

IN LIKE A LAMB—So far March has meant reasonable temperatures and a bit of thawing, as evidenced by the snow melting from this sign for the Ralph Landau Building. Photo by Donna Coveney

MONDAY NIGHT

Cambridge OKs CASPAR, MIT Campus Streets Pact

By Kenneth D. Campbell
News Office

The Cambridge City Council Monday night approved, 8-1, MIT's initiative to build a facility for the homeless in return for control of segments of three city streets and sidewalks along part of Vassar Street.

"A home at last. A home at last. A home at last!" said Richard M. Brescia, president of the Cambridge and Somerville Program for Alcoholism and Drug Abuse Rehabilitation (CASPAR), after the vote. CASPAR has been seeking a permanent home since 1974 and has been housed in temporary trailers on MIT's land at 240 Albany Street since 1979.

"I'm absolutely grateful to President Vest for his gracious offer, to Mayor Reeves for appointing such a

dedicated commission, and to the council for offering us the chance for a new day in Cambridge," Mr. Brescia said.

The vote came three weeks after MIT President Charles M. Vest wrote the city councilors, offering to build CASPAR a 12,000 square foot, 55-bed facility on the land at 240 Albany Street. CASPAR will have a 20-year renewable lease on the land at \$1 a year. The proposal is estimated to cost MIT \$1.8 to \$2 million.

The Feb. 8 initiative brought an affirmative same-day response from the three city councilors on the nine-member Special Committee on CASPAR Siting Team. Councilors Jonathan Myers (chair), Sheila T. Russell and Alice Wolf wrote President Vest, "We particularly hearken to your words emphasizing 'a new era in town gown' (continued on page 4)

\$48M EXPECTED

Fusion Research Gets Major Grant

The Plasma Fusion Center (PFC) has received first-year funding of \$7 million from the Department of Energy under a five-year cooperative agreement that will provide an estimated \$48.5 million in total support for the development of fusion technology.

The agreement covers 15 subtasks designed to advance critical technologies for an engineering test reactor such as the International Thermonuclear Experimental Reactor (ITER), and to develop a vision for future commercial reactors. The tasks will build on previous studies and experimental work done

at the Center and will carry out the work in the context of the various national design activities.

The period of the agreement is intended to parallel the proposed six-year Engineering Design Activity (EDA) phase of the ITER project with participants in the US, the European Community, Japan and Russia, who signed an international cooperative agreement last July.

The goal of the ITER EDA is a test facility design that would, if built, demonstrate the basic scientific and technological feasibility of fusion energy.

The design activity will be carried out at three centers in San Diego, Naka, Japan; and Gerching, Germany. Professor Ronald R. Parker, director of the PFC, is on leave from MIT to serve as deputy director for ITER and head of the Garching ITER co-center. Dr. Richard Thome, head of the fusion energy and technology division at the PFC, is also on leave from the Center and will serve as the head of the Magnetics Division at the ITER co-center in Naka.

The Development and Technology Program is headed by Dr. D. Bruce Montgomery, associate director for engineering and technology. The development of superconducting materials and conductors is one of the program's activities. The ITER Magnetics R&D program is the largest co-center of the agreement, with ITER-related base technology and general base technology in the areas of gyrotron development, reactor studies and safety studies on ITER diverter development as the other major task groups supported by this agreement.

MIT's PFC has one of the nation's broadest research programs to investigate the physics and engineering aspects of magnetic fusion. It is recognized as one of the world's leading university research laboratories in confinement fusion and plasma research, with its research programs producing significant results on several fronts, including major confinement results on the Alcator series of tokamaks.

The objective of this latest agreement with the DOE is to advance technology to a point that will allow ITER to decide on a construction phase and to make advances in such necessary technologies as conductors and materials development and computer code development.

7 ADMINISTRATIONS

Clinton Plans to Name Deutch to DOD Post

President Clinton has announced his intention to nominate Professor John M. Deutch of MIT to hold a key technology post as Under Secretary for Acquisition in the Department of Defense.

In that post, Professor Deutch, former MIT provost and a chemist widely known for his work in science and technology policy, would head the DOD's technology and acquisition activities. He would be the third ranking officer of the Department, reporting directly to Les Aspin, the Secretary of Defense, and the Deputy Secretary of Defense.

If confirmed, Professor Deutch will have major responsibility for weapons acquisition, technology development, and economic conversion.

From October 1977 to March 1980, Professor Deutch was on leave from MIT at the US Department of Energy, as director of the Office of Energy Research (1977-79), as acting assistant secretary for energy technology (January-June 1979), and as under secretary of the Department (August 1979-March 1980).

Professor Deutch also would serve in his seventh presidential administration, having held advisory or consulting posts in the administrations of Presidents Kennedy, Johnson, Ford, Carter, Reagan and Bush.

Professor Deutch was given the rank of Institute Professor at MIT in 1990. The title recognizes distinguished accomplishments in scholarly, educational, service and leadership pursuits. There are usually no more than 12 active Institute Professors on the MIT faculty.

Professor Deutch's research interests include non-equilibrium statistical



John Deutch

mechanics, structure of fluids, dielectric and magnetic relaxation, light scattering and polymer theory.

As MIT provost, Professor Deutch was the Institute's chief academic officer from 1985 until October of 1990, when he returned to teaching and research in the Department of Chemistry. He was dean of the MIT School of Science at MIT from 1982 to 1985 and headed the Department of Chemistry in 1976 and 1977.

He served as a member of the President's Nuclear Safety Oversight Committee (1980-81) and of the President's Commission on Strategic Forces (1983-84).

Professor Deutch was a member of the Army Scientific Advisory Panel (1975-77) and served on the Defense (continued on page 4)

IN BRIEF

MAKE A GIFT

The Technology Community Association/Red Cross spring blood drive will begin Friday, March 5 and run through Friday, March 12, including Saturday, March 6. Hours are 10am-3pm except for Wednesday, March 10 (1-6pm) and Friday, March 12 (noon-5pm). All members of the community are encouraged to contribute.

APPLY NOW

Though it's barely March, applications for summer Day Camp are available at the du Pont equipment desk, Alumni Pool and in the Day Camp office, Rm W32-123. If you cannot pick up a form, leave your name and address at x3-2913 and one will be sent. Day Camp will have four two-week quarters beginning June 28 and ending August 20.

SAT PREPARATION

Registration for an SAT preparation program run by the MIT Educational Studies Program will be held Sunday, March 7, at 2pm. Interested students should come to 77 Mass. Ave. and follow the signs to the registration room. The program will be held Sunday afternoons March 14 to April 25. For more information call x3-4882.

AT&T, DEC, MIT

Consortium to Develop Information Highway

AT&T, Digital Equipment Corporation and MIT have formed a precompetitive consortium on wideband (high-capacity) all-optical networks—high-speed "information highways."

The Wideband All-Optical Networks Consortium will address the challenges of using the evolving high capability of optical-fiber technology to enhance the national information infrastructure, adding a "super-highway" that will provide flexible transport, common conventions and common servers.

Such an enhancement would allow access by multi-gigabit (billion-bit)-per-second computer networks and would transport their combined data streams, reaching terabits (trillions of bits) per second of capacity.

The consortium, which will receive \$8.4 million in funding from the Defense Advanced Research Projects Agency (DARPA), will study the architecture of all-optical networks, advance the relevant technology and construct an extensive test-bed system.

AT&T, Digital and MIT have had longstanding interests and demon-

strated commitments in communications, networks and optics. Each brings with it a substantial research and development program in networks and/or optical communications. By working together, sharing expertise and resources, consortium members say they expect to speed the development of high-performance information highways.

