownership of land and the notion that you can do anything you want to the land you happen to own comes from the attitudes born in that period.

RP: All my work has been about the relation of gender to the production of art, and the period I know most about is eighteenth-century England. My first book was on the early part of the century, and the book that I'm now writing is on the second half.

NFC: Particularly as it reflects the restructuring of the family?

RP: Yes. The working title for my new book is Novel Relations: A Social History of the Novel and the Family in England, 1750 to 1810. In that period about 1,500 novels were published in England. Very few critics have tried to map that production. The same authors are repeatedly studied: Sterne, Smollett, Fielding, and Richardson. But of these 1,500 novels, maybe 1,000 were written by women. I think nobody has studied the fiction of that period because they weren't at all interested in women authors who were automatically relegated to a Grade B status.

NFC: Did the work of your parents influence your work? Your father was an anthropologist.

RP: Yes, so this kind of vocabulary and way of thinking crossculturally feels quite natural.

NFC: And your mother?

RP: My mother is a biologist who turned psychologist. My parents had a standing argument all during my growing-up years about nature-nurture. My mother believed that most things were inborn and my father believed that everything was environment. And I guess I am uncomfortable with either view when it denies or dismisses the other.

Photo by Donna Coveney