

SHOES, BOTTLES, PIPES **Building 20 Dig Yields Artifacts**

Thirty undergraduates in Intro-duction to Archaeology (21.503) have been gaining firsthand experience in archaeological method by excavating two sites behind MIT's venerable Building 20.

This year's dig was inspired by a series of intriguing items-fish skeletons, cow and cat bone, 19th century glass bottles, plates, nails, clay pipes, and shoe leather-unearthed by 21.503 students last year from the backdirt of the biology building excavations. Course instructors selected the Building 20 site on the advice of physical plant staff who, based on their extensive experience with campus digs, knew precisely where and at what depth artifacts tend to appear.

During February and March, most students carried out laboratory. analyses of artifacts recovered in 1992. A small contingent researched the history of the MIT site. The aim of the laboratory projects was to identify methods used to manufacure bottles, nails, ceramics and other artifacts. Students approached the problem with characteristic ingenuity.

A shoe enthusiast found the oldest shoemaker in Cambridge, took him a selection of soles and the two determined how the shoes had been made

Various materials science students studied their artifacts (among them iron nails and horseshoes) in departmental laboratories, identifying fabrication methods through artifact microstructure using standard (continued on page 5)



LITTLE DIG—Digging away, carefully, by Building 20, are members of the Introduction to Archeology class (21.503). Photo by Donna Coveney

OPEN TO ALL Dibner Colloquium to Focus on 'German Bomb'

The Dibner Institute will present a colloquium on Friday, May 7, focusing on the debate concerning the German nuclear program during the Second World War and whether German scientists had the ability to build a bomb.

The two principal speakers will be Professor David C. Cassidy of Hofstra University and Insititute Professor Emeritus Victor F. Weisskopf of MIT.

Professor Cassidy is the author of a biography of Werner Heisenberg entitled Uncertainty: the Life and Science of Werner Heisenberg, for

REBEK, RIVEST, PABO

which he won the American Institute of Physics Science Writing Award in Physics and Astronomy. It provides a new look at the question of why the Germans failed to build an atomic bomb.

The release earlier this year of the Farm Hall transcripts rekindled the issue. These are transcripts of wire recordings that were secretly made of the conversations among 10 leading German nuclear scientists-including Heisenberg and Otto Hahn, one of the discoverers of nuclear fission-who (continued on page 5)

American Academy **Elects Three as Fellows**

hree MIT faculty members were elected as Fellows of the American Academy of Arts and Sciences at its annual meeting last month.

The new MIT fellows are: Dr. Julius Rebek Jr., Camille Dreyfus Professor of Chemistry; Ronald L. Rivest, Edwin S. Webster Professor of Electrical Engineering and Computer Science, and Dr. Carl O. Pabo, Professor of Biophysics and Structural Biology and Howard Hughes Medical Institute Investigator

In addition to Professor Rebek, seven other alumni also were elected.

They are: Dr. Charles P. Casey, professor of chemistry at the University of Wisconsin at Madison; Charles M. Correa of Correa Associates in Bombay, India; John T. Groves, professor of chemistry at Princeton University: Amos E. Joel Jr., of AT&T International, Inc.; Dr. Tobin J. Marks, professor of chemistry at Northwestern University; Dr. Stuart H. Orkin, professor of pediatrics at Children's Hospital in Boston, and Dr. Jean M. Tirole, visiting professor of economics at MIT from the University of Toulouse, France.

(continued on page 3)

'HARD CHOICES'

Pharmaceutical Symposium to Hear Tsongas

By Kathleen M. Rowe News Office

Former US Senator Paul Tsongas will be the keynote speaker at a May 6-7 international symposium, Economics of Pharmaceuticals: A Global Perspective, sponsored by the Industrial Liaison Program.

"Both as a Senator representing Massachusetts and in running for President of the United States, Tsongas pursued America's need to make hard choices to continue to be a

great country tomorrow," said Dr. Stan Finkelstein, senior lecturer on health policy and management, and executive director of the Program on the Pharmaceutical Industry. "We look forward to hearing his perspective on 'Health Care Reform in the 90s.'"

MIT's upcoming symposium will examine differences in costs, access and the use of pharmaceuticals in health delivery systems, focusing on European, Asian and North American systems. Alternative systems of pricing and reimbursement will be discussed as they relate to innovative pharmaceutical development.

"The key to the pharmaceutical industry's viability and ability to develop innovative drugs will lie in how it responds to change," said Dr. Charles L. Cooney, professor of biochemical engineering and co-director of the Program on the Pharmaceutical Industry. "The industry is undergoing substantial change: pressure to constrain prices, increasing sales to large buying groups, opportunities for new therapeutic approaches from an understanding of the molecular basis of disease, and the need for efficient manufacturing. In addition, companies that don't serve at least two of the three major markets-Europe, US, Japan-may be shortly squeezed out."

Thomas J. Allen, Gordon Y Billard Fund Professor of Management and co-director of the Program on the Pharmaceutical Industry, will co-chair the symposium along with Professor Cooney and Dr. Finkelstein.

Conference speakers will include: (continued on page 5)

INBRIEF

CPR TRAINING

There are openings in each of two upcoming Family CPR programs, sponsored by the MIT Health Education Service. The six-hour classes offer American Heart Association Level B certification in cardiopulmonary resuscitation for adults, infants and children. Session I will meet Fridays, May 7 and 14 from 8:30-11:30am; attendance is required both days. Session II is scheduled for Saturday, May 8 from 9am-3:30pm. The programs will be held in the MIT Medical Department; the

JUNE EVENT

Federal Arts Funding Conference Announced

By Mary Haller Office of the Arts

The MIT Office of the Arts will present The Public Patron: Drafting a Mandate for a Federal Arts Agency, a national conference to examine the roles and responsibilities of a federal arts agency in the United States today.

The objective of the conference, to be held June 18-19 at MIT, is to encourage critical debate and develop innovative positions on issues to be taken up when Congress convenes hearings on the reauthorization of the National Endowment for the Arts, scheduled for this summer.

The conference will feature keynote addresses by Senator Edward Kennedy and author and Time Magazine art critic Robert Hughes on the evening of Friday, June 18. Senator Kennedy (D-MA) is Chairman of the Senate Committee on Labor and Human Resources, which will oversee the upcoming NEA reauthorization hearings. Robert Hughes is the best-selling author of The Fatal Shore, Barcelona, and The Shock of the New. His most recent book, The Culture of Complaint, critique of American politics and culture, has received enthusiastic reviews from The New York Times and The New Yorker.

On Saturday, June 19, two panels

composed of artists, academics, public officials and private citizens will address the fundamental issues of creative expression and education in the arts. Confirmed panelists include Robert Adams, secretary of the Smithsonian Institution; Frank Hodsoll, former chairman of the National Endowment for the Arts: and Michael Morgan, assistant conductor of the Chicago Symphony Orchestra. Moderators will be Ellen T. Harris, Associate Provost for the Arts at MIT; and Katy Kline, director of MIT's List Visual Arts Center.

The conference will consider such issues as the distribution of funding between individual artists and cultural organizations, the tension between free

expression and religious and patriotic beliefs, the initiative to develop arts curricula for primary and secondary education, and the relative position of the federal government in partnership with corporate and private philanthropic support for the arts.

With a new administration in Washington and the imminent nomination of a chairman to lead the NEA, MIT believes that the moment warrants a rigorous and high-level examination of the federal government's complex role as a patron of the arts," said Mark Palmgren, director of the Council for the Arts at MIT and organizer of the conference. "By stimulating construc-(continued on page 5)

fee is \$35 per participant. For information or to register call x3-1316.

ADDENDUM

In last week's Tech Talk article on the Haystack Observatory, the name of a contributing staff member was inadvertently omitted. David Breslau, a project mechanical technician at the Center for Space Research (CSR), suggested the design of the polarizer used in a recent experiment to explore the structure of faint quasars. Mr. Breslau worked closely with scientists at Haystack to eliminate problems of earlier prototypes in the final design. The actual construction of the polarizer took place at the CSR computer-aided using manufacturing (CAM) equipment.

MAY 5, 1993

Student Notices

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

ANNOUNCEMENTS

- Booksale**-May 6: Sponsored by the MIT Libraries, featuring books on art, architec-ture, and urban planning. 10-3pm, Rotch Library. Proceeds benefit the MIT Libraries' Preservation Fund.
- Mother's Day Brunch**—May 9: MIT Faculty Club, 11:30am-2pm. Adults: \$19.95; Children under 12: \$6.95; under 6: guests of the Club. Reservations required, call x3-2111.
- Afternoon Tea in the Drawing Room**-May 10: Debut of several new additions to the Tech Group line of insignia products, open to buyers of official Institute gifts. Contact Paul DeFanti at the MIT Museum Shop, x8-9118 for an invitation. Sponsored by the MIT Museum, 3-5pm, at the Museum.
- UA Finance Board Deadline**-May 20: Deadline for turning in this semester's allocation reimbursements. Call or stop by W20-401, x3-3680.
- Tutorial Services Room**-Free tutoring on any subject 7 days a week for all MIT students. Qualified tutors anytime/anyday. 24hour line: x3-8406. Rm 12-124. Hours of operations: 1pm-11pm.
- A Safe Ride**-Call 253-2997 for a free ride within MIT boundaries. Service operates Sun Wed 6pm-3am; Thurs-Sat 6pm-4am. Guide to shuttle stops available.
- Talbot House. MIT's farmhouse in Vermont is available for the last three weeks of May and some time in June. Reservations for groups of 15-27 for these dates are accepted on a firstcome, first-served basis. Talbot House can be a great place for groups of families to have mini-vacations together, whether for 3 days or a week! Consider reserving time for the summer. Contact Sarah at x3-4158, Rm W20-549, or <stom@mit>.

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.

- The Furniture Exchange at MIT**-New hours and location: Tues/Wed/Thu, 10am-4pm, Bldg WW15, 350 Brookline St
- Language Conversation Exchange**-Internationals and Americans are invited to participate in this program which matches persons interested in practicing a language and getting to know someone from another country. Presently, there is a need for English partners to fill continued requests of internationals wanting to practice and improve their English. Native Russian, German, Swedish, Arabic, Swahili, Thai and espe cially Italian speakers also needed for English speakers wanting to practice these languages Sponsored by the Wives' Group, call x3-1614 for more information.

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.
- Baptist Student Fellowship at MIT**-Meet for supper on Tuesdays at 5:15pm at 312 Memorial Drive, then move to the chapel cross the street for worship at 6pm. Call x3-2328 for more information.
- Morning Bible Studies**-Fri, 7:30-8:30am, L 217. Ed Bayliss, x3456 Linc.
- Tech Catholic Community**-Regular weekday mass Tues & Thurs 5:05pm, Friday 12:05pm, Saturday 5pm, Sunday 10am & 5pm. Call x3-2981.
- Graduate Christian Fellowship**-We invite you to join us. Open to believers and seekers, GCF is a group of graduate students, faculty, and staff who desire to know God better and reflect the love and presence of Jesus Christ. Weekly meetings in Student Center, DR 1&2, Thursdays at 6pm. We also have Bible studies and a Faith & Technology Roundtable. Info: Andrew Parris x3-2319.
- Christian Science Organization**-Meetings are Thursdays at 7:30pm in the Chapel. We'll share thoughts about God, hear testimon Christian healing and read from the Bible. All are welcome! Call x3-8797 or Inorford@eagle.mit.edu> for further information
- MIT Hillel*-May 5, 12: Israeli Folk Dancing, 7:30pm, Lobby 13. May 7: Conservative and Orthodox Svcs, 5:30pm, Walker Rm 50-010. Shabbat Dinner, 6:30pm, Walker Blue Rm. Senior Awards and Dessert Reception, 9pm, Ashdown West Dining Rm. May 9: 6th an nual Mother's Day Barbeque & Volleyball challenge, 12pm, BBQ pit. May 14: Conser-

MIT Korean Baptist Student Koinonia (KBSK)**-Friday Night Bible Study and Fel-

010. More info: x3-2982

lowship 7-8:30pm, Private Dining Room #3, 3rd floor of Student Center. Everyone is welcome, refreshments provided. For more information contact Chris Pak x3-9342 or 876-8594.

vative and Orthodox Svcs, 5:30pm, Walker

Rm 50-010. Shabbat Dinner, Kosher Kitchen.

May 15: Orthodox Services, 9am, Rm 50-

- 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.
- Lincoln Laboratory Noon Bible Studies*-Tues & Thurs, Kiln Brook III, Rm 239. Annie Lescard, x2899 Linc.
- 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.
- MIT Orthodox Christian Fellowship**-Meets every Wednesday at 5:30pm in Private Dining Rm #1 in the Student Ctr for dinner/ fellowship/discussion followed by Vespers (evening prayer) in the MIT Chapel. Open to Eastern Orthodox Christians and those interested in learning about traditional Christian Faith. Info: Mike Decerbo, Dorm x5-7569.
- MIT Vedanta Society*-Meditation and discourse on the Bhagavad Gita with Swam Sarvagatananda, MIT Religious Counselor and Head, Ramakrishna Vedanta Society of Boston, every Friday at 5:15pm in the MIT Chapel.