"The test-bed will form a proof-of-concept demonstration of a universal, scalable, optical network and will provide a common forum in which the interactions of applications, architec-

ture, and technologies may be investigated," said Vincent W.S. Chan, consortium director and leader of the MIT team. Dr. Chan is also associate head of MIT Lincoln Laboratory's Communications Division.

"Our long-term goal is to pursue the research and development of the technology, architecture and applications necessary to build such a network," he said. "Our more immediate goal is to determine how these challenges can best be met and to demonstrate that capability in a manner that can be fur-

(continued on page 4)

GLOBAL NOTE

Ronald Prinn to Hold TEPCO Professorship

A \$5 million contribution from Tokyo Electric Power Company (TEPCO) has endowed a professorship at MIT and established the TEPCO/MIT Joint Global Environmental Research Program. TEPCO, the world's



Prinn

largest private utility company, serves the Kanto area of Japan, including Tokyo.

Dr. Ronald G. Prinn has been selected as the first holder of the TEPCO Professorship. Dr. Prinn is the internationally

respected atmospheric and planetary chemist who directs MIT's Center for Global Change Science.

MIT Provost Mark S. Wrighton, who made the announcement, said the TEPCO contribution would be of great help to the Institute in its efforts to seek solutions to "immense global environmental problems which have long time horizons."

Research in the TEPCO/MIT Program at the outset is expected to focus on three main areas relevant to global change:

- Integrated studies of the science and policy of global change, including evaluation of emission controls on the energy industry and the role of utilities in improving the global environment.

- Scientific investigation of the global climate with an initial emphasis on the role of the ocean circulation.

- An investigation of whether a technology can be developed to turn carbon dioxide into an alternative fuel.

Professor Wrighton chairs the MIT Council on Global Environment, which coordinates MIT's environmental research agenda. Other recent commitments to MIT for environmental studies include a \$1 million grant from Exxon Corporation (Dallas, TX) for

the MIT Joint Program on the Science and Policy of Global Change and a \$3 million gift from The Martin Foundation (Elkhart, IN) to fund a research fund and professorship in environmental studies.

The Council will be the leadership group connecting TEPCO representatives and MIT scientists in pursuing a mutually interesting array of research projects. Professor Wrighton will select the specific research projects to be supported under the joint TEPCO/MIT program after soliciting suggestions from the MIT community and receiving suggestions and comments from TEPCO and from the MIT Council on Global Environment.

Professor Prinn, a faculty member at MIT since 1971, focuses his research on a study of the chemistry, dynamics and physics of the atmospheres of Earth and the other planets and on the chemical evolution of the atmospheres. In addition to serving as director of the MIT Center for Global Change Science, he is co-director of the MIT Joint Program on Science and Policy of Global Change.

Professor Prinn is the principal investigator for the NASA-supported Global Atmospheric Gases Experiment (GAGE), which has measured continuously since 1978 the global rates of increase of the concentrations of trace gases involved in the greenhouse effect and ozone depletion. He is currently the chairman of the Steering Committee for the International Global Atmospheric Chemistry Program of the International Council of Scientific Unions (ICSU) and a member of NASA's Space Science and Applications Advisory Committee.

Professor Prinn holds the BSc in chemistry and pure and applied mathematics (1967) and the MSc with first class honors in chemistry (1968), both from the University of Auckland, New Zealand, and the ScD in chemistry (1971) from MIT.



MINI MOTORS—Representatives from Ford Motor Company visited Professor Harry West's 2.70 class (Introduction to Design) last week to meet students whose hands-on undergraduate experience in design will benefit by a \$36,000 donation Ford is making in collaboration with BGAM, which in itself is a collaboration of Robert Bosch, the German electronics firm, and General Electric. Professor West, second from right, said the funds are being used to purchase electric motors for the mechanical engineering subject. It's likely that some of the students using the Ford-supplied motors will eventually be working for the automaker. Last June Ford was the single largest recruiter of mechanical engineering students. Mechanical engineering sophomores Rebecca Fahrmeier and Daniel Quintanilla joined the Ford representatives, Tom Logar, left, a Sloan Fellow in 1985, and Mark Critz, technical planning manager in Ford's climate control division. Photo by Donna Coveney

PROJECT HEADLIGHT

IBM Grant to Aid K-12 Program

IBM has awarded a \$650,000 equipment and software grant to MIT as part of the company's program for "Improving K-12 Education through Innovative Uses of Information Technology."

The grant to the Learning and Common Sense Section at MIT's Media Laboratory will enable a major upgrade of personal computers and software for Project Headlight at the James Hennigan Elementary School in Boston.

Project Headlight was established as an alternative model for use of

computers in schools in 1985 under the vision and direction of Professor Seymour A. Papert of the Media Laboratory and his MIT research team, in collaboration with the IBM Education Group in Austin, TX, and the Boston Public School System. Dr. Papert is the LEGO Professor of Learning Research at the Media Laboratory.

His theory of Constructionism advocates educational environments in which children learn by designing and building artifacts, which might take the form of a computer program, a robot, a multimedia display or a video game. The Media Lab research has combined computers and telecommunications to create new media for playful explorations controlled by students.

Constructionism also recognizes that students and teachers have varied learning and teaching styles; certain uses of technology are better able to personalize the learning and teaching processes.

For the past seven years, Project Headlight has been a model for computer-based learning and teaching that is on the cutting edge of educational research. The grant from the IBM Education and University Relations Division will upgrade the project's hardware and software from PCjr's to 125 PS/2 Model 25-386 with the appropriate servers, printers and network software, facilitating multimedia programming, complex learning projects, and more general data sharing among participants.

GEM FELLOWS

17 Receive Funds for Graduate School

Seventeen MIT undergraduates have received 1993 fellowships for graduate study from the National Consortium for Graduate Degrees for Minorities in Engineering and Science (GEM), Isaac M. Colbert, associate dean of the Graduate School, has announced.

The MIT recipients represent 7.6 percent of the 223 Engineering Master's Fellowships that were available from the GEM consortium this year.

"In the past four years, MIT students have been exceptionally successful in competing for these fellowships and MIT has been successful in enrolling many of the recipients in our graduate programs," Dean Colbert said.

He said 58 students have received fellowships since 1990, and 36 GEM fellows have studied or are studying at MIT. Altogether, MIT has enrolled 126 GEM fellows as graduate students.

Additionally, he said, MIT is among the most successful of the 68 GEM member schools in graduating its GEM fellows. In the 17-year history of the program, MIT had achieved a 94 percent completion rate through June of 1990.

"Only nine other participating universities can boast an equal or better record," he said. "Among those, only the University of California at Berkeley, at 95 percent, and Cornell, at 97 percent, are not predominantly mi-

nority institutions."

"The GEM program, of which MIT was a founding member, is one of the few national fellowship programs to actually increase the pool of minority students who are eligible for admission to graduate programs," Dean Colbert said. "Until recently, the program focused exclusively on funding minority students for master's degrees in engineering. Since 1990, however, there have been doctoral funds available in both science and engineering."

Of 18 GEM fellows currently study at MIT, four are doctoral fellows—two each in science and engineering.

The master's fellowship provides tuition and fees, a \$6,000 annual stipend, and paid summer employment with a GEM member company. Doctoral fellows receive a \$5,500 tuition allowance plus a \$12,000 annual stipend. At MIT, both fellowships are supplemented by departmental funds, usually in the form of research or teaching assistantships and, as appropriate, by centrally managed funds through the Graduate School office.