INTERNATIONAL

- MIT Language Conversation Exchange**-This service 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 for more information.
- MIT-Japan Program Orientation**-May 5: Go to Japan for a year of fun, excitement and professional advancement, all expenses paid, with the MIT Japan Program. This is a chance for MIT undergraduates and graduate students in science, technology, managemen and architecture to meet the Managing Direc-tor, staff members and some former interns of the Program, to hear about becoming an intern in a Japanese company or university. Details and requirements of the Program will be explained, and there will be an opportunity for informal discussions. Japanese refreshments served. 5-6:30pm, Mezzanine Lounge, Student Center. More info: x3-2839 or x3-8737.

STUDENT JOBS

There are more job listings available at the Stu-dent Employment Office, Rm 5-119. The Student Employment Office has many "one time only" jobs. Many students find these jobs a good way to earn money fast.

- On Campus, Non-Technical, Summer. Center For Material Science and Engineering seeks MIT undergrads who are members of underrepresented minority groups to supervise 7th & 8th grade students in a one-week science and engineering day camp. August 19-27, 8am-4pm, and 4 sessions during next school year. Requires enthusiasm and good interpersonal skills. \$8/hr. Contact Susan Rosevear x8-6477.
- On Campus, Technical, Summer. Center for Biological and Computational Learning (CBCL) has two openings for summer RA project in supercomputing. Position involves use of a supercomputer (CM-5) in connection with on-going research projects in object recognition and learning. Salary & hours are negotiable. Programming experience on CM is a plus. Send resumes to Mary Pat Fitzgerald, Rm E25-201, x3-0551.
- Off Campus, Technical, Summer. Programmers needed for database design and management for new company in Wellesley, MA which

Free Skin Cancer Screening

The MIT Medical Department Dermatology Service, assisted by the Health Education Service, will offer its annual skin cancer screening program from 9am-1pm, Mondays, May 17 and May 24.

The screening, free and open to all in the MIT community, offers a routine, whole-body skin examination for those who have not regularly or recently had such a check. Individuals

UROP

The UROP office invites MIT and Wellesley students to join with faculty members to pursue research projects of mutual appeal. For detailed information on procedures, please read the par-ticipation section of the UROP 1992-1993 Directory, available in the Academic Affairs Offices, 7-104 and 20B-140. We are no longer accepting proposals for direct UROP funding. Please seek alternative funding methods.

Faculty supervisors wishing to have projects listed may send brief descriptions to 20B-140, call x3-7306, or email to <urop@athena>.

- Perception of Face and Emotion Cues. UROP student needed to work on the studies of perception of faces and perception of emotion cues from the face and voice. The student will help design and run the studies at both MIT and Massachusetts General Hospital, where s/he will assist in testing patients with focal neurological damage. The position is full time. Please contact by May 1. Faculty supervisor: Dr. Nancy Etcoff, Rm E10-237A, x3-1960.
- The Internationalization of the European Business Elite. There are a few companies that could be more "German" than Volkswagon, the leading European car maker, and a few firms more "French" than L'Oreal, the world's largest cosmetics group. So, how come that the new head of Volkswagon is an Austrian, Ferdinand Piech, its deputy chairman a Frenchman, Daniel Goedevert, and its production & purchasing vice-president, a Spaniard, Ignacio Lopez? Why has Lindsay Owen-Jones, a Welshman, been the chairman and CEO of L'Oreal for several years now? More generally, is there an emerging European business elite as opposed to separate national elites? If so, who are the members of this elite? And what are the implications? I am planning to explore these important issues over the next few months. I would like to get an undergraduate student involved in the following aspects of the project: 1. Literature review, 2. Collection of data on the internationalization of top management in Europe. 3. Rudimen-tary data analysis. 4. I would encourage the student to use part of the evidence collected for this project to write a thesis. Most of the research assistance will take place at the MIT libraries using data bases such as Nexis, Predicast Europe, ABI Inform, Europe's Larg-est Companies, Who's Who in European Business, and Moody's International Manual. Faculty Supervisor: Prof. Mauro F. Guillen, Rm E52-551, x3-4417, <guillen@mit.edu>.
- C Programmers and Microprocessor-based Controller Designer. A Fuzzy Logic Analysis package is developing in Human-Machine Systems Laboratory. We need UROP students in summer: 1. C programmers. Experience in C is necessary. Knowledge of C++ and Microsoft Windows programming a plus. 2. Microprocessor-based or DSP-based fuzzy controller Designer. Previous experience on any Microprocessor or DSP chips is desirable. Faculty supervisor: Prof. Thomas Sheridan, Rm 3-346, x3-2228. Contact: Jie Ren, Rm 3-347, x3-2256, <ren@athena>.
- Fabrication of High Temperature Couette Rheometer. We have ordered a high temperature (1700 Celsius) laboratory furnace to measure the flow properties of high tempera-ture materials. The furnace will arrive in June, and we require assistance with the design, fabrication, and assembly of the test system. We are looking for two undergraduates with experience in both mechanical design and machining and a willingness to apply it for a very practical assembly project. Faculty su-

who, at last year's screening, were advised to have atypical areas of the skin monitored should schedule routine followup appointments with their dermatology providers, because the rapid screening process does not allow the time necessary for treatment.

Appointments are necessary and can be scheduled by calling the Health Education Service at x3-1316.

Digital Mammography: Macintosh Program-

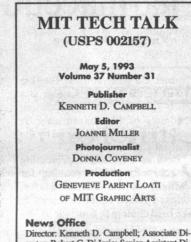
ming. A scanning parallel- plate drift cham-ber is being applied to the development of a multi-channel digital mammography prototype. The experimental setup includes a Macintosh II/cx with a date acquisition and control interface board. The project involves programming the Macintosh using LabVIEW, an icon-based graphical programming lan-guage. LabVIEW will be used to control, monitor and acquire experimental data through the interface board. Once the data are ac quired they will be displayed both in graphical format and in terms of gray scale and color images. Faculty supervisor: Dr. Richard C. Lanza, Rm NW13-219, x3-2399. Contact: Dr. Douglas J. Wagenaar, Brigham & Women's Hospital, Dept. of Radiology, 732-6329 or 735-5251.

Digital Mammography: Experimental Physics. A scanning parallel-plate drift chamber is being applied to the development of a multichannel digital mammography prototype. The project involves the assembly of the chamber under high-purity conditions, the use of a high-purity gas handling/vacuum system to pump out and fill the chamber, the implementation of a heat- activated getter purifier, and the alignment of collimators and electrodes. Faculty su-pervisor: Dr. Richard C. Lanza, Rm NW13-219, x3-2399. Contact: Dr. Douglas J. Wagenaar, Brigham & Women's Hospital, Dept. of Radiol-ogy, 732-6329 or 735-5251.

Frequent schedule updates now appear on TechInfo. For more information about cable at MIT, call Randy Winchester at x3-7431, Room 9-050. e-mail: randy@mit.edu; tvnessages@mit.edu, x3-9383, E19-722E.

- May 5-6: Channel 10: Physics 8.02 Help Session #12 with Prof Walter Lewin.
- May 7: Channel 8: 9am-1993 William L Abramowitz Lecture by novelist Isabel Allende, delivered at Kresge Auditorium March 15, 1993. Lecture is followed by an interview with Ms. Allende and selections of her work read by Vivian DeZengotita '94 and Javier Segovia '93. This program will repeat until Tuesday, May 11, 9am. Channel 10: Phys-ics 8.02 Help Session #12 with Prof Walter Lewin. This program will repeat until 5pm.

May 8-11: Channel 8: 1993 William L. Abramowitz Lecture by novelist Isabel Allende.



Crimewatch

The following incidents were reported to the MIT Campus Police Department between April 23-29:

- Apr 23: Bldg 20: camcorder stolen, \$913; Bldg 10: scissor jack stolen, \$200; Bldg 66: bike stolen, \$285; Killian Court: bike stolen, \$260; Student Center: assist to student.
- Apr 24: Tang Hall: noise complaint; Bldg 3: computer stolen, \$3,480; Bldg 7: suspicious person; two males arrested after climbing the wall at New House and entering the courtyard, where a student confronted them. One of the individuals threatened the student with a knife before fleeing the area. The victim and witnesses provided MIT Police with a description and suspects were apprehended by Campus Police and placed under arrest for assault by means of a dangerous weapon and other related charges.
- Apr 25: Male student was the victim of an armed robbery on Memorial Drive at 12:30am in the area of Building 1. The suspect told the victim to "empty your pockets and give me your wallet." The wallet contained

\$10. The suspect fled, and the victim utilized the new emergency telephone located on the cornor of Mass. Ave and Memorial Dr. East Garage: '91 Toyota, attempted larceny; Burton: bike stolen, \$255; Student Center: man exposed himself while sitting and casually conversing with a woman.

Apr 26: Bldg E51: bike stolen, \$250; Bldg NW21: report of persons illegally dumping trash; Bldg 9: larceny of cash, \$165; Bldg 66: backpack stolen, \$100; Bldg 36: wallet stolen, \$17; Bldg 3: suspicious activity; Bldg 13: precious metal, \$2,000; Bldg 14N: vandalism; assist MIT community member with obtaining a restraing order; Briggs Field: wallet stolen, \$10; DuPont: wallet, \$10; Student Center: student problem.

Apr 27: Windsor St. Lot: Jeep broken into; Bexley: "peeping tom."

- Apr 28: Bldg 1: vandalism; Bldg 14: graffiti; Bldg NW21: coat stolen, \$60; Bldg 4: lab equipment stolen, \$1,676; Boathouse: briefcase stolen, \$600; Student Center: wallet, \$30; Bldg 1: keyboard, \$400; Bldg 20: \$50 cash; Student Center Plaza: bike locked to itself stolen, \$250; Bldg 66: chair stolen, \$88.
- Apr 29: Westgate: bike stolen, \$120; Bldg E38: cash, \$169; Boathouse: keys and credit cards stolen; Bldg NW12: bike stolen, \$170; Walker: small fire in Kosher Kitchen, extinguished with a mop, no further damage; Student Center: student problem.

develops front-end database applications for the automotive industry. Experience with PC database management systems is necessary Flexible hours (can be full time). Salary negotiable. Contact Kelley Murray or Jimmy Chow, 235-8841/225-8465.

VOLUNTEERS

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

Tutoring Plus. Volunteers are needed as tutors and as staff members. One-on-one tutors are needed for elementary students, and tutors are also needed for the Evening Homework Center. Contact: Marsha Wise at 547-7670.

Cambridgeport Spring Clean-Up. Saturday, May 8: Volunteers are needed to clean up Cambridgeport starting at 9:30am. Coffee and muffins will be served, and work gloves and trash bags will be provided for all volunteers. Contact: Peggy Lynch at 876-1501.

Project Bread: Walk for Hunger Follow-up. Monday, May 3 to Friday, May 7: Volunteers are needed to collate and batch registration forms collected from the walk. Contact: Amy Christensen at 723-5000.

rvisor: Prof. Stuart Brown, Rm 8-106, x3-2100. Contact: Prof. Brown or Pratyush Kumar, Rm 8-103, x3-3225.

Circuit Design, Fabrication and Documentation. Our group is working with micromechanical devices to measure very small scale material properties. Part of this effort involves fairly sophisticated analog circuitry to excite, sense, and control the motion of these devices. We are looking for a student familiar with analog circuits and with experience in analog circuit construction to replicate our current control systems. We also intend to implement some improvements and document their current design. Faculty supervisor: Prof. Stuart Brown, Rm 8-106, x3-2100. Contact: Prof. Brown or Gary Povirk, Rm 8-103, x3-3225.

Biomedical Engineering. A UROP student is sought to conduct research in biomedical engineering and cardiac physiology. The candidate is expected to participate in an ongoing project involving measurement, analysis and visualization of cardiac electrical image in normal and abnormal human subjects. Interest in interdisciplinary research between engineering and biomedicine essential. Faculty supervisor: Prof. Richard J. Cohen, Rm E25-330D, x3-7430. Contact: Dr. Ben He, Rm E25-335, x8-7088, <bin_he@mit.edu>.

rector: Robert C. Di Iorio; Senior Assistant Director: Charles H. Ball; Assistant Directors: Donna Coveney, Joanne Miller, Kathleen M. Rowe, Elizabeth A. Thomson; Administrative Assis tant: Myles Crowley; Design/Editorial Ass Lisa Damtoft; Receptionist: Chandra Wilds.

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TechInfo.