The following MIT juniors and seniors received 1993 Engineering Master's Fellowships:

Monica C. Arozarena, Griffin L. Davis, Cheryl D. Jordan, Portia R. Lewis, Remigio M. Perales, Yvonne R. Venzen, Malcolm Casselle, Claire L. Hypolite, Aria E. Landstrom, Alexander E. Long, Juan D. Ramos, Laurence O. Ward, Garvin H. Davis, Mary E. Johnson, Dale L. LeFebvre, Barbara M. Nichols and Melanie Rodriguez.

STORY IDEAS WELCOME

Thomson Promoted In News Office

Elizabeth A. Thomson, assistant editor of MIT Tech Talk and News Office staff writer since 1988, has been promoted to the position of assistant director for science and engineering news.

In her new position, she will be the lead News Office writer communicating MIT science and engineering research and teaching developments to the public through the news media and MIT Tech Talk.

Ms. Thomson commented, "I welcome story ideas from MIT faculty and researchers, whether they are based on interesting results being published in journals, or simply an area of research or teaching that the researcher is excited about and that might be of interest to the public." She can be contacted at x8-5402 or via e-mail, <thomson@mit.edu>.

Kenneth D. Campbell, director of the News Office, said in announcing the appointment, "For the past year, the major part of Elizabeth Thomson's responsibilities has been covering science and engineering news. She recently

initiated a new feature in MIT Tech Talk, 'Notes from the Lab.'"

"Her appointment implements a News Office plan to increase the coverage of science and engineering news at MIT. Associate Director Robert C. DiIorio, who has covered engineering and science news at MIT since 1973, will serve as managing editor for science and engineering news. He will coordinate the work in that area of all News Office staff, particularly the three science and engineering reporters: Mr. DiIorio, Ms. Thomson, and Ms. Thomson's successor in the position of staff writer and assistant editor of MIT Tech Talk."

Mr. Campbell said a search to fill that position is under way.

Ms. Thomson has been a staff member at MIT since 1985. Before joining the News Office, she was a technical editor in MIT's Ceramics Processing Research Laboratory, editing articles written for professional journals by researchers in the Department of Materials Science and Engineering. She also edited and produced quarterly 150-page research summaries for the laboratory.

Ms. Thomson graduated from Cornell University in 1984 with a B.S. degree in biology. She is a member of the National Association of Science Writers.

Litster Receives Langmuir Award

Dr. J. David Litster, vice president and dean for research and professor of physics, has been awarded The Irving Langmuir Prize in Chemical Physics by The American Physical Society.

He will receive the \$10,000 prize for his pioneering experimental and theoretical studies of phase transitions in unusual states of matter, using primarily light scattering and high resolution X-ray scattering. Much of the work was carried out in collaboration with Dr. Robert J. Birgeneau, dean of the School of Science and Cecil and Ida Green Professor of Physics.

Litster

The prize, established in 1964 by the General Electric Foundation, is given to recognize and encourage outstanding interdisciplinary research in chemistry and physics in the spirit of Irving Langmuir, a noted scientist. It is for research in the fields of chemical physics or physical chemistry carried out within the 10 years prior to the award.

Dr. Litster, who received a bachelor's degree in engineering from McMaster University in Hamilton, Ontario, Canada, and the PhD in physics from MIT in 1965, joined the MIT faculty in 1966. He has been director of both the Center for Materials Science and Engineering and the Francis Bitter National Magnet Laboratory.

He is a fellow of The American Physical Society and of the American Academy of Arts and Sciences.

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

Sony Betamovie camera (BMC-200), 2 four-hr batteries, recharger, filter, prof. Sony hard carrying case, mint cond, only used 1 wknd, \$550 or bst. Steve, dorm x5-7222.

Ski racks, 3 sets (sm, med, standard) for cars w/ rain gutters, all v gd cond, keys incl, best offer for any or all. Call 566-1323 lv mssg.

Magnum Acoustic guitar w/case, \$60. Jeff 492-5425.

Queen sz mattress & boxspring, \$200. Tony x3-3922.

Brand new Sony CD compact player Model D-202, still in package, complete w/earphones, a/c adaptor, batteries, charger & your choice of 4 CDs, \$209 or bst (retail \$329). Call 286-3336 lv mssg.

Judo Gi, sz 4, \$25; rollerblades & pads, sz 9, \$25; combat boots, black leather, sz 9, \$25; prices negot. Call dorm x5-6691.

Game Boy System, incl Game Boy, carrying case, 16 games, game holders, manual, player guide, 2-player cord, 4 rechargeable AA batteries, 2 GB comic books, \$350 or bst. Bill Parkin x3-6506.

Draper Lab Memorial 3-day trip to Montreal, \$169 pp dbl. Norm, Draper x8-3282.

Ski boots, W's sz 9, Alpina, unused. Call 861-9472.

Hewlett-Packard Laserjet III, plus hdwr for Mac hookup, like nw, only 1800 pages printed, \$1000 firm. Eric 623-8793.

Futon single bed w/cover, \$100. Jan Blair, Draper x8-2843.

Endirons, brass, \$65; 2 leather chrs, Norwegian, \$175 ea; 2 desk chrs, \$25, \$35; 4 teak upholstered sidechairs, new, \$55 ea; misc downhill & x-c equipment. Call x3-3175 or 332-8251.

Bassett cherry double/queen-sz headboard & footbd, brand new in boxes (Rolling Estates Collection), \$300 or bst. Thomas Sullivan x3-7287.

Mac SE 1/20 w/mouse, ext keybd & Imagewriter II printer, two 800K disk ports, system 6.04, everything works, ask \$600 or bst. Nan x3-1574.

Dining room set, 6 chrs, table extends to 8', china cabinet & buffet, immaculate cond, \$3K new, ask \$700. Call 489-4353.

Energy-saving portable radiator w/anti-freezing thermostat, only used 1 season, pd \$60, ask \$35. Call x3-6862.

Hiking boots, M's sz 10 1/2, heavy brushed brown leather, Italian-made, EC, \$35; Woolrich parka, medium gray, plaid wool lining, M's L, EC, \$45. Tim x3-1670 or 547-0447 lv mssg.

■ ANIMALS

Rabbit available free to gd home, 18 mos old, v cute & extra clean, ownr leaving US, all equip incl (cage, water bottle, food, etc). Rob x3-2690 or 776-4512.

■ VEHICLES

1985 Dodge Caravan, brown, FWD, 70K, 2.6L, ps, pb, roof rack, no rust, garaged, v reliable, \$3300 or bst. Bill, Linc x0319.

Cambridge OKs CASPAR, MIT Campus Streets Pact

(continued from page 1) relations.' We believe that such a new era is not only desirable but within our reach."

At the March 1 City Council meeting, Councilors Myers, Wolf, Russell and Mayor Reeves publicly praised Dr. Vest and MIT. "The offering of 240 Albany Street by Charles Vest was an important breakthrough," said Councilor Myers.

"MIT has a marvelous president in Charles Vest. And that is really something!" said Mayor Reeves.

Councilor Timothy Toomey of East Cambridge, who urged that the vote be delayed until March 15, voted against the proposal.

Ronald P. Suduiko, assistant to the president, said, "I'm proud of MIT and the community leaders for forging a solution to this difficult problem. ... I'm pleased to have worked with people to bring this to a successful conclusion."

In exchange for MIT's public service of building the CASPAR facility on MIT land and leasing it to CASPAR for \$1 a year for a 20-year renewable lease, (1) the City will transfer ownership to MIT of the campus segment of Amherst Street west of Massachusetts Avenue; (2) MIT will lease the sidewalks of Vassar Street west of Massachusetts Avenue to Audrey Street at the Westgate apartments for landscaping and a bikeway easement, change the parking arrangement from diagonal to parallel parking, and maintain the present two 12-foot automobile lanes; (3) MIT will lease Carleton Street with an easement for a combination of two pedestrian bridges and/or tunnels; (4) MIT will lease Hayward Street with an easement for either a pedestrian bridge or a tunnel, a pedestrian walkway, and closing of the street.