MAY 5, 1993

AERO & ASTRO

Hastings to Supervise **Departmental Research**

Professor Daniel E. Hastings, an in-ternational expert on plasma phys-



ics, space power and space propulsion, has been appointed associate department head for research, Professor Earll M. Murman, head of the Department of Aeronautics and Astronautics, has announced.

Hastings

"The Department of Aeronautics and Astronautics is a sizable research enterprise, presently the second largest unit within the School of Engineering," Professor Murman said. "It has an annual volume of \$8 million to \$10 million per year in funded projects with over 200 faculty, students, and staff participants organized into 10 laboratories and a grouping of individual projects.

"Individual principal investigators,

primarily faculty members, are invested with the responsibility for conceiving, proposing, executing and managing this research. Nevertheless, leadership is needed to enhance, stimulate, facilitate, and administrate the department research enterprise. These leadership duties will be the responsibility of the associate department head for research.'

Professor Hastings, a recognized authority on spacecraft-environment interactions, received his BA from Oxford University (1976) and his SM (1978) and PhD (1980) from MIT.

After working at Physical Sciences, Inc., and Oak Ridge National Laboratory, he joined the MIT faculty in 1985 and was promoted to full professor this year. He has served as director of the Massachusetts Space Grant Program, director of the Departmental Space Power and Propulsion Laboratory, and is presently director of the Computational Aerospace Sciences Laboratory in aeronautics and astronautics.



THE WINNER: CSF-Nearly \$660 has been raised for the Community Service Fund by three bake sales combined with raffles organized by Laboratory for Computer Science staffers Lori Avirett-MacKenzie, administrative secretary, and Lisa Anne Taylor, senior secretary, (left to right, at right). Enjoying the selection of "gooey, yummy things," to use the language of one of the event's promotional flyers, are Neena Lyall, Joanne M. Talbot (winner of lunch at Rebecca's) and Jay Hersh (winner of an Au Bon Pain gift certificate). All are with LCS. The Community Service Fund (CSF) is the main vehicle through which members of the MIT community support others who volunteer with Cambridge agencies. Photo by John Cook, RLE

MIT SEA GRANT **Krumholz** Appointed **Doherty Professor**

in

been awarded the

1993 Doherty Pro-

Ocean Utilization

from the MIT Sea

Grant College

program selects

one or two junior

faculty members

Every year, the

fessorship

Program.

r. Lee R. Krumholz, assistant professor of civil and environmental engineering, has



Krumholz

for an award of \$25,000 per year for two to three years.

Dr. Krumholz's research interest is in microbial degradation of pollutants. Under the Doherty fellowship, his research will be directed towards developing novel, microbial-based technology for remediation of PCBs (polychlorinated biphenyls) and other

chemically stable environmental pollutants in marine ecosystems. PCBs are a major, widespread environmental threat-both extremely stable and extremely toxic to fish and to humans who consume contaminated seafood.

The Doherty Professorship, endowed by the Henry L. and Grace Doherty Charitable Foundation, encourages promising, non-tenured professors to undertake marine-related research that will further innovative uses of the ocean's resources. The area of research is unrestricted and any aspect of marine use and/or management may be addressed, whether social, political, environmental or technological.

Professor Robert Fricke of ocean engineering was named Doherty Professor in 1992 in order to further his work on using ocean acoustics to explore the underside of sea ice.

11TH GROUP

Eight Are Named Knight Fellows

N ewspaper, television, and maga-zine journalists from across the country, who cover issues in science, medicine, technology, and the environment, have been selected as Knight Science Journalism Fellows at MIT for the 1993-94 academic year.

The eight Americans selected will be part of the 11th group of Fellows in MIT's program for visiting science journalists, inaugurated in 1983 as the Vannevar Bush Fellowships. They will be joined by journalists from other countries, whose names will be announced later.

Those selected are:

Douglas Birch, 41, science reporter for The Sun in Baltimore, a Times Mirror newspaper.

Elizabeth Corcoran, 30, of New York, until recently a member of the board of editors of Scientific American, and winner of the 1993 Evert Clark Award for young science journalists.

Abe Dane, 31, science and technology editor of Popular Mechanics, a Hearst Corporation magazine in New York

Deborah Franklin, 36, senior staff writer for Health (formerly known as

Hippocrates), a Time Inc. magazine in San Francisco. Sherry J. Lassiter, 38, science television producer for Chedd-Angier Productions of Watertown, where she has most recently worked on the series, Scientific American Frontiers.

ence Journalism Fellowships, who will be on leave in 1993-94 to complete a biography of the scientist and photographic pioneer Edwin H. Land; Charles Petit, science reporter of the San Francisco Chronicle, a 1984-85 Fellow; Patricia Thomas, editor of the Harvard Health Letter, a 1986-87 Fellow; and John Wilkes, director of the science writing program of the University of California at Santa Cruz.

Nearly 120 journalists from more than 20 American states and a dozen foreign countries on six continents have been selected in the program's first 11 years. The journalists have come to MIT from such large US and overseas news organizations as Asahi Shimbun, Boston Globe, Capital Cities/ABC, Central Newspapers, Chronicle Publishing, Cowles Media, Deutsche Presse Agentur, Dow Jones, Gannett, Gruner

'PRIVATIZATION'

and Jahr (Bertelsmann), Hearst Newspapers, Knight Ridder, Mainichi Shimbun, McClatchy Newspapers, McGraw-Hill, Media General, New York Times Company, Nihon Keizai Shimbun, Pulitzer, Reuters, Scripps Howard, Time Inc., Times Mirror, The Washington Post, and Yomiuri Shimbun.

In 1993, for the fourth year in a row, a former Fellow received the prestigious AAAS-Westinghouse science writing prize. Paula H. Apsell, Executive producer of the NOVA series at WGBH-TV, Boston, shared the prize in Boston in February with producer Thomas Levenson for a one-hour documentary on the solar eclipse of 1991. Ms. Apsell gave the annual Sigma Xi lecture at MIT Tuesday evening, May 4, on the topic, "Selling Science to the American Public."

ABOARD DISCOVERY

Cameron to Discuss **Recent Shuttle Flight**

ol. Kenneth D. Cameron, com- in his room, was taken into space by mander of the April flight of the Space Shuttle Discovery, will speak at 3pm Tuesday, May 11, in Rm 34-101. He will also present a Norwegian flag to the parents and brother of the late Yngve K. Raustein, the MIT undergraduate from Norway who was killed by an assailant with a knife last September 18 while walking with a friend on Memorial Drive.

Colonel in remembrance of the slain student, who had a deep interest in space travel. The presentation will be made to Yngve's parents, Professor Elmer Raustein and Mrs. Inghild Raustein, and his brother, Dan-Jarle Raustein. Professor Earll M. Murman, head of the Department of Aeronautics and Astronautics, where Yngve was a student, asked Colonel Cameron to take the flag into space. Professor Murman, on behalf of MIT, invited the Raustein family to attend the lecture for the presentation. Scandanavian Airlines provided travel accommodations for the family who will stay at the Cambidge Marriott as guests of the hotel. Colonel Cameron, a Marine who holds the SB (1978) and SM (1979) in aeronautics and astronautics, will discuss the goals and accomplishments of the flight of Discovery, designated as mission STS-56.

Transportation Secretary To Speak Here Friday

The flag, which Mr. Raustein kept

Academy Election

(continued from page 1)

The election brings to 212 the number of active and emeriti faculty members who are Academy fellows. For more than two centuries, the Academy, located in Cambridge, has brought together the country's leading figures from universities, government, business and the creative arts to exchange ideas and to promote knowledge for the public interest.

An informal reception will follow the lecture and presentation.

Christine Mlot, 32, free lance science writer and editor, Milwaukee, WI, a contributor to the news sections of Science magazine.

Gregory A. Mock, 39, free lance environment writer, Ben Lomond, CA, a contributor to the 1993 Information Please Environmental Almanac.

David Stipp, 41, science, medicine, and environment reporter for the Boston bureau of The Wall Street Journal.

The members of the 1993 Selection Committee were David G. Ansley, medical reporter of the San Jose Mercury News, a 1985-86 Fellow who will serve as Acting Director of the program in 1993-94; John A. Carey, science and technology correspondent in the Washington, DC bureau of Business Week magazine; Victor K. McElheny, director of the Knight Sci-

Tames Kerasiotes, Massachusetts Secretary of Transportation and Construction, will speak at MIT Friday, May 7, on "Privatization: Challenges and Opportunities." The seminar, sponsored by the MIT Center for Transportation Studies, will be held at 12:45 in the Bush Room (10-105). It is free and open to the public.

As Secretary of Transportation, Kerasiotes is responsible for all state policies and initiatives concerning public, private and commercial transportation throughout Massachusetts. Within his scope are thousands of miles of state roads and bridges, the state's mass transit system, its airports, tunnels and railways. His current efforts include the depression of Boston's Central Artery and the construction of the Third Harbor Tunnel to Logan Airport-at \$6 billion, the largest public works project in North America.

Previously, as Commissioner of the Massachusetts Highway Department, Mr. Kerasiotes oversaw the launching of the nation's most sweeping roadwork privatization effort when the department hired private contractors to maintain all 400 miles of roadway in Essex County. He also transformed the former state Department of Public Works into a leaner agency through consolidation and privatization. As Secretary of Transportation and Construction, he plans to expand on these accomplishments.

Mr. Kerasiotes holds a BA from the State University of New York at New Paltz and a master's degree from Northeastern University, where he has lectured in politics. He previously served as Undersecretary of Transportation during the King Administration.

An optional luncheon will be offered from noon to 12:45-\$3 for students, \$6 for others-also in the Bush Room.

For more information call Jennifer Maxwell, x3-5321.

Classified Ads

Tech Talk ads are intended for personal and private transactions between members of the MIT community and are not available for commercial use. The Tech Talk staff reserves the right to edit ads and to reject those it deems inappropriate.

INSTRUCTIONS: Ads are limited to one (of about 30 words) per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Persons who have no extensions or who wish to list only their home telephones, must come in person to Rm 5-111 to present Institute identification. Ads using extensions may be sent via Institute mail. Ads are not accepted over the telephone. Faxes are not accepted.

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

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

Deadline is noon Friday before publication.

FOR SALE

New Sony compact disc player, single lecteur, digital studio, will hook up to almost any stereo, \$100. Call x3-8608.

- Dbx5-way ambiencespkrs w/15" woofer, 8" midrange, alum ribbon tweeter, \$249/pr; GE stereo VCR w/ Dolby, \$175; Hotpoint air cond, 4500 BTU, 14 c.f. fridge, \$125 ea. Subhendu, dorm x5-9897.
- Couch w/matching oversz chair, \$290/bst; tall wall unit, dk wd, \$120; wall unit, veneer, \$60; TV/ microwave stand, \$30; oak/glass coffee tbl, \$50; desk, \$100; car stereo, \$250. Call 776-6384.
- APL*PLUS/PC interpreter, \$250; sleeper sofa, Q-sz, \$100; pedestal-style work table, standard sz, \$25. Ross, Linc x4792 or (H) 965-2359.
- Moving sale: Q-sz couch & matching love seat, exc cond, 1 yr old, \$650; Magnavox 20" stereo color TV, 6 mos old, \$190; lrg Lshaped desk, \$50. Call 621-3518 bef 9pm.
- Evenflo car seat, \$35; A-frame futon bed/seat w/ mattress & cover, \$50. J. Blair, Draper x8-2843.
- Moving: twin bed w/matt, bxsprg, hdbd, \$60; cocktail tbl, glass top, \$85; 2 metal ktchn cabinets-shlvs, \$15 ea; 9x11 broadloom rug, cocoa, \$40; DR rd tbl & 4 chrs, glass top, antiq, b/o. Call 469-2378.
- 486 DX33 PC, 4MB RAM, 14" SVGA 28 dot pitch non-interlaced mntr, 51/4", 31/2" floppy drs, 125 MB HD, fax modern, printer, tons of software, will deliver & set up. Alex, Haystack x5632.
- US Open Golf Tournament tickets, Baltusrol, NJ, June 14-20. John, Draper x8-4265.
- Girl's 16" bike, \$10; 10-sp bike, \$50; lawnmower, \$50; rabbit fur coat (L's sz M), \$15; 25" RCA TV console, \$195. Mario Passanisi x8-4455 or 508-535-0270.
- Fuji M's 12-sp racing bike, \$95; child carrier for adult's bike w/helmet, \$30. John, x8-8186.
- Q-sz waterbed frame w/bkcase hdbd, converted to conventional matt from waterbed matt, matt spec made to fit frame, 6-drwr pedestal & liner, exc cond, \$400 firm. Call 617-899-6406 or 889-0159.

Several TIAA-CREF Presentations Planned

representative from TIAA-CREF A will make several presentations and answer questions about MIT's Tax-Deferred Annuity (TDA) Plan.

NEW OPTIONS

The presentations will focus on several features that have been added to the TIAA-CREF Tax-Deferred Annuity Plan, specifically a loan provision and a global stock investment account.

The presentations will be held on campus in the Bush Room, Room 10-105, tomorrow, (Thursday May 6) at 11am, 12:15, and 1:30pm and again on Monday, May 10, at 9:30 and 10:45 am, and noon. The presentations at Lincoln Laboratory will be held on Thursday, May 13, at 9:30 and 10:45am, noon, and 2 and 3:15pm in Rm A-166.

Under the TDA plan, MIT permits employees to "reduce" their salaries in accordance with federal tax regulations. The amount not paid as salary is sent instead to a tax-deferred annuity before federal taxes are withheld. Investment earnings on TDA accumulations compound on a tax-deferred basis for both federal and Massachusetts income tax purposes.

TIAA-CREF LOAN PROVISION

Tax-Deferred Annuity participants may now borrow as much as 45 percent of their combined TIAA and CREF TDA accumulations. The total of the participant's TDA loans cannot exceed \$50,000 and at least 110 percent of the outstanding loan balance must remain in TIAA, however. For example, a participant with \$50,000 accumulated in TIAA and CREF could borrow \$22,500 as long as \$24,750 remains in TIAA. The loan does not trigger federal or state income taxes or penalties. There is no charge or fee by either MIT or TIAA-CREF for TDA loans. Repayment terms are flexible, with quarterly payments of principal and interest pegged to a corporate bond index.

GLOBAL EQUITIES ACCOUNT

CREF now has an investment account with the stated objective of favorable long-term returns through capital appreciation and income, based on a broadly diversified portfolio that consists primarily of foreign and domestic common stocks. According to TIAA-CREF, participants nationwide have allocated more than \$280 million to this new account, since its introduction in July 1992. In addition to the Global Equities Account, CREF offers accounts based on professionally managed portfolios of stocks, bonds, money market instruments, and a "balanced" account that invests in companies which meet certain social choice criteria.

Some of the other changes to be mentioned at the presentations include changes in the rules for federal income tax withholding on TDA distributions resulting from legislation passed last summer, TIAA new interest-crediting rates, including 6.75 percent annual interest on current contributions, as well as TIAA's receipt of the highest possible ratings from each of the major

independent rating companies.

Enrollment forms and TIAA-CREF plan information will be available at the presentations. This information may also be obtained by calling BenTalk at x3-5000. (Press 2-1-5 when the recording begins.)

Team to Make AIDS Walk

his year, MIT people who want to participate in the eighth annual AIDS pledge walk-From All Walks of Life-may do so as part of an MIT

MIT will launch its second team effort for the AIDS pledge walk with a free concert by the Funky Girl Club and Dosmos Factor Friday, May 7, 11:30am-2pm on Kresge Oval.

The10km walk, is scheduled Sunday, June 6, to benefit the AIDS Action Committee and 34 other AIDS-service providers in the greater Boston area.

"The advantage of walking as a team is that all team contributions are matched by the Boston Foundation up to a total of \$50,000," according to Stephen Fairfield of the Office of Special Community Services, one of the coordinators of the MIT effort.

"Last year 57 members of the MIT community raised more than \$9,000 and finished among the top 20 teams," he said. "This year we hope to improve our performance. Our goal is \$12,000 and a place among the top 10 teams."

Pledge sheets and buttons will be available at the Friday concert and also Wednesday, May 12, in Lobby 10 where there will be a noontime showing of the 1992 From All Walks of Life video.

Materials are available from coordinators Lee Ridgway, Rm 11-303, x3-7727 <ridgway@mit.edu> and Sgt. Cheryl Vossmer, Rm W31-215, x3-9755 <crimbite@mit.edu>.

GALA EVENT Science Auction Set

The MIT Club of Boston will hold a Science Auction Gala on Saturday, May 22, beginning at 7:30pm at the Museum of Science as a benefit for the MIT Council on Primary and Secondary Education.

Most articles and services to be auctioned have an MIT connection such as a signed, limited edition of the Edgerton Sports Portfolio or a morning in the Edgerton lab for a project of the

- Cambridge, N: sublet, F to shr w/2 prof Fs, on bus to MIT, 12 min walk to Porter & Davis Sq, avail 7/ 1, poss before, option to renew, no smkg/pets, pref grad/prof, \$280/mo + utils. Amy x3-8233.
- Maine: island cottage in fishing village, suitable for 3-4 adults, ocean vw, fully equipped, hiking, birding, biking, wildflwrs, stores on isl, spect ferry ride, \$395/wk. Marie x3-3490 or 547-1311.
- Melrose: pretty 1BR in Victorian, 8 mi from MIT, nice resid nbrhd, 5 min to bus or train, sunny, prkg, cats OK, prof non-smkrs, avail 6/1, sec dep & refs, \$725 incl utils. Call x3-3834 or 662-9425.
- Somerville: nr Inman Sq, avail 6/1, 5 rms, 2+BR, lrg eat-in-ktchn w/microwave, hdwd flrs, laundry hookup, cellar storage, 1st & last mo rent & refs req, \$725 + utils. Sandy x3-9380 or 438-2025.
- Wellesley: 3BR, 2b, contemp. ranch, skylts & cathedral ceilings, w/w, den, woodstove, deck, garage, walk to commuter rail, must \$269,900. Call 964-1262 or 237-2254.
- Winchester: 3BR apt for rent on safe, quiet street, avail 6/1. \$850/mo

buyer's choice. Others are:

-A Space Station artifact. -An afternoon of sailing with America's Cup winner Bill Koch.

-A weekend's use of a Model A Ford. -A hot-air balloon ride.

There are also a variety of getaway weekends at New England hotels and inns and meal certificates for restaurants including Biba and Applebees.

The auction will be held in the West Wing of the Museum which will feature exhibits such as the six-legged robot Genghis II (from IS Robotics) and the top ten men and women in the history of science and technology. Jay Keyser's band will play throughout the evening and there will be champagne, hors d'oeuvres and desserts. The entire MIT community is welcome. Tickets are \$75/person and dress is listed as "creative black-tie."

A raffle is being held in conjunction with the Auction Gala. Prizes are a Swissair Chocolate Tour of Switzerland for two (valued at \$6,000); a Bose stereo system (valued at \$975); a pair of Boston Red Sox skybox seats (valued at \$250), and a Neuchatel Chocolatier basket of chocolates (valued at \$100).

Tickets are \$10 each (3 for \$25, 7 for \$50, 15 for \$100). They are available from the MIT Women's League. Rm 10-342; MITAC, Rm 20A Family Resource Center, Rm 4-144; Medical Department Pharmacy, Rm E23-196, and at the Lincoln Special Service Office, A-226.

Sports at MIT

VICTORIOUS WOMEN

Two MIT women's teams have qualified for national championships in their respective sports. The women's tennis team has qualified for the National Collegiate Athletic Association Division III National Championship Tournament for the first time in the history of the program. The Championship will be held May 11-17 at Carlton College in Northfield, MN. The Engineers compiled a 13-5 dual match record over the 1992-93 academic year. For the first time in 17 years, the women's sailing team has qualified for the Intercollegiate Yacht Racing Association National Championship which will be held Memorial Day weekend at St. Mary's College in Maryland. The Engineers finished fourth in the recently completed New England Championships which featured eight of the top 15 teams in the nation.

TENNIS

The MIT men's first doubles tennis team of senior Alan Walpole of Tauranga, New Zealand and Jay Muelhoefer, a junior from Brussels, Belgium, have finished the 1992-93 schedule with a perfect 14-0 record in Division III play. Walpole and Muelhoefer are the top ranked Division III doubles team in both New England and the nation.

LACROSSE

MIT senior lacrosse player Rob Silva of Golden, CO, recently broke the Institute record for goals in a career when he pumped in four goals in a contest with Clark University. Silva was tied with 1989 graduate Pat Nee with 102 career goals entering the game. With one game remaining in his career, Silva is five career points (goals and assists) shy of the MIT alltime career point total of 172 held by 1972 graduate Steven Cochi. Cochi set his standard in three seasons.

CREW

Women's crews from MIT performed very well in last weekend's New England Championships in Worcester. The second novice 8 finished second in the finals of its race trailing only Boston College. The varsity 8 won the petite finals by nearly two seconds over Trinity College, while the lightweight 8 finished third in its competition. In other crew news, senior Suzelle Tardif of Grand Isle, ME, and sophomores Amy Swanson, of Richfield, MN, and Sherry Hsiung of Emmaus, PA have been named

VEHICLES

1983 Honda V-45 Sabre VF750S, black, only 11K miles, new fork seals, f&r brakes, clutch, exh. carbs; always garaged, no winters, exc cond, \$1000. Call 666-1916.

1983 Chevy Blazer (sm sz), auto, a/c, V-6, almost all options, low mileage, well-maint, garaged, manuals & log, 2nd ownr, \$2800. Jim x3-2048 or 617-934-6782.

1988 Volvo 240GL sta wgn, blue, a/c, leather seats, exc cond, 1 ownr, \$8,900. David x3-4075 days or 617-547-0262 eves.

1989 Mazda 323, Merc. Tracer, htchbk, 3-door, well-maint, oil chgd every 2500 miles, fuel inj & standard 5-sp, 33 mpg, only 24K, only \$3500 or bst. Ting, dorm x5-9591.

HOUSING

Ashmont Hill: sunny 1890s Vict, on Red Ln. 3 1/2 BR. 2 full baths, darkrm, porch/study, 2 wdstves, fplc, hdwdfl, fenced yd w/garden, attic, rent \$970/moor buy \$129K or bst. Call x3-0394 or 489-2028

utils. Susan x3-4248 or 721-0642 or 721-0437.

Winthrop: 6 rms, 3BR, w/w, d/d, w/d hookup, porch & backyd, off-st prkg, avail May 1, \$750 + utils. Call 1-334-2658.

WANTED

Retired couple, now living in FL, wd like to spend mid-July/mid-Aug in Grtr Boston area, will housesit for reasonable rent. Louis 617-396-9283 or 813-294-8170.

Used mountain bike wanted. Degaulle, dorm x5-9630 or <degaulle@mit.edu>.

Jazz vocalist seeks musicians to do gig at Killian Hall & more (piano, bass, drums). Helene x3-2828.

Small adult dog wanted for loving home. Paul x3-0516.

Wanted: furn 2BR apt w/prkg, Sept '93 - May '94 for visiting prof w/wife & sm child, pref. Camb, Somerville, Watertown. Prof. Hollingsworth 507-663-4412 or e-mail <wholling@carlton.edu>.

Drivers Needed

The food-salvage program at Walker Memorial's Morss Hall needs a driver on Wednesday evenings for the rest of the term to take left-over food from Walker to the CASPAR shelter on Albany Street. The food is available at about 7:30pm and the delivery process takes half-an-hour to 45 minutes.

If you can help out for the next three weeks, please call Meghan Bowser at 225-9380. She is the food-salvage director at Walker and says that she also will need drivers for Wednesdays, Thursdays and Fridays when the fall term begins.

to the New England Women's 8 (NEW 8) All-Conference Crew. In addition coach Mayrene Earle was named NEW 8 Coach of the Year for the second consecutive year.

FIELD HOCKEY

MIT field hockey players Carla Oshiro, a sophomore from Plainsboro, NJ, and first-year student Anne Torres of Baltimore, MD, have been selected to attend the College Futures Field Hockey Camp this summer. Oshiro and Torres are two of only 50 selections from throughout the country to attend the camp intended to improve the skills of elite level athletes and train those athletes for national competition.

TRACK AND FIELD

MIT freshman John Wallberg of Thief River Falls, MN, smashed the freshman hammer throw record he had set the previous week in Saturday's track victory over Springfield College. Wallberg threw the hammer 167'6" to establish the new mark. Double winners for the Engineers were Matt Robinson, a junior from Olympia Falls, MN, who won the 110 meter high hurdles and the pole vault; sophomore Andy Ugarov from Ventura, CA, who won the triple jump and high jump; and Mike Piepergerdes, a senior from Kansas City, MO, who won the 800 and 1,500 meters. The Engineers set or tied 28 personal records in the meet. In women's track, Agnieszka Reiss won the 3000 meter race at the WPI Invitational. Reiss, a sophomore from, Lexington, MA, was the only winner for the Engineers in the 14 team meet. **Roger F. Crosley**

Notes from the Lab

GROWING PAPER FROM BACTERIA

Cellulose produced by bacteria has distinctive advantages over more traditional sources, such as trees. For example, it can be synthesized directly into an extremely strong nonwoven "textile," and the physical properties of the resulting product can be "tailored" during its creation.