MIT will pay the city \$3 a year for the 20-year, renewable leases on Carleton, Hayward and Vassar. The

1987 Honda Accord DX, 100K mileage, automatic, cruise control, AM/FM/cass, a/c, new brakes, exc cond, \$3600 or bst. Ko x3-7465.

■ HOUSING

Arlington: charming 7-rm Tudor for sale, 3BR, 2b, fin bsmt, spac yd, fp/c, hdwd flrs, quiet nrhhd w/ other MIT profs, \$229K. Rick x3-5236.

Back Bay, Marlborough St: lovely 1BR 3 blocks from Public Garden, 5th fl in quaint bldg w/ quaint elevator, skylts, detailing, best loc in Back Bay, \$750. Kathy x3-4422.

Boston, St. Botolph St.: studio for rent now, gd connection to MIT via Bus #1 and/or Green Line, \$525/mo all incl, one mo rent free. Call 225-2578.

Jamaica Plain: 1BR, on 3rd fl w/ht, nr Green line & buses, \$500/mo. Call 522-2602.

Newton/Auburndale: 2BR, 1st fl, 2-fam prkg, hdwd flrs, nr T, 12 min to Boston, no pets, Mar 1, \$900+, sec dep. Call 617-332-7152 aftr 6pm.

NH seacoast: spac cottage at private beach, across st from oceanfront, 4BR, 1b+ outside shwr, 3 porches, July 3-31, \$750/wk. Call 933-7165 aftr 6pm.

■ WANTED

Vocalist (MIT employee, Wellesley alum) sks musicians for GB gigs (wedding receptions, parties, etc), jazz, lt rock, show tunes, torch songs. Call 433-7114 lv mssg.

■ ROOMMATES

Arlington: sk 2F/M to shr 4BR apt, lrg LR/DR/ kitchen, non-smkr, no pets, nr T & Rt 2, avail 4/1, \$300+. Call 641-3728.

Inman Sq, Somerville: Roommate wanted to shr apt w/3M, close to Harvard & Central Sq, lease until Aug 31 or longer, \$300+, negot. Marcello or Carlos, 666-4094.

■ MISCELLANEOUS

Do you have light or heavy typing to be done at home? If so contact Charlene Gross, E19-429, x3-2776.

Editing, word processing, IBM-PC, 15 yrs MIT experience, theses, papers, etc. Marie x3-3490 or 547-1311.

easements will be granted in perpetuity within 60 days on Carleton and Hayward Streets.

On Vassar Street, the easements will be granted within 20 years or upon MIT's conveyance of an easement on 75,000 square feet of MIT land parcels involved in a 1988 agreement to construct the Waverly Street connector through MIT's property. This agreement includes the eventual demolition of 38 Henry Street, which is currently leased to Polaroid.

Ten persons spoke in favor of the agreement, and eight opposed it. Those favoring the move included two Cambridge residents who work at MIT, Patricia McCosco and Jennifer Combs. Others who spoke in favor included three members of the CASPAR board—Judge Lawrence Feloney, Mr. Brescia, and Bruce Houghton.

Opposing the agreement were a number of Cambridgeport residents, including Bill Cavellini, Cathy Hoffman, Bob LaTremouille, Geneva Malenfant, and Bill Noble.

Bob Boulrice, a Central Square resident who had opposed the previous MIT initiative of siting CASPAR at 380 Green Street, was a member of the CASPAR Siting Committee who spoke in favor of the agreement.

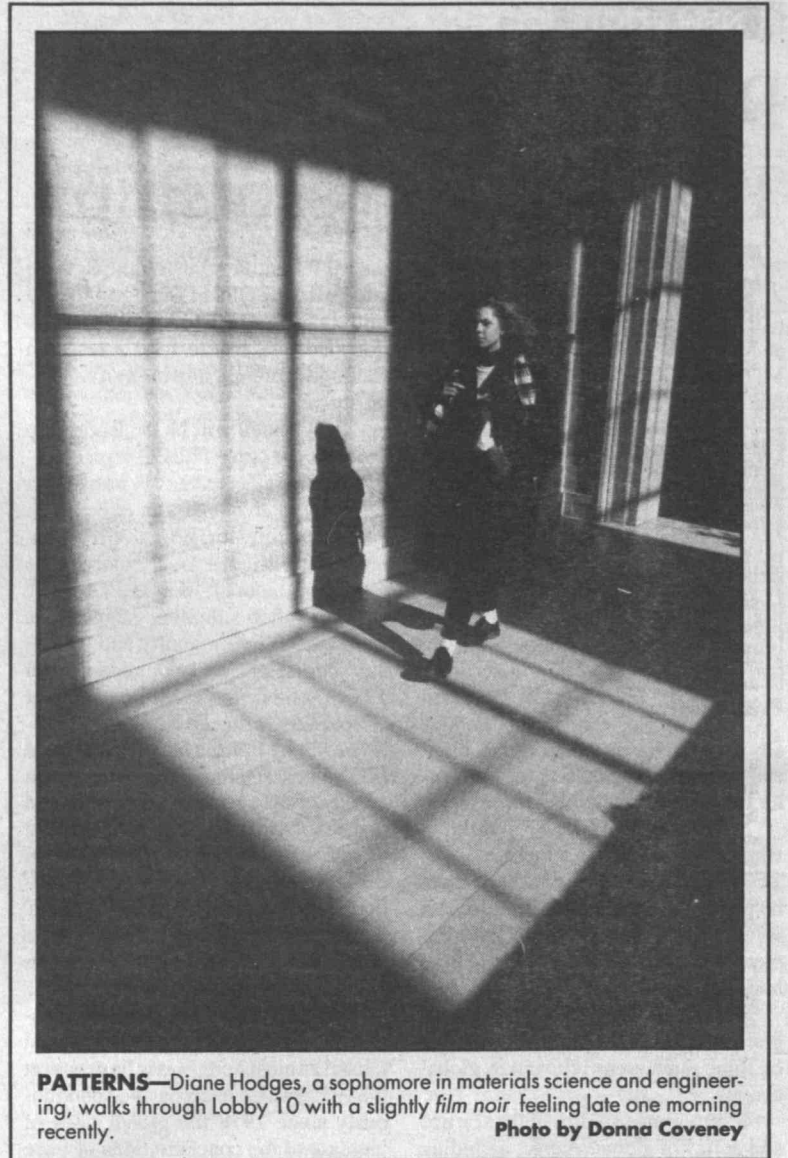
"We truly hope that this is a new day in MIT-City relations," he said.

Information Highway Consortium

(continued from page 1) ther developed, engineered and produced by this country's communications and computer industries."

The test-bed will provide a near "real-world" environment in which network hardware, terminal equipment, protocols, algorithms and services can be rapidly developed, tested and demonstrated.

Alan Kirby, who heads the Digital team, said, "We envision this project being an important step toward providing a very high-performance, flexible network infrastructure that will result in a whole new generation of exciting applications." Mr. Kirby is Digital's Networks Engineering Advanced Development Manager. "In addition to making these new applications eco-



PATTERNS—Diane Hodges, a sophomore in materials science and engineering, walks through Lobby 10 with a slightly *film noir* feeling late one morning recently. Photo by Donna Coveney

nically feasible, the new networks will support existing networking applications and technologies," he said.