Such bacterial cellulose also has a number of applications. It can be used as a thickener for paints or inks, or in recipes as a low-calorie alternative to other ingredients. In addition, paper produced with bacterial cellulose is of much higher quality than that produced with cellulose extracted from wood.

However, the development of a commercially feasible fermentation process to produce cellulose from bacteria (specifically, from Acetobacter xylinum) presents significant technological challenges. This semester twelve undergraduates are working to that end by exploring many of the variables associated with the process.

The twelve are doing the work through Course 10.27 in chemical engineering, otherwise known as the Chemical Engineering Processes Laboratory. Every semester students in 10.27 are introduced to chemical-engineering operations via hands-on experience with pilotscale equipment and processes. The fermentation section of the course is led by Jean-François Hamel, a research engineer and lecturer in chemical engineering.

"INTELLIGENT" INSTRUMENTS

Todd Machover and colleagues at the Media Lab continue to redefine the roles of composer, performer and instrument by developing new hyperinstruments. These "intelligent" musical instruments use computer technology to expand the capabilities of instrument and performer.

Now the group is developing Drum Boy, a portable hyperpercussion instrument that will let musicians enhance their percussive capabilities far beyond what is possible with current electronic systems.

Machover, associate professor of music and media at the Media Lab, has already created hyperinstruments including hyperkeyboards and hypercellos. For each, a computer receives information-such as pitch and tempo-from the musical instrument via the Musical Instruments Digital Interface. The computer then redefines the data, depending upon the program used.

This reinterpreted music is then played by a synthesizer. As the hyperinstrument is synthesizing music, the audience may also hear the music that's being played on the original instrument. There is constant interaction between the performer, the hyperinstrument, and the computer.

This column features summaries of MIT research drawn from several sources. If you have an item to suggest, send it to Elizabeth Thomson, Rm 5-111, or <thomson@mit.edu>.

Colloquium to Focus on 'German Bomb'

had been captured by the Allies and were interned for six months beginning in July 1945 in a manor house in Great Britain called Farm Hall.

Thomas Powers's recently published Heisenberg's War, The Secret History of the German Bomb, offers yet another explanation, a radical and controversial one. Powers suggests that an important factor in the decision by the German scientists not to undertake the building of a bomb was a moral and political judgment of what the consequences of such a weapon in the hands of the Nazis would be.

The ongoing debate has not only stimulated a critical review of the German nuclear effort but has also forced a reassessment of the activities of the Allied nuclear scientists at Los Alamos during the spring of 1945, after it had become clear that the war against the Axis powers had been won. Dr. Weisskopf was with the Manhattan Project, serving as a group leader and associate head of the theory division on the exploitation of nuclear power

The program in the Dibner Institute conference room in the Dibner Building (E56-100) will include a new video interview of Hans Bethe and R. R. Wilson conducted by Professor Silvan S. Schweber of Brandeis University.

The film will be shown at 1:30pm and the colloqium will begin at 3. Refreshments will be served. All are welcome. For more information, call x3-8721

electron microprobe studies The group reconstructing MIT site history consulted documents and maps in the Institute Archives, the Cambridge Historical Society, and the Cambridge Public Library. They discovered that most of MIT sits on marshland that was filled about 1890. The fill consisted of material from local dumps, which explains the range of artifacts and materials recovered. Only a few buildings are shown that predate

was a carriage factory located at the corner of Main and Vassar streets.

Current excavations began at the end of March and are producing the same artifacts and materials found in the biology building backdirt, including whole bottles, nails, pipe fragments, ceramic and glass plates and evidence for the carriage factory shown on 19th century maps.

The course is co-taught by Professor Dorothy Hosler of the Center for Materials Research in Archaeology and Ethnology (CMRAE) and the Anthropology/Archaeology Program and Dr. Harry Merrick of the Anthropology/Archaeology Program. Professor Hosler also is a lecturer in the Department of Materials Science and Engineering; she specializes in the prehistoric technologies of Mexico and Ecuador, especially ceramics and metal. Dr.Merrick is a specialist in African Prehistory and Human Evolution. Joan Merrick of the Anthropology/ Archaelogy Program assists with the excavations and laboratory analyses.

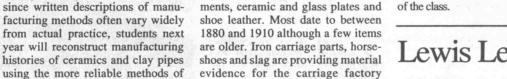
The dig and laboratory exercises have generated sufficient enthusiasm that Hosler and Merrick have decided to incorporate excavations and materials analysis as a permanent feature of the class.

Lewis Lecture

Dr. John M. Prausnitz, professor of chemical engineering at the University of California, Berkeley, will deliver the 14th annual Warren K. Lewis Lecture Friday, May 7 at 4pm in Gilliland Auditorium (Rm 66-110).

The title of his talk is Against Babelism: Diversity, Hermeneutics and Legitimacy-Aspects of Engineering for the End of This Century.

Professor Prausnitz, whose professional interests lie primarily in phase equilibrium thermodynamics for chemical process design, is a consultant to federal research laboratories and to several corporations.





Freshman Maryann Smela and sophomore Melanie Routh strain dirt dug up by the Introduction to Archeology class, checking for overlooked artifacts. Photo by Donna Coveney

Building 20 Dig Yields Artifacts

(continued from page 1)

Symposium to Feature Tsongas

(continued from page 1) S.J. Furniss, head of the Pharmaceutical Industry Branch of the UK Dertment of Health; Yale Drazin, director of the Drug Program Branch at the Ontario Ministry of Health; Toshihiko Takeda of the Japan Ministry of Health and Welfare; and Henri Termeer, chief executive officer of Genzyme, as well as many other distinguished corporate, government and university representatives.

learning about developments in science, engineering and management. The symposium begins at 7:30am on Dr. Judith Jarvis Thomson, the Laurance S. Rockefeller Professor of Philosophy in the Department of Linguistics and Philosophy, has been invited to give the Immanuel Kant Lectures for 1993-94 at Stanford University. She will deliver the lec-

(continued from page 1)

Students working on glass bottles,

ceramics, and clay pipes were able to

describe the general manufacturing

histories of those artifact classes

through library research. However

materials analysis (optical petrogra-

phy). They also will investigate arti-

fact chemical compositions through

the construction of MIT, one of which

metallographic techniques.

Professor Ceyer, a 1974 Hope graduate who has gained national recognition as a chemist, has been a member of the chemistry faculty at MIT since 1981. The college said she has served as a role model for Hope students and has often returned to campus

Awards & Honors

ference sponsored by the Eno Transportation Foundation. They are among 30 transportation students from around the nation and will meet with administration, congressional and industry leaders for five days, learning how national trans-

The Industrial Liaison Program assists a group of 250 companies in

I nursday May o in Rm 9-150 at MIT. It will adjourn at 12:15pm on Friday, May 7. Those wishing to attend should contact the Industrial Liaison Program at x3-0213. The seminar fee including lunch and dinner is \$500 (\$250 for MIT alumni and individuals from other universities). Employees of Industrial Liaison Program companies and members of the MIT community may attend free of charge.

Arts Funding Conference Announced

(continued from page 1)

tive public discussion, we hope to develop innovative policies and positions which may be submitted to legislators and arts advocacy organizations nation-wide," he said.

'By inviting the participation of public officials, artists, and academics at this level, MIT underscores its commitment to the arts and arts education, and to careful examination of the current debate over federal arts funding," Professor Harris said.

"The Public Patron: Drafting a Mandate for a Federal Arts Agency" is open to the public. Registration is \$25 in advance, \$35 at the door. For more information and a registration form, call the MIT Office of the Arts at x3-4003.

tures in May 1994.

GenRad, Inc., of Concord, Mass., has elected Dr. Michael S. Scott Morton, Jay W. Forrester Professor of Management, to its board of directors. Dr. Scott Morton served as director of the Sloan School's "Management in the 1990s" program from 1976 to 1981. GenRad supplies integrated software and automatic test and measurement systems to manufacturers and users of electronic and mechanical equipment.

Dr. Sylvia T. Ceyer, professor of chemistry, is one of four alumni/ae of Hope College, Mich., who will receive Distinguished Alumni Awards during Alumni Day at the college this month. The awards are presented by the Alumni Board of Directors in recognition of contributions to society and service to the college.

to share her knowledge and expertise as a seminar leader for the department of chemistry. During Homecoming in October, she will be the Hope Chemistry Alumni Day speaker.

The Hoover Institution has announced the selection of Dr. John C. Heaton as one of its 12 National Fellows for 1993-94. Dr. Heaton, assistant professor of finance and economics at the Sloan School of Management, plans to carry out research on asset market structure, savings and investment. The Hoover Fellowship Program provides time for younger scholars to pursue original research free of teaching duties.

Two graduate students in civil and environmental engineering, Daniel L. Roth and Joan L. Walker, will be in Washington next week for the first annual leadership development con-

portation policy is formulated and implemented.

Sharon L. Greenberger, a graduate student in the Master's in City Planning Program in the Department of Urban Studies and Planning, has been selected as a Luce Scholar for 1993-94, the Center for International Studies has announced.

Ms. Greenberger, one of 18 scholars selected nationally to spend the year in Asia, will work in the field of urban planning in a location still to be determined.

The Luce Scholars Program each year selects a small number of Americans under the age of 30 to broaden professional perspectives while sharpening their perceptions of Asia. The program is funded by the Henry Luce Foundation and administered in Asia in cooperation with the Asia Foundation.



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

May 5 - 16, 1993

SPECIAL INTEREST

Awards Convocation**-May 5: 3:30pm, Rm 10-250. Reception immediately following, Lobby 13, Bush Building. Refreshments.

- MIT Community Summer Softball 1993 Organizational Meeting**-May 5: For new and old team entries, 5:30pm, Student Center, 20 Chimneys. More info: Marino Tavarez, MITCSS 1993 Commissioner, 262-9032.
- Art Sale*-May 6 & 7: Sponsored by the Student Art Association, 9am-4pm, Lobby 10.
- TCC Day**-May 8: Technology Children's Center, Inc., presents a spring fair for children, with games, prizes, fun food, ball crawl, moon bounce, music by Hugh Hanley, bake sale, dunk tank and rummage sale. 12-5pm, inside Johnson Athletic Center.
- **Biologic Determinants of Homosexuality: Pub**lic Policy Implications*-May 10: Lecture by Dr. Richard Pillard. See listing below.
- Space Shuttle Mission STS-56*-May 11: Lecture by Col. Kenneth Cameron, NASA, Commander of the Space Shuttle Discovery. See listing below.

SEMINARS & LECTURES

WEDNESDAY, MAY 5

- Thermodynamic Optimization of a Two-Stage Helium Cryocoller**-Eric B. Ratts. Doctoral thesis presentation, 10:30am, Rm 5-134.
- Acoustic Tomography and Some Ideas About Deep Convection in the Greenland Sea*-Richard Pawlowicz, MIT-WHOI Joint Program. Oceanography Sack Lunch Seminar sponsored by the Dept. of Earth, Atmo-spheric, and Planetary Sciences, 12:10pm, Rm 54-915.
- Some Remarks on the Ongoing Russian Roulette*—Alexei Arbatov, CSIA, Dir. of Cen-ter on Geopolitical and Military Forecasts, Special Advisor to COmmander-in-Chief of Strategic Rocket Forces. Defense and Arms Control Studies Seminar, 12:15-1:45pm, Rm E38-714. Beverages provided.
- Emergence of Environmental Geotechnology**-Norbert R. Morgenstern, Univ. of Alberta. Part of the "Designing the Future" Colloquium Series sponsored by the Dept. of Civil and Environmental Engineering, 3:30-5pm, Rm 9-150.
- Molecular Dynamics of Hydrogen Bonded Poly mer Crystals*-Dr. Alan English, E.I. DuPont de Nemours. Polymer Seminar sponsored by the Program in Polymer Science and Technology, 3:30pm, Rm 66-360.
- Force Calculations Using the Linearized Forward Speed Radiation Potentials*-Harry Bingham. Sponsored by the Dept. of Ocean Engineering, 3:30pm, Rm 5-326.
- Quantification of Neuronal Degeneration Using MR Spectroscopy**-Alex Guimaraes. RST Doctoral Seminar, R.G. Gonzalez,

Cost*—Dr. M. Allen Northrup, PhD, Lawrence Livermore National Laboratory. Mechanical Engineering Special Seminar, 3pm, Rm 3-370.

- Focused Near-Field Nulling Techniques for Adaptive Antenna System*-A.J. Feen, PhD, Lincoln Laboratory. Sponsored by CETA/RLE, 3:30-5pm, Rm 34-302.
- Cold Fusion, Present Status as a Significant Phenomenon*-Dr. Edmund Storms, Los Alamos National Laboratory, Nuclear Materials Dev. Special EECS Colloquium 4pm, Rm 34-101.
- Synthesis and Characterization of Molecular Sieves*-Dr. Edith M. Flanigen, UOP Resarch and Development, Tarrytown, NY. Arthur D. Little Lecturer in Inorganic Chemistry, 4pm, Rm 6-120. More info: x3-1848.
- Mass and Tritium Ventilation in the North Atlantic*-Horacio Figueroa, Princeton Univ. Quasi-Biweekly Seminar Series, Center for Meteorology and Physical Oceanography, 4pm, Rm 54-915.
- Development of a 3-D CFD Code Based on the Random Vortex Method, A Progress Report: Part I*-Adrin Gharakhani, Gradu ate Research Asst. Sponsored by the MIT Sloan Automotive/Reacting Gas Dynamics Laboratories, 4:15-5:15pm, Rm 3-343. Refreshments, 4pm.
- A Brief History and Some Modern Problems in Electrical Well Logging*—Dr. Michael L. Oristaglio, Dir. of Electromagnetics of Schlumberger-Doll Research, CT. Sponsored by CETA, 5pm, Rm 26-310. More info: x3-8514

FRIDAY, MAY 7

- Numerical SImulation of Reacting Shear Flow Using Vortex Methods*-Mr. Marios Soteriou, MIT. Computational Aerospace Sciences Laboratory, 12pm, Rm 33-206. Refreshments.
- Digital Wireless Communication**-M.C. Chow, AT&T Bell Labs. Distinguished Lecture Series sponsored by CAES and the Collaboration for Interactive Visual Distance Learning, using the PictureTel videoconferencing system. 12-1:30pm, Rm 9-253. Space is limited, call Margaret Maughan x3-3783 to reserve.
- Audio Applications*-Barry Arons. Seminar Series sponsored by the Center for Coordination Science, 12:10-1:30pm, Rm E40-170. Bring your lunch.
- Heisenberg and the War*-Prof. David C. Cassidy, Hofstra Univ., and Institute Prof. Victor F. Weisskopf, MIT. Colloquium sponosred by the Dibner Insitute. Video interview of Hans Bethe and R.R. Wilson, 1:30pm. Colloquium, 3pm. Dibner Institute conferenceroom, Rm E56-100. Refreshments. More info: x3-8721.
- Hands-On Design*-Prof. William K. Durfee, MIT. Mechanical Engineering Seminar, 3pm, Rm 3-370
- Against Babelism: Diversity, Hermeneutics and Legitimacy. Aspects of Engineering for the End of the Century*-John Prausnitz, Univ. of CA/Berkeley. The Lewis Lecture. Chemical Engineering Seminar Series, 3pm, Rm 66-110. Refreshments preceding.
- Creative Thinking in the Decision and Management Sciences*-James Evans, Univ. of Cincinnati. Operations Research Center and Decision Sciences Program Seminar Series, 4-5pm, Rm E40-298. Refreshments follow in Rm E40-106.
- Coping with Complex Geometry and Topogra-phy: Examples from the North Atlantic and North Pacific Oceans**-Dale B. Haidvogel, Rutgers Univ. EAPS Department Lecture Series, 4pm, Rm 54-915. Refreshments, 3:30pm, Ida Green Lounge.
- Mid-Infrared Absorptions in Undoped Lamellar Copper Oxides*—Prof. John M. Graybeal, MIT. Sponsored by the Center for ials Science and Er

Biologic Determinants of Homosexuality: Public Policy Implications*-Dr. Richard Pillard, Prof. of Psychiatry, BU School of Medicine. Sponsored by the Department of Brain & Cognitive Sciences, 4:30-5:30pm, Rm E25-111. More info: x3-8741 or x3-6731.

TUESDAY, MAY 11

- Demand Side Management in Japan*-Motomi Iki, Tokyo Electric Power Co. Po-litical Economy of Global Energy and Environment Brown Bag Luncheon Seminar Series, CIS, 12-1:30pm, Rm E38-714.
- Space Shuttle Mission STS-56*-Col. Kenneth Cameron, NASA, Commander of the Space Shuttle Discovery. Sponsored by the Aero nautics and Astronautics Dept., 3pm, Rm 34-101. More info: x3-2608.
- Modern Aspects of Ancient Metallurgy*-Hans-Gert Bachmann, Institute of Archaeology, Univ. of London. CMRAE Materials and Anthropology Series, 8pm, Rm 8-314.

WEDNESDAY, MAY 12

- **GEOSAT Data Assimilation with Application** to the Easter North Atlantic*-Dr. Detlef Stammer, CMPO, MIT. Oceanography Sack Lunch Seminar sponsored by the Dept. of Earth, Atmospheric, and Planetary Sciences, 12pm, Rm 54-325.
- Removal of Irregular Frequencies Using a Modified Green Function*-Xumei Zhu. Sponsored by the Dept. of Ocean Engineering, 3:30pm, Rm 5-314.

THURSDAY, MAY 13

Leadership in a Competitive Marketplace: A Customer-to-Customer Process*-T.A. Wilson, '53, Chairman Emeritus, The Boeing Company. The Gardner Lecture, sponsored by the Dept. of Aeronautics and Astronautics, 4pm, Rm 9-150.

FRIDAY, MAY 14

- Modeling and Specification-driven Software Development**-S. Lally, AT&T Bell Labs. Distinguished Lecture Series sponsored by CAES and the Collaboration for Interactive Visual Distance Learning, using the PictureTel videoconferencing system. 12-1:30pm, Rm 9-253. Space is limited, call Margaret Maughan x3-3783 to reserve.
- A Separation of the Longitudinal and Transverse Structure Functions in the D(e, e'p)n Reaction**-David Jordan, MIT. Bates Library, 12:45pm.

FILMS & VIDEO

Video News Tapes on India*-May 13: Showing in a series of video tapes, covering events during March, from Newstrack, an independent news agency in New Delhi. Sponsored by the Center for International Studies, 4:30pm, Rm E38-615.

COMMUNITY INTEREST

- Alcoholics Anonymous (AA)**-Meetings every Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info: Alise, x3-4911.
- Women's 12-Step AA**-Meetings every Monday evening, 5:30-7pm, Rm E23-364. More info: Alise, 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 member-ship is that there be a problem of alcoholism in a relative or friend. Call Alise, x3-4911.
- Alcohol Support Group**-Meetings every Wednesday, 7:30-9am, sponsored by MIT So-cial Work Service. For info call Alise, 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 infor

views, volunteer work, employment agencies, salary negotiation, visa issues, much more. Free information booklets available in Rm 5-106 (International Students Office), Rm 4-105 (International Scholars Office), and Rm 20A-023 (Office of Special Commu nity Services). Reference binders may be used in Rm 12-170 (Office of Career Services); ask for Cathy Taylor.

- Hosts to International Students Program*-Widen your horizons, enjoy the mutual opening of new cultural doors by becoming a host or host family to an on-campus MIT international undergraduate, graduate or couple Currently students from Asia and Europe await a host connection. Sponsored through the Office of the Dean for Student Affairs and the International Student Office. Call Kate Baty x3-4862.
- Informal Embroidery Group**-MIT Women's League, 10:30am-1:30pm. Upcoming dates are: May 5, 19, June 2, 16. Meets in the Emma Rogers Room 10-340. Info: x3-3656.
- Job Search Support Group**-May 7: Selfhelp group for foreign national spouses seeking paid or volunteer work, 3pm. Guest speaker: Steve Levi, marketing specialist. Call Mieke 628-0721 or Monika 923-4798. Sponsored by the MIT Wives' Group
- Narcotics Anonymous*—Meetings at MIT, ev-ery Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.
- Overeaters Anonymous**-Meets Thursday, 1-2pm, Rm E23-364. More info: x3-4911.
- New Overeaters Anonymous (OA)*-Meets Friday, 12-1pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alise, x3-4911.
- Playgroups**-The MIT Wives Group, now with the cosponsorship of the MIT Family Resource Center, sponsors and provides ongo ing support for informal mother-child playgroups. Contact Wives Group, Rm E23-376, x3-1614.
- Stepparenting Group**-For stepparents and other live-in partners. Monthly Friday meet-ing, 12-1:30pm. New members welcome. \$20-\$30 sliding fee per meeting. Pre-registration required, call Judy Osborne, 731-5767.
- Technology Children's Center**-The only childcare center on the MIT campus has spaces available in all of its programs at Eastgate (half-day and full-day) for children ages 2 yr 9 mo to 5 yr 6 mo. Information: Olga Slocum, Director, x3-5907.
- MIT Toastmasters**-Upcoming meeting: May 7. An organization that helps people improve and practice their public speaking skills. 12:05-1:30pm, Rm E19-220. Sponsored by MIT Personnel Office.
- Wives' Group**-May 5: "Recent Scholarship in Black Women's Studies," Prof. Robin W. Kilson, MIT. May 12: "Issues in Feminism Today," Ruth Perry, Prof. of Literature and Director of Women's Studies, MIT. Meetings are from 3-4:45pm, Rm 400 Student Ctr. Babysitting in Rm 491. All women in MIT community welcome. Info: x3-1614.
- Working Mothers Group**-Ongoing participant-led meetings monthly on the first Thursday of each month, 12:15-1:30pm, Rm 18-592. For all working mothers in the MIT community. No preregistration required. Cosponsored by the Family Resource Center and the MIT Medical Dept. Contact Debbie Levey, volunteer coordinator for the group, x3-7112.
- Working Parents Group**-Ongoing meetings weekly on Tuesdays, 12:30-1:30pm. Led by Jackie Buck, Social Worker, MIT Medical Department. Cosponsored by the Family Resource Center and the MIT Medical Dept. New members welcome, no fee, preregistration required, call x3-4911.

HEALTH EDUCATION

CPR Training**-May 7, 14: Session I, 8:30am-11:30am. Attendance required both days. May 8: Session II, 9am-3:30pm, Sponsored by the

Wed of each month, 4-5:30pm, Rm E23-297. No fee. No registration. Call x3-2466 for details. Sponsored by the MIT Health Education Service.

- 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 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 p chased at the MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm Monday-Friday (except the third Monday of each month when MITAC is closed for inventory). Lincoln Lab sales in Rm A-218, 1-4pm Thursday and Friday. Further details on events are included in MITAC's monthly flyer. To avoid disappointment, purchase tickets early. Because MITAC is nonprofit, refunds/exchanges are not available

- MITAC, the MIT Activities Committee, offers discount movie tickets for General Cinema (\$4.50/each), Showcase and Loews Cinemas (\$4.25/each, not valid the first 2 weeks a movie is released). Tickets are good 7 days a week, any performance.
- Polynesian Dinner and Dances at the Hu Ke Lau in Chicopee**-May 23: Bus leaves Hayward Lot at 3:30pm; Linc. Lab at 4pm; returns to Linc. Lab approx. 10:30pm, Hayward Lot approx. 11:15pm. \$37/pp includes r/t bus, bus tip, dinner and dance performance. Purchase tickets by May 14.
- Arms and the Man**-May 27: At the Huntington Theatre, Boston, 8pm. Tickets \$20/ea (reg. \$30/ea). Purchase tickets by May 12.
- Whitewater Rafting in Calumet, Quebec**-June 18-20: On the Rouge River. \$165/pp includes r/t bus, bus tip, 2 days of rafting, 2 breakfasts, 2 dinners, 2 light lunches. Rustic camping—you provide your own tent, sleep-ing bag and camping gear. Options: \$160/pp for 1 day of rafting and 1 day of mountain bike riding; \$125/pp for 1 day of rafting and 1 day on your own. Must be at least 13 years old for rafting trip. Bus leaves West Garage on Friday at 12pm; returns approx. midnight June 20. Payment due by May 20.
- Downeast Lobsterbake/Harbor Cruise in Portland, Maine**-June 26: You'll have 2 hours on your own before boarding the Bay View Lady for a harbor cruise and lobsterbake Bus leaves Linc. Lab at 11:15am and Hayward Lot at 12pm. Returns approx. 9pm to Linc. Lab and 9:45pm to Hayward Lot. \$48.50/pp includes r/t bus, bus tip, harbor cruise, lobsterbake, all taxes and gratuities. Purchase by May 12.
- New Discounts: Arams #1 House of Pizza, Arlington Capitol Theatre, New England Aquarium, Bay State Cruise Company, born 2b wild, Beantown Trolleys, Blumen Haus Flowers, Boston Brownie, Boston Fitness for Women, Cafe Labrioche, Cambridge World, Cambridge Tire and Car Care Centers, Cam-bridge Vision Center, Charles Playhouse: A Closer Walk With Patsy Cline, Charles River Boat Company, Checker Cab Company, Computer Museum, Concord Orchestra Pops, Costco Wholesale Club, Martha's Vineyard and Nantucket Ferry Discounts, Goemon, Great Wraps, Harris Whale Watch, Heritage NH, Improv Boston, Kay Jewelers, Larry' Chinese Restaurant, Magic Kingdom Club Card, Mass Buying Power, MIT Optical, MIT Press, more.