In an all-optical network, information is transmitted in optical form from source to final destination, rather than being converted to electronic form for regeneration and switching along the way. All-optical techniques are expected to provide the framework for a large variety of wideband services in more flexible and cost-effective way than can be provided by today's optical networks.

The leader of the AT&T team, Adel A. M. Saleh, said, "The three institutions that are members of the consortium represent a vertically integrated organization with expertise well suited for research and develop-

ment of wideband optical networks. American global competitiveness in this area is very important and we plan to report to US industry on technological advances by the consortium." Mr. Saleh is head of the AT&T Bell Laboratories Interconnection Research Department.

The grant is jointly managed at DARPA by Bertrum Hui, Defense Science Office, Paul Mockapetris, Computing Systems Technology Office, and Andy Yang, Microelectronics Technology Office.

Mr. Yang said, "The test-bed will not only demonstrate the functional feasibility of this network concept but also test the effectiveness of consortia in fostering technology transfer from laboratory to marketplace."

Deutch Appointment Expected

(continued from page 1) Science Board (1975-91). He was reappointed to the Defense Science Board in 1992. He was a member of the White House Science Council (1985-89). In August of 1990, he was appointed by George Bush to serve on the President's Foreign Intelligence Advisory Board.

Professor Deutch, 54, was born in Brussels, Belgium, July 27, 1938. He came to the United States as a small child with his family and has been a US citizen since 1946. He grew up in Washington, D.C.

In 1961 he received both the BA degree in history and economics from Amherst College and the SB (bachelor of science) degree from MIT in chemical engineering through a joint Amherst-MIT program. His graduate work was done at MIT where he received the PhD in physical chemistry in 1965. He has received honorary degrees from Amherst (Doctor of Science, 1978) and from Lowell (Doctor of Philosophy, 1986).

A friend from their graduate school days at MIT is Secretary of Defense Aspin, who received the PhD in economics in 1966.

After receiving his doctoral degree from MIT, Professor Deutch spent a year as a postdoctoral fellow at the National Bureau of Standards in Washington. From 1966 to 1969 he was an assistant professor of chemistry at Princeton University. He joined the

MIT faculty in 1970.

Professor Deutch is a member of the American Academy of Arts and Sciences, the Society of Sigma Xi, Tau Beta Pi and Phi Lambda Upsilon. He is a member of the Trilateral Commission and an Overseer of the Boston Museum of Fine Arts. He has been a member of

the editorial boards of the Journal of Physical Chemistry and the Annual Review of Physical Chemistry.

In 1979, and again in 1980, he was the recipient of the Distinguished Service Medal of the US Department of Energy. He received the Department of State's Tribute of Appreciation in 1980.

3 Kennedy Scholars To Attend MIT

Three graduate students from Britain have received the prestigious Kennedy Scholarships to attend MIT starting this fall.

They are Daniel Andrews, a mathematics major from Oxford; Allan Gray, an electrical engineering, economics and management graduate from Scotland by way of Oxford; and Theresa Hutchings, a hydrologist from Cambridge University who will be joining the Department of Civil and Environmental Engineering.

The Kennedy Scholars are "Rhodes Scholars in reverse," said Professor Richard de Neufville, "in that are selected from the best students from Britain to come to either MIT or Harvard, just as the Rhodes Scholars are chosen from the best students from North America and elsewhere to go to Oxford."

Professor de Neufville, chairman of the MIT Technology and Policy Program, represents MIT on the board

of the Kennedy Memorial Trust, succeeding Dr. Paul E. Gray, chairman of the MIT Corporation.

Previous Kennedy Scholars at MIT include Professor Richard K. Lester of nuclear engineering, director of the Industrial Performance Center; Associate Professor Harry West of mechanical engineering; and Assistant Professor Andrew Whittle in civil and environmental engineering.

"The Kennedy Scholars have made significant contributions to MIT over the years, and we welcome the newcomers," Professor de Neufville said.

The Kennedy Memorial Trust, which awards the Scholarships, was established in 1966 by the people of Great Britain as a tribute to the late President of the United States John F. Kennedy. The Trust is also responsible for the upkeep of a memorial at Runnymede, where the Magna Carta was signed.

NEW BOOK OUT

Jill Ker Conway to Speak At Women's League Dinner

By Dee Ippen

MIT Women's League

Noted author, scholar and educator Jill Ker Conway will be the guest speaker at a dinner program, Thursday evening, March 18, at the Faculty Club, sponsored by the MIT Women's League and open to the MIT community.

Currently a visiting scholar and professor in the Program in Science, Technology and Society, Conway has also been topping literary best-seller lists since the December publication of the new book *Written by Herself*, an anthology of American women's autobiographical writings which she has edited.

The evening event is something of a departure for the Women's League, according to chairwoman Cleo Schimmel. "With so many women working during the day, we wanted to experiment with some evening programs in hopes that these women could attend," she said.

"We're delighted that Professor Conway was able to fit us into her busy schedule right now when her book is front and center with so many of our constituents," she added. A program earlier this year featured Tufts psychologist Zella Luria

Professor Conway became familiar to millions of readers through her acclaimed 1989 autobiography, *The Road from Coorain*, about her childhood on a sheep farm on the plains of Australia, tracing her story from her earliest education to her college years at the University of Sydney.

In the early 60's, she left Australia for the United States. She earned her PhD in history from Harvard, then taught for a decade at the University of Toronto, and in 1975 became the first woman president of Smith College, a post she held for ten years, until she came to MIT. Today she holds 26 honorary degrees from universities in the US and Canada.

Throughout her career, women's

education, opportunities and place in society have been at the heart of her work. She was an early and vocal proponent of academic—and compensatory—equality for female faculty. At Smith she opened college courses to older women and helped to establish the Society of Scholars Studying Women's Higher-Education History. Her publications reflect these concerns: *The Female Experience in Eighteenth- and Nineteenth-Century America* (1982), *Women Reformers and American Culture* (1987), *Learning about Women; Gender, Politics and Power* (1989). She is currently at work on an intellectual history of modern feminism.

The March 18 program—opening with a 5:30pm social hour, 6:30 dinner and 7:30 talk—is \$25 per person including dinner. Inquiries or reservations may be made by phoning Sis de Bordenave in the Women's League Office x3-3656.

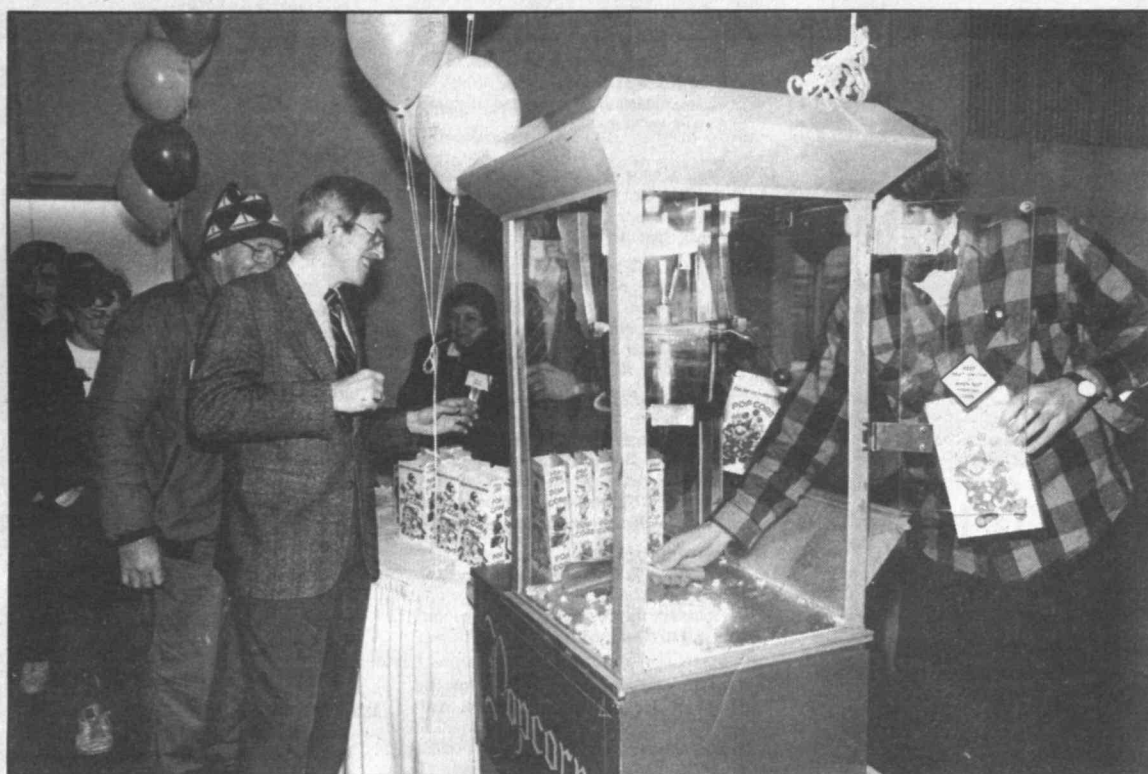
PEEER Issues New Calendar

A new publication in bright green ink, *The Environmental Calendar*, made its appearance on campus last week.

It will be a monthly publication of the Program in Environmental Engineering, Education and Research, listing as many environmental events as are known as of the deadline. The deadline is the 14th of each month.

PEEER is looking for meetings, lectures, seminars, workshops, brown-bag lunches, conferences, exhibits—anything that is environmentally oriented regardless of departmental affiliation. Future events with details TBA are also acceptable.

The Calendar will be circulated to the faculty and others on the Environment MIT mailing list. To join the mailing list, send your request—and, of course, any listings—to the editors, Rm 3-411F, x3-1357, or fax x3-7402.



Materials science professor Linn Hobbs grinned as he anticipated getting a carton of popcorn at the kickoff of MITAC's 10th anniversary celebration last month. Photo by Donna Covey

10TH ANNIVERSARY

MITAC Names Prize Winners

Special congratulations are offered to the three grand prize winners of MITAC's tenth anniversary lottery:

Velmer Brooks of the Plasma Fusion Center received the Thomas Cook/American Airlines Round Trip tickets for two.

Kenneth Donaghey of Physical Plant won the Omni Travel/Northwest Airlines Round Trip tickets for two.

James Pieronek of Lincoln Lab's Group 43 received the MIT Alumni/ae Travel Program's Colonial South Intercoastal Waterway Cruise for two.

Congratulations also go to the following MITAC prize recipients, whose names were chosen February 19 (at Lincoln Lab in Lexington) and February 26 on campus, in the MIT Activities Committee's anniversary celebration.

The February 19th prize winners were:

Elizabeth Andrews, Peter Buehler, James Cappucci, Joanne Chute, Ralph Cook, Denise Cormier, Julie Eastman, Susan Foster, Robert Gates, William Gianci, Robert Grappel, Patricia Grimes, Christopher Harris, Johanna Hayes, David Kassay, Carol Lazott.

Also Denise LeBlanc, Renee Lesperance, Marie McTighe, Judith Mangan, Frank Mucci, Bobba Ratnaleela, Edward Rolfe, Gayle Sherman, Arnold Sheinfeld, Don Sousa, Blanche Staton, Gretchen Sullivan, Diane Valcourt, Vickie Varsos, Stephen Ward, Wendy Weber and David Wynne

The February 26th winners were: Nicole Assarian, Kendra Borgmann, M. Linda Brown, Priscilla Caissie, Gerbrand Ceder, Robert Clifford, Linda Cuccurullo, Dana Dedek, Randolph DiSanto, Vachiraphorn Lee Finnegan, Susan Fitzgerald, John Foster, Daniel Fouche, Eulogio Gallardo, Jacklene Griffith.

Also Elizabeth Kintigh, Elaine Healy, Arlyn Hertz, Dorothy Howells, Gerald Johnson, Philip Lee, Michael Leonard, Barbara Lobbregt, Ping Lee, John McCrillis, Denise Meehan, Ivars Melngailis, Joan O'Brien, James Reinhold, Carol Robinson, Michael Seibert Nancy Viens, Maureen Wolfe and Elizabeth Zubritsky

MITAC has prospered thanks to the dedicated efforts of the nearly 100 volunteers who have served on the committee over the past 10 years.

Special thanks to Diane McLaughlin, Dick Caloggero, and

Lease Plimpton who helped with MITAC's 10th Anniversary festivities on campus and at Lincoln Laboratory, and the current committee members who are not only responsible for planning monthly MITAC events, but also have been instrumental in planning the 10th Anniversary Celebration.

They are: Liz Mulcahy, convener; Theresa Auterio; Rose Bella; Mike Clifford; Alice Colby; Judi Donlan;

Mary Ann Donofrio; Joan Doucette; Steve Fairfield; Michelle Fiorenza; Terry Heyward; Skip Hoyt; Susie Kendall; Joe Kuchta.

Also Carol Manoli; Laurie McLaughlin; Pat McSweeney; Diane Monahan; Cheryl Nunes; Muriel Petranic; Pauline Phinney; Marion Redonnet; Lynda Reeder; Pat Russo; Karen Shaw; Marianne Taccini; Diane Betz Tavitian; Carrie Young.

Awards & Honors

Dr. Elizabeth J. Garrels, associate professor of Spanish in the Foreign Languages and Literatures Section, has been awarded the \$20,000 1993 Levitan Prize in the Humanities, Dean Philip S. Khoury of the School of Humanities and Social Science has announced.

Professor Garrels, a leading scholar of Latin American literature, will use the prize money to continue her research on *The Rhetoric and Paternalism: A Study of Samiento's Facundo*. She received her doctorate from Harvard University in 1974 and has been at MIT since 1979. Her publications include *Las grietas de la ternura: Nueva lectura de Teresa de la Parra* (1987) and *Mariátegui y la Argentina: Un caso de lentes ajenos* (1982).

The prize was established through a gift from James A. Levitan, a 1945 MIT graduate in chemistry, a member of the MIT Corporation and a senior partner in the New York City law firm of Skadden, Arps, Slate, Meagher and Flom. The prize, first awarded in 1990, supports innovative and creative scholarship in the humanities by faculty members in the School of Humanities and Social Science.

Previous recipients were Dr. Joshua Cohen, professor of philosophy and political science; Dr. Barry R. Posen, professor of political science; and Dr. Peter C. Perdue, associate professor of history and head of the History Section.

Dr. Merton C. Flemings, Toyota Professor of Materials Processing and head of the Department of Materials Science and Engineering, has been named to receive the Minerals, Metals and Materials Society's 1993 Bruce Chalmers Award, presented for outstanding contributions to the field of solidification science.

Dr. Flemings was cited for "original, pioneering contributions to so-

lidification, including macrosegregation, dendritic solidification, dendritic coarsening, eutectic solidification and rheocasting, which had a major fundamental and practical impact on the field."

Dr. Fleming's research and teaching concentrate on the engineering fundamentals of solidification processing and on innovations in materials processing operations. He is author or co-author of 250 papers, 26 patents and two books in the fields of solidification science and engineering, foundry technology and materials processing.