SOCIAL ACTIVITIES

- Chinese Lunch Table. Meets every Tuesday and Wednesday, 12-1pm, Student Center, Private Dining Room, 3rd floor. Bring your lunch and come practice your Chinese speaking. All levels welcome. Sponsored by the Chinese Students Club.

Nuclear Engineering Dept., 3:45pm, Rm 24-115. Refreshments will be served.

Lecture by Prof. R. Karp, Univ. of CA/Berkeley. Applied Mathematics Colloquium, 4:15pm, Rm 2-190. Coffee/tea, 3:45pm, Rm 2-349. More info: x3-3661 or x3-2688.

International Environmental Treaties and Sustainability Issues*-Lawrence Susskind, MIT. Faculty Seminar on Global Environment and Sustainable Development, 4pm, Rm E53-482. More info: x3-6198 or x3-5263.

Mapping the Genome: Some Combinatorial Problems Arising in Molecular Biology* Prof. R. Karp, Univ. of CA/Berkeley. Applied Mathematics Colloquium, 4:15pm, Rm 2-190. Refreshments, 3:45pm, Rm 2-349.

"Real Bedouin," "Real Jordanians": The Making of Tribal and National Identities in Jordan*-Linda Layne, Rensselaer Polytechnic Institute. Peoples and States: Ethnic Identity and Conflict, CIS, 4:30-6:15pm, Rm E38-714, Refreshments, More info: x3-3065.

THURSDAY, MAY 6

Biomedical Microtechnology: Opportunities to Improve Health Care While Decreasing Its

eering, 4pm, Km 9-150. Refreshments, 3:45pm.

MONDAY, MAY 10

Pseudomorphic High Electron Mobility Transistor (PHEMT) for Microwave and Millimeter-wave Power Applications*-John C. Huang, Raytheon Co. Heterostructure Device Seminar, 10am, Rm 34-401A. Refreshments, 9:45am,

A Theory of Blood Flow in Skeletal Muscle*-Prof. Geert Schmid-Schönbein, Univ. of CA/San Diego. Fluid Mechanics Seminar Series, 4-5pm, Rm 5-234. More info: Dr. Johnson x3-7604 or <markj@eagle.mit.edu>

In Situ Solidification and Fixation*-Dr. Warren Lyman, Camp Dresser and McKee. Sponsored by the Ralph M. Parsons Labo ratory for Water Resources and Hydrodynamics, Dept. of Civil Engineering, 4pm, Rm 48-316.

Micromachine Technology for Innovation in the Information and Communications Industry*-Prof. Kiyoshi Itao, Chuo Univ, Tokyo, Japan, and NTT Interdisciplinary Research Laboratories, Musashino, Japan. Microsystems Technology Laboratories, 4pm, Rm 34-401A.

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: Alise, x3-4911.

Drop-In Playgroup**-Ongoing, daily, Mon-Fri, 9:30-11:30am, Westgate Function Room. Sponsored by the MIT Family Resource Center

Eastgate and Westgate Programs**-To obtain a list of programs sponsored by the Fam-ily Resource Center at Eastgate and Westgate, call x3-1592.

Gay, Bisexual, and Lesbian Employees and Supporters (GABLES) at MIT**-Come to discuss and work on issues ranging from domestic partner policies to gays in the military. Take part in varied cultural, educational, and social activities. For info on upcoming events, call x2-1014. To sign up for the staff lesbigay e-mail lists, send e-mail to <gablesrequest@athena.mit.edu>. If you have qu tions about GABLES, call Stephen, x3-6736.

Guide for Foreign National Spouses Seeking Work**-Guides provide information on topics such as American resumes, job inter-

MIT Health Education Service. Each session offers American Heart Association Level B certification in cardiopulmonary resuscitation for adults, infants and children. Location: MIT Medical Dept. Fee: \$35 per participant. More info or to register: x3-1316.

Practical Parenting Series**-May 11: A Second Baby? Maybe. Programs meet 12-1pm, Rm E23-297. No fee. No registration unle noted. Call x3-1316 for details. Sponsored by the MIT Health Education Service.

From Smoker to Non-Smoker**-Five ninetyminute sessions offer proven techniques for smoking cessation. Starting May 18: Series meets Tuesdays, May 18, 25, June 1, 8 & 25. Daytime and evening classes are scheduled according to demand throughout the year. To register for the next class call x3-1316. Fee: \$30 (\$25 MIT Health Plans, students).

A Breath of Fresh Air**-Monthly noon-hour reunion and relapse prevention sessions for graduates of the From Smoker to Non-Smoker workshop, No fee, No registration. Call x3-1316 for dates, rooms, times. Sponsored by the MIT Health Education Service.

Nursing Mothers' Support Group**-First Tues of each month, 10-11:30am and third

Japanese Lunch Table. Meets Tuesdays at 1pm in Rm 407 and 491 in the Student Center. Bring a lunch and talk with native Japanese speakers. All Japanese speakers, especially beginners, are welcome. Call x3-2839.

La Table Francophone. Informal French conversation, open to all. Meets Fridays at 1pm in Walker Memorial Dining Room. More info: x3-9777.

Esperanto Conversation Group. Meets Mondays 7:30-9pm in the SCC Coffeeshop in the Student Center. Sponsored by the MIT Societo por Esperanto. More info: <speak@athena.mit.edu>.

MOVIES

Admission to below Lecture Series Committe 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.

May 7: Charade (1964), Rm 10-250, 7:30pm. May 8: Aladdin [G], Rm 26-100, 3, 7 & 10pm.

Send notices for Wednesday, May 12, through Sunday, May 23, 1993 to Calendar Editor Rm 5-111, before 12 noon Friday, May 7.

TheArts

The Arts Page is produced by the Office of the Arts in collaboration with ARTSNET. Lynn Heinemann, writer,

Susan Cohen, designer; Mary Haller, editor. E15-205; 253-4003.

'The Company of

Angels'

MIT students can see the world pre-

miere production of Professor Alan

Brody's award-winning play, The

Company of Angels, for free on Sunday,

May 9, by signing up for a Council for

the Arts-sponsored excursion at E15-

205. Reservations may be made in per-

son only by presenting valid MIT stu-

dent ID and a refundable \$5 deposit.

One ticket per student ID. Round-trip

transportation will be provided. Infor-

The play is based on the story of Rita

Karpinowicz, who formed Poland's

Yiddish theater after World War II.

"... It's a play about the theater, but it's

more," said Professor Brody "It's about

desperate people in the resettlement

camps and how a company of actors

was able to instill a belief for the future

The Company of Angels runs at the

New Repertory Theater, located at 54

Lincoln Street in Newton, through May

23. Tickets are \$14-\$23 (\$2 discount for students or senior citizens). Cur-

tain-time is 8pm Thursdays and Fri-

days, 5pm and 8:30pm on Saturdays,

3pm and 7:30pm Sundays, 2pm on May

5 and 19, and 8pm on May 12. Informa-

mation:253-2372.

in them. '

tion: 332-1646.

MUSIC

For recorded information on upcoming concerts call the MIT Music and Theater Arts Concert Line, 253-9800. Updated weekly

- Music at Noon Seeks Musicians. Performance series seeks musicians in all styles-classical, jazz, rock, folk, pop, etc.-to perform Tuesday and Thursday noons in front of the Stratton Student Center through June and July. Information: Mark Harvey, 253-8778.
- MIT Concert Choir-May 5. John Oliver, director. \$5. 8pm, Kresge Auditorium.

Music at Noon-May 5. James McClaren, Masters in Oceanography '91. Master degree recital from the Mannes College of Music. With Susan Lee, piano. 12noon, Killian Hall.

- Chamber Music Society-May 6. Students of Marcus Thompson and Lynn Chang:David Pecora '95, violin; Regina Cheung '96, violin; David M. Brann '94, viola; Juno Choe '96, cello. Pianists Gilbert Leung '95 and Jonathan Lai '95. Also Donald Yeung (G), violin; Eran Egozy '93, clarinet; and Elaine Chew (G), piano. 5:15pm, Killian Hall.
- Chamber Music Society-May 6. Students of Marcus Thompson and Lynn Chang: Roy Seto '93, violin; Bernhard Schnurr '95, violin; Roy Rasera '93, viola; and Jean Le Corre (G), cello. Mary-Beth Rhodes '94, violin; Andrew Hassell (G), violin; Joel Dawson '97, viola; Karen Lee '93, cello; Jean Le Corre (G), cello. 8pm, Killian Hall.
- Chamber Music Society-May 7. Students of Marcus Thompson and Lynn Chang: Karen Chang '94, piano; Wan-Ying Chee '93, violin; and Christine Lin '94, cello. Soprano Erin McCoy '95, mezzo-soprano Mary-Ellin Pothier '94, alto Teresa Ranck '93, tenor Dean Cerrato (G), baritone Evan Sherbrooke (G), and Michael Daly '94, bass. Mary Beth Rhodes '94, violin; Kurt Roth (G), cello, and pianist Leonard Kim '96. 5:15pm, Killian Hall
- Chamber Music Society-May 7. Students of Marcus Thompson and Lynn Chang: Pianist Adrian Childs '95, Jin Choi '94, violin, and Alan de Lespinasse '95, cello. Conan Hom, '95, violin; Toby Kwan '93, cello, and pianist Cherry Ogata '94. Julia Ogrydziak '96, violin; George Ogata '92, violin; Amy Martin '93, viola; Eran Marcus '93, cello. 8pm, Killian Hall.

MIT Muses and MIT/Wellesley Toons-May 8. A capella music. 7:30pm, Rm 6-120. 225-8587

- MIT Symphony Orchestra-May 8. David Epstein, conductor. \$1 at the door. Stravinsky's Symphonies of Wind Instruments (1920); Hindemith's Five Pieces for String Orchestra; Brahms' Symphony No. 4. 8:30pm, Kresge Auditorium.
- MIT Composers Ensemble-May 8. Chamber music group, founded by Eric Ostling '88, committed to the support and presentation of works by current and former student composers at MIT. 3pm, Killian Hall. 924-3671

THEATER

Theater & Dance Performance Hotline, 253-4720 for complete up-to-date information.

- Playwrights-in-Performance-May 6-8. Original student-written scripts directed by Prof. Alan Brody. All Her Favorite Fruit by Will Gump '94; "Untitled" by Desiree Gosby '94, and Other People's Dreams by Franz Elizondo '94. 8pm, Kresge Rehearsal Rm B. 253-2877/ 253-5623
- Third Person-May 7-9, May 13-15. MIT Community Players Experimental Production of new award-winning play about date rape by Barbie J. Lhota. Directed by Lila Stromer. 8pm, (2pm, May 9), Kresge Little Theater. 253-2530

EXHIBITS

OPENING RECEPTION List Visual Arts Center Season Finale

Sunday,

follow.

On

T he List Visual Arts Center (LVAC) opens three new exhibitions with a public reception on Friday, May 7, from 5 - 7pm. Several of the artists will attend. The exhibitions run through June 27 in the LVAC galleries located in the Wiesner Building (E15).

Subversive Crafts. This exhibition presents the works of 12 American and Canadian artists who undermine the decorative and comfortable domesticity usually associated with crafts. These ceramicists, weavers and stitchers, basketmakers and jewelers embed political or personal content into their teapots, blankets, baskets and necklaces. While crafts are often considered the stepchildren of the more intellectual and elevated "Fine Arts," these subversive craftspeople acknowledge the realm of the familiar and homey everyday object as a powerful milieu to provide commentary on the emotive conditions of contemporary life. Artists include Richard Notkin, John Garrett, Lilian Tyrrell, Laura Baird, Joyce Scott, and Keith Lewis.

May 16, at 3pm, John Perreault, senior curator at the American Craft Museum, will present a slide lecture on "The Use Taboo." A question-and-answer period will

> Frank Gehry: New Bentwood Furniture Designs. Known primarily for his architecture, Gehry has made occasional forays into furniture design (below). This exhibition explores the design process in the development of a new chair concept. Inspired by wooden crates and bushel baskets, Gehry designed a collection of lightweight, low cost production bentwood furniture for The Knoll Group between 1989 and 1991. The furniture is formed of continuous wooden strips, with no upholstery or underlying frames. Gehry sketched out his ideas on paper or

Three MIT Administrators Read Their Poems

The final reading in this year's Poetry at MIT Series will features three MIT administrators: Naomi Feigelson Chase, News Office consultant; Samuel Jay Keyser, Associate Provost for Institute Life and Professor of Linguistics; and Jean Flanagan, Communications Officer for the Laboratory of Nuclear Science(L-R, below). The reading takes Thursday, May 6, at 7:30pm in the Bartos Theater of the Wiesner Building (E15). Information: 253-7894.