Three MIT students are among 25 college students nationwide awarded more than \$250,000 in scholarships from Microsoft Corporation. The scholarships, a number of which are targeted to students of promise among underrepresented minority groups, help educate and encourage students to pursue technically oriented degrees leading to opportunities in the computer industry. The MIT recipients:

Giovanni M. Della-Libera, a sophomore in computer science from Miami, FL, \$25,000 Microsoft Minority Scholarship. He was a member of the American Computer Sciences League national team, and was captain of the calculus team in high school.

David L. Harris, a junior in computer science from Ridgecrest, CA, \$10,000 Microsoft Technical Scholarship. He has published software and won first place in the Junior Basic Programming Division in 1987, the Judges' Choice Senior Division in 1988, and the Senior Basic Programming Division in 1989.

Mark E. Walters, a freshman from St. Thomas, V.I., \$25,000 Microsoft Minority Scholarship. He is a member of the Computer Hackers Association and the Science and Technology Club.

Sports at MIT

SQUASH

The squash team returned from last weekend's National Intercollegiate Squash Racquets Association (NISRA) tournament with both recognition and hardware. Senior Matt Trevithick of Toronto, Ontario, was selected to the All-America team. Trevithick, who played in the number one position all year for the Engineers, is only the second All-America in the history of the MIT program. As a team MIT won the Barnaby Award as the most improved team in the country. The squad finished the season ranked 14th nationally, a leap of eight spots from 1992's ranking of 22nd.

BASKETBALL

Freshman basketball player Keith Whalen has been named a first team Constitution Athletic Conference All-Conference selection. Whalen, a native of Londonderry, NH, led the Engineers in both scoring and rebounding and was the only first-year player on either the first- or second-conference team. Whalen also set the MIT freshman record for points scored, tallying 389 points over the course of the season. His mark breaks the record of Mike McElroy '87 who totaled 330 points in 1983-84.

TRACK & FIELD

Pole vaulter Matt Robinson and weight man John Wallberg were the only two Engineers to score points in last weekend's All-New England Track Championships. Robinson, a junior from Olympia Falls, IL, placed second in his event with a vault of 15'7". Wallberg, a freshman from Thief River Falls, WI, finished sixth in the 35-lb. weight throw with a toss of 51 feet. Freshman Matt Sandholm of Helena, MT, set an MIT freshman record in the 55-meter dash with a clocking of 6.59 seconds but did not place in the meet.

GYMNASTICS

Gymnast Julie Lyren finished third in the Eastern College Athletic Conference Division III Championship held last weekend at SUNY-Brockport. Lyren, a senior from Akron, OH, totaled 35.25 in the all-around. First-year student Janet Sollod of San Francisco, CA, finished in a tie for ninth with an all-around score of 33.45. The score is a personal-best performance by Sollod. As a team the Engineers finished sixth.

Roger Crosley

It's a Fact

The first human-made gene fully functional in a living cell was synthesized in 1976 at MIT by a group led by Nobel laureate Har Gobind Khorana.



The Arts

March at MIT

4 Thurs

Musicians of the Old Post Road
German sacred and secular cantatas by Hasse and Telemann. 12noon, Chapel.

4-6 Thurs/Sat

Twelfth Night, or What You Will
MIT Community Players present Shakespeare's fantasy. \$7, \$6 MIT community/seniors/children under 12; \$5 MIT/Wellesley students w/ ID. 8pm, Kresge Little Theater. 253-2530

5 Fri

Lunchtime Clarinet
Advanced Music Performance Student Recital by Dianne Ahmann (G), clarinet. Works by Cage, Lutoslawski, Rossini and Debussy. 12noon, Killian Hall.

List Center Opening Reception
A reception, 5-7pm for three new shows at the List Visual Arts Center (LVAC) through April 17. Artists Miroslaw Balka and Doug Ischar will attend.

Miroslaw Balka: Sculpture. Little-seen in the US, this 34-year old Polish sculptor makes abstract works in hard industrial materials, often containing soft organic materials that evoke the human body in the same way that a bed or a coffin calls up the human form.

Kenneth Goldsmith: 73 Poems. Text on paper compositions combining visual art, poetry, literature, and music. Goldsmith's words and phrases are chosen for their associative and suggestive meanings.

Doug Ischar: Orderly. A site-specific installation dealing with our country's cultural and political climates as they relate to the exclusion of gay men and lesbians from the US Armed Forces. His multi-media installations incorporate photography, film, video and text to examine the stereotypes within our cultural mythology.

Regular LVAC hours: 12-6, weekends 1-5; closed holidays. 253-4680

6 Sat

Gallery Talk
Informal talk by artist Miroslaw Balka. 2pm, List Visual Arts Center. 253-4680

Another Artist Speaks
Doug Ischar presents informal gallery talk. 3pm, List Visual Arts Center. 253-4680

MIT Chamber Orchestra
Steven McDonald, director. Hindemith's Five Pieces for Strings, Op. 44; Faure's Incidental Music to *Pelleas et Melisande*; Mendelssohn's Symphony No. 1 in C Minor. 8pm, Kresge Auditorium.

7 Sun

Joan LaBarbara Concert
Concert to complement Kenneth Goldsmith: 73 Poems exhibition at List Visual Arts Center (see exhibit description 5 Fri above.) 3pm, Bartos Theater. 253-4400

Bassoons Plague MIT
30th Anniversary performance of the Bubonic Bassoon Quartet. Founded in 1962 at MIT by John Miller '64, (Principal bassoonist of the Minnesota Orchestra, below); David Carroll, Crawford Best, Donald Rosenthal. Funded by the Peter De Florez Fund for Humor at MIT. 4pm, Killian Hall.



9 Tues

Architecture Lecture
"On His Work," by Juha Leiviskä, architect from Helsinki. 6:30pm, Rm 10-250. 253-4411

Artist Speaks
The Center for Advanced Visual Studies (CAVS) presents Keiko Prince speaking on environmental concepts. 7-10pm, W11 (40 Mass Ave). 253-4415

10 Weds

Live Jazz
No cover, ID required. 8:30-10:30pm, Muddy Charles Pub. 253-5050

11 Thurs

Poetry at MIT
Olga Broumas. Born in Syros, Greece in 1949, she published her first book there in 1967. Her first book in English, *Beginning with O*, was selected by Stanley Kunitz for the Yale Younger Poets award in 1977. Two later books of poems, *Sole Sauvage* and *Pastoral Jazz* were followed by two volumes of translation from the Greek poet and Nobel laureate Odysseas Elytis. She collaborated with Jane Miller on a prose poem, *Black Holes*, *Black Stockings*, and in 1989 published *Perpetual*. 7:30pm, Bartos Theater. 253-7894

Ariel Quintet in Chapel
Claire Nielsen, flute; Emily Gaberman, oboe; Rebecca Leonard, clarinet; Tracy McGinnis, bassoon; Ellen Donohue-Saltman, horn. 12noon, Chapel.

11-13 Thurs/Sat

"Women Making Scenes"
Shakespeare sonnets and scenes performed and directed by a cast of 16 women. 8pm, Kresge Rehearsal Room B. Katie Leo, 225-8175



11-14 Thurs/Sun

The Merchant of Venice
MIT's Shakespeare Ensemble, directed by Kermit Dunkelberg. \$7, \$5 MIT/Wellesley students. 8pm, Student Center Sala de Puerto Rico. 253-2903

12 Fri

Student Recital
Advanced Music Performance Student Michael Valdez (G), piano. 12noon, Killian Hall.

Works by MIT Affiliated Artists
Compositions by Charles Shadle and Kyle Hoepner. Kyle Hoepner, harpsichord; Charles Shadle, piano, and others. 8pm, Killian Hall.