"Child in Village of Ulubaria, near Calcutta, India" January, 1993

Wen Geleynse, Artist-in-Residence: Immigrant. The Canadian artist will be

A Trip to India

Malay Kundu '94, the first recipi-ent of the List Foundation Fellowship Award, will present the culmination of his year-long fellowship: a photography exhibition entitled Visiting the Unseen: A Trip to India, currently on view at the Jerome B. Wiesner Student Art Gallery on the second floor of the Stratton Student Center. The

Mr. Kundu, an electrical engineering major, traveled to India during the IAP period of 1993 to document the grimmer aspects of life in the slums in the city of Calcutta. He also visited and reported on the conditions in several remote villages. The exhibition addresses what he calls "the indigenous strengths and values which allow the people of Calcutta to transcend the barriers of oppression."

The show includes eleven large-format black and white photographs ranging

Albert A. List Foundation, the Fellowship was created to "encourage a broad range of artistic endeavor and to further cultural investigation, affirmation and understanding through the arts by supporting students of color in their exploration of traditional and non-traditional art forms." The fellowship, administered by Maureen Costello, Director of Special Programs of the Office of the Arts, awards up to \$5,000 annually to one MIT graduate and/or undergraduate student to support the year-long pursuit of a project in the performing, visual or literary arts.

For more information on the List Foundation Fellowship in the Arts contact Maureen Costello at 253-4004 or costello@media.mit.edu.

Within/Without 1989, Richard Notkin worked directly with the wood, explor-

Heart Teapot:

ing its structural qualities, weaving it into pillows, mats and balls. The five chairs, two tables, and an ottoman which comprise Knoll's "Gehry Collection" are included in the exhibition, as well as prototypes, related drawings and photographic murals.

in residence to create a site-specific work in the LVAC's Bakalar Gallery, as well as a publicly-sited film projection piece. The installation uses massproduced, idealized images of land and seascapes along with film projection to explore the immigrant experience and subsequent attempts to re-establish identity in the adopted land.

The outdoor film projection will be on view from May 5-10, between 8-10pm. On a building directly behind the List Center, near the corner of Ames and Amherst Streets, the spectral image of a hand holding a small gilded framewill appear.

The LVAC is located in the Wiesner Building (E15). Hours are weekdays 12-6, weekends 1-5; closed holidays. Information: 253-4680.

show will be up through May 15.

in size from 24" x 36" to 26" x 46". Established with support from the

Feigelson Chase is author of Waiting for the Messiah in Somerville, Mass., and two works of non-fiction: A Child is Being Beaten and The Underground Revolution: Hippies, Yippies, and Others.

Flanagan's poems have appeared in City of River Voices, and the Worcester Review.

Keyser has read at La Mama Gallery in Soho and at the Arlington Center for the Arts. His forthcoming book is entitled Raising the Dead.

Sponsored by the Program in Writing and Humanistic Studies, Literature Section, and Council for the Arts at MIT.



ISABEL ALLENDE TELECAST-The 1993 William L. Abramowitz Lecture, delivered by Isabel Allende at MIT in March, will be broadcast on Continental Cablevision in Cambridge on May 6, at 8pm. A follow-up interview with Ms. Allende and selections of her work read by Vivian DeZengotita '94 and Javier Segovia '93, will air on Thursday, May 13, at 8pm. The programs will run continually on MIT Cable from 9am on Friday, May 7 to 9am on Tuesday, May 11. –Photo by Stephen S. Hau '94 on Tuesday, May 11.

List Visual Arts Center (E15): Subversive Crafts. Frank Gehry: New Bentwood Furniture Designs. Wyn Geleynse: Artist-in-Residence. Opening Reception-May 7, 5-7pm. Exhibitions run through June 27. Regular hours: Weekdays 12-6, weekends 1-5. 24-hr Hotline, 253-4680.

MIT Museum Bldg (N52): The Works of Charles H. Woodbury. After being on tour, this major retrospective of the oils, watercolors, etchings, and drawings of Charles H. Woodbury returns to the MIT Museum. Artist/teacher Charles H. Woodbury (1864-1940), graduated from MIT in 1886 and established himself in Maine in 1888, becoming founder of the Ogunquit art colony. One of the earliest artists working in the Impressionist style. Tues-Fri 9-5, Weekends 1-5. 253-4444

Compton Gallery-Otto Piene: Sky Art. Sketches, models, photographs, and paintings documenting the sky art installations of Prof. Otto Piene, Director of the CAVS. Through Sept 10. Weekdays 9-5. 253-4444

OTHER

Pottery Sale-May 6-7. Student Art Association. Lobby 10, 9am-4:30pm. 253-7019

8 MIT TECH TALK

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MIT Students Teach Environmental Issues at Local School

Demonstrating MIT's "hands on" style of learning, several undergraduates have been presenting a new program they developed to give children in the Longfellow Elementary School in Cambridge an understanding of the science involved in meeting environmental challenges.

Since March 8, 10 juniors and seniors in a new class (1.993—Environmental Science Teaching) offered in the Department of Civil and Environmental Engineering have been meeting each week with the five 4th and 5th grade classes at the school. Every week, each of the five pairs of students presents a module to one of the five classes.

The MIT students discuss aspects of the science undergirding major environmental challenges. The topics presented include:

Oil Spills.

• The Rain Forest.

• The Boston Harbor Cleanup project.

- Recycling and Reuse.
- What is a Building?

The MIT class began as an idea that Paula M. Lee, a senior from For-

est Hills, NY, presented late last year to Professor Rafael L. Bras, head of the Department of Civil and Environmental Engineering. The goal, Ms. Lee told MIT Tech Talk, was to give elementary school children "a perspective on a more specialized field, beyond the mainstream math and science." Her vision for attaining that goal was to establish a class for Course 1 juniors and seniors. The first half of the semester would be spent developing a "teacher's module" targeted specifically to 4th and 5th graders, while the second half of the semester would be spent teaching the module to the children.

Professor Bras approved the suggestion.

"The new subject has many benefits," he said. "It forces our students to focus their knowledge of the concepts of science and engineering on a particular problem, and also demands that they simplify those concepts so that they can be transmitted to children. In doing this, they learn about public speaking and public communication, while providing a tremendous public service to a community that has given much to MIT."

Early in January, Virginia M. Sorenson, coordinator of MIT's Public Service Center, arranged a meeting between Ms. Lee and Dr. Melanie Barron, the science district coordinator for Cambridge schools. Dr. Barron was very enthusiastic about the project which was quickly approved by Margarita Otaro-Alvarez, principal of the Longfellow School. Professor Ole S. Madsen of the Department of Civil and Environmental Engineering volunteered to be the faculty adviser for the project. He worked extensively with Ms. Lee to lay the groundwork needed so that the subject could be offered in the spring term.

Early on in the semester, the MIT students heard from a guest speaker, Grace Yong Madsen, a Boston public school science teacher. She shared her expertise on how to keep order in a classroom and how to maintain interest in the subject.

The MIT students were clear from the outset of their goals. "We wanted to make the elementary students more environmentally aware, by imparting to them a more fundamental understanding of the science, beyond the usual 'recycle and conserve' slogan,"Ms. Lee said.

The MIT students also conceived 1.993 as a way to gain teaching experience and to improve their communication skills. Senior Mark A. Cochrane said that "it was an excellent opportunity to learn about teaching and also to interact with the kids in the community." Carol Airasian, an MIT Teacher Fellow and a participant in the class, commented that "1.993 allowed the MIT students to transfer their knowledge into something practical that a 4th or 5th grader could use in his/her daily life."

Professor Madsen's presence and commitment to the project was critical to its success, Ms. Lee said. Mr. Cochrane said that "his (Professor Madsen's) presence was quite encouraging. He was always very helpful in providing guidance on how best to interact with the kids."

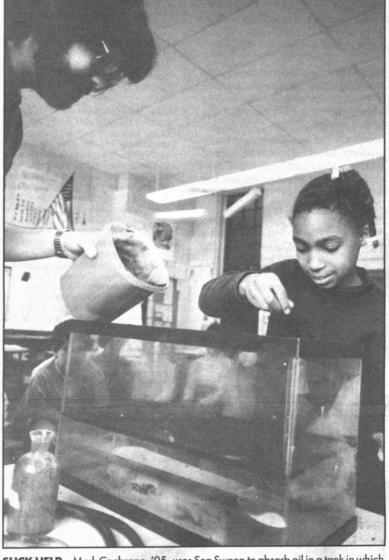
The Department of Civil and Environmental Engineering provided half of the funding to support the subject, Ms. Lee said. The project also received support from the City Days LINKS Program.

Overall, the response to the class by MIT students has been very positive, Ms. Lee said, noting that many have relived a portion of their elementary school days. Senior Shannon E. Mohr noted that "working with the kids was very invigorating. I was on a high after working with them." The MIT students said the Longfellow kids also gained much exposure to the field of civil and environmental engineering. Ms. Mohr feels that the only way to make young children appreciate the complexity of the environmental challenges which face

society is by teaching them early on.

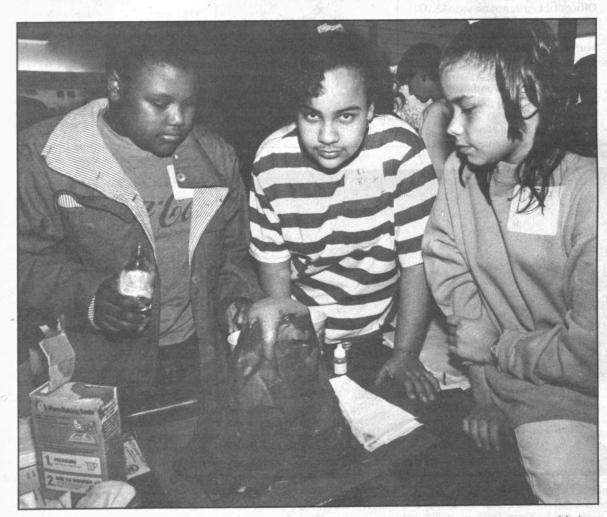
The MIT students say the class should be continued and that perhaps it could serve as a model for other departments in the School of Engineering and the School of Science.

Ms. Lee noted that about 30 percent of the students in 1.993 are contemplating careers in teaching. She is not among them however. Graduate school is ahead for her, Ms. Lee said.



SLICK HELP—Mark Cochrane, '95, uses Sea Sweep to absorb oil in a tank in which an oil spill was simulated to show fifth graders at the Longfellow School how it could help. Nicole Pina is at right, helping. Photo by Donna Coveney

OIL SPILL TALK—Senior Paula Lee speaks to a fifth grade class at the Longfellow School in Cambridge about oil spills and what can be done about them. Photo by Donna Coveney



CAMBRIDGE-WIDE



More than 100 fifth to eighth graders representing 10 Cambridge elementary schools converged at the Student Center last Thursday afternoon for the first MIT/Cambridge Science Day.

The event was also Cambridge's first elementary-school science fair at the city level. * interviewed the participants about their projects. "It was kind of a chance for the kids to show off their work," said David Harris, an MIT junior in electrical engineering and computer science and a coordinator of the event. Mr. Harris noted that a total of about 60 MIT students helped out during the day. Science Day was meant to encourage youngsters at a critical age to continue pursuing science. The event was organized by MIT's Educational Studies Program and is also part of City Days, a cooperative effort between MIT and the Cambridge Public Schools to improve public education. The Educational Studies Program also organizes several other enrichment programs on the MIT campus for elementaryschool students and those in junior and senior high. City Days is a new project coordinated at MIT by MIT's Public Service Center in collaboration with many other MIT offices and the Cambridge Public Schools. This year City Days has organized numerous activities bringing together hundreds of MIT and Cambridge students. Science Day was also supported by donations from local stores including Toscanini's Ice Cream, LaVerde's Market, and the MIT Museum Shop. Elizabeth A. Thomson

HAVING A BLAST—With their Science Fair project on volcances (with which they even got to simulate an eruption—with baking soda) are, I-r; Bessie Wright, Melissa Castillo, and Daina Walsh, all seventh graders at Cambridge's King School. Photo by Donna Coveney

The students, the majority of whom had already won prizes in science fairs at their respective schools, spent the afternoon presenting their award-winning projects and taking part in a number of science-related activities around MIT.

These activities included a Chemistry Magic Show (organized by the MIT chapter of the American Chemical Society) and a slide show by Marc Abrahams, editor of the Journal of Irreproducible Results, which featured the latest dubious discoveries reported in that publication. (Mr. Abrahams was also Master of Ceremonies for the Science Day.)

In addition, students toured several MIT laboratories including the Artificial Intelligence Laboratory, the Plasma Fusion Center, and the National Magnet Laboratory.

Each participant received a ribbon for attending, a certificate for achievement in science, and an ice-cream certificate donated by Toscanini's Ice Cream. In addition, eight MIT undergraduates