Symphony Performs Bruckner
MIT Symphony Orchestra. David Epstein, conductor. Bruckner, Symphony No. 4. \$1 at the door. 8:30pm, Kresge Auditorium.

13 Sat

Logarithms Concert
All-student all-male a capella singing group known for harmonies and humor. With the MIT Muses. 7:30pm, Rm 10-250. Scott Rickard, 258-1532

MIT Jazz Bands Concert
MIT Festival Jazz Ensemble (James O'Dell, director), MIT Concert Jazz Band (Everett Longstreth, director). \$1 at the door. 8:15pm, Kresge Auditorium.

14 Sun

Hava Nagilla
17th Annual Israel Folkdance Festival, sponsored by MIT Hillel. Reserved seating: \$10/\$8; senior and group discounts available. 3pm, Kresge Auditorium. Information/reservations: 253-2982



Marek Zebrowski, Piano
MIT Affiliated Artist performs Bach-Bussoni's Chorale Prelude; Mozart's Sonata in C, KV 330; Chopin's Sonata in B Minor, Op. 58. 8pm, Kresge Auditorium.

Off Campus Exhibit Closes
Edward McCluney, Director, Student Art Association is part of a group show entitled: *African American Perspectives: The Lois Foster Exhibition of Boston Area Artists* at the Brandeis University Rose Art Museum, Waltham. Tues-Sun 1-5pm, Thurs 1-9pm. 736-3434

15 Mon

Novelist Isabel Allende
1993 William L. Abramowitz Lecture by Isabel Allende, best-selling author of *The House of Spirits*, niece of the late Chilean President Salvador Allende. 8:30pm, Kresge Auditorium. 253-4003

16 Tues

"Cheap Thrills"
Architecture lecture by Julie Eizenberg, MIT, architect from

Santa Monica. 6:30pm, Rm 10-250. 253-4411

Environmental Art
Three thesis graduate students of the CAVS MSVisS program present projects. 7-10pm, W11. 253-4415

Poetry Reading
Eugene Richie reads from his latest collection of poems, *American Fresco*. 7:30pm, Bartos Theater. 253-6475

17 Weds

Dance Lecture/Demo
Bill T. Jones/Arnie Zane Dance Company (below). Lecture/demonstration by the internationally-known choreographer. Sponsored by MIT Office of the Arts, Harvard Office of the Arts, MIT Dept of Foreign Languages and Literature, Office of Student Affairs, and the Gay and Lesbian Studies Program. Transportation from MIT will be available. 7:30pm, Agassiz House, Harvard University. 253-4003



Brass/Chamber Chorus
MIT Brass Ensemble, Lawrence Isaacson, director; MIT Chamber Chorus, John Oliver, director. 8pm, Kresge Auditorium.

18 Thurs

Renaissance Improv
John Tyson, recorder and Jacqueline Schwab, harpsichord. Improvisations on Renaissance songs by Bassano, della Casa, and Rognioni. 12noon, Chapel.

Women's League Dinner Talk
Jill Ker Conway (below), editor of *Written by Herself*. Guests welcome. \$25. Social hour 5:30pm; dinner 6:30pm, Faculty Club. Register at 253-3656



18-20 Thurs/Sat

More Merchant
See 11-14 Thurs/Sun above.

18- 3 Thurs/Sat

Alum Playwright Off-Campus
Itchin' for It by Owen Doyle '84 presented by Cicatrix Theatre Company. 8pm, Charlestown Working Theater, 442 Bunker Hill St., Charlestown. 242-3285 or 666-8443

19 Fri

Student Art Awards Deadline
Louis Sudler Prize — for seniors, presented for excellence in music, theater, painting, sculpture, design, architecture, or film. Laya and Jerome B. Wiesner Awards — two presented to students, living groups, organizations, or activities for achievement in the creative or performing arts. Send nominations to Mark Palmgren, E15-205. 253-2372

24 Weds

Live Jazz
No cover, ID required. 8:30-10:30pm, Muddy Charles Pub. 253-5050

25 Thurs

Spanish Songs of the Renaissance
Virginie Landré, mezzo-soprano. 12noon, Chapel. Please call to confirm. 253-2906

28 Sun

Museum Show Closes
Inside the Large-Small House: The Residential Legacy of William W. Wurster '17. Designs by the San Francisco Bay area architect who rose to prominence in the 1930s and 1940s. MIT Museum. See below for Museum information.

30 Tues

Holography Artist Speaks
The CAVS presents holographer Harriet Casdin-Silver. 7-10pm, W11. 253-4415

March 31

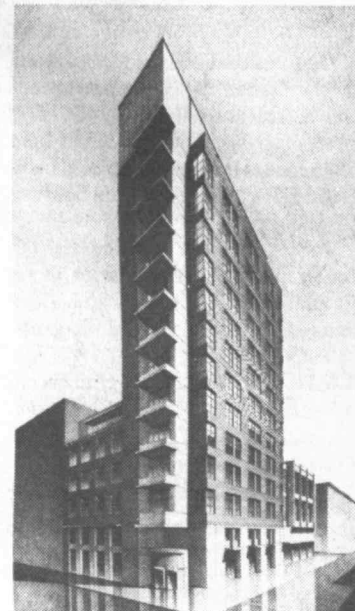
Theater Lecture/Demonstration
Development of character and actor training by Teresa Ralli, leading Latin American actress and member of Peru's Yuyachkani, Artists-in-Residence at MIT. Translated by Rosa Luisa Marquez. 3:30-5:30pm, Student Center Rm 407. 253-4003 or 253-5623

All Month

MIT Museum
Ongoing Exhibits: *MIT/CASEY*; *Crazy After Calculus: Humor at MIT*; *Doc Edgerton: Stopping Time*; *Holography: Types and Applications*; *Light Sculptures by Bill Parker*; *Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr.*; *MathSpace*.

MIT Museum, 265 Mass Ave. Hours: Tues-Fri 9-5, Sat-Sun 1-5. Requested donation: \$2. 253-4444

Compton Gallery
The Hudson Studio: BOULEVARD/ MANHATTAN (detail below). Located off Lobby 10. Weekdays 9-5. Information: 253-4444



Strobe Alley
Edgerton/Mili Photography Contest Prize Winners. 4th floor of Bldg 4. 253-4444

Hart Nautical Gallery
A Thousand Years of Voyages of Discovery — Exploring the Ocean from Surface to Seabed; *Boston Fisheries 1900-1920*. 55 Mass Ave. Weekdays 9-8. 253-5942

All events are free unless prices are noted. All concerts: 253-9800 unless otherwise noted. MIT Arts Hotline: 253-ARTS. Month-at-a-Glance is produced by the MIT Office of the Arts (253-4003) and ARTSNET. Celia Metcalf, design; Liz Ferry, production.

Notes from the Lab

A TEST FOR WATER-BORNE PATHOGENS

Every year in the US hundreds of thousands of people come down with gastroenteritis, diarrhea and other uncomfortable conditions because they were exposed to water-borne disease organisms.

Many of these people were exposed to the pathogens through eating contaminated shellfish or swimming in polluted areas. Public health officials would love to test for the critters and warn off unwary swimmers or close shellfish fishing areas, but they can't. Most of the culprits don't show up in standard tests.

Enter Richard Lewis, a graduate student in civil and environmental engineering. Mr. Lewis is designing a new test to detect these organisms. The method, which is relatively

cheap and fast, relies on a technique of molecular biology: polymerase chain reaction (PCR). In PCR enzymes are used to greatly amplify DNA present in a water sample. If DNA from pathogens of interest is present, PCR will produce enough that it can be easily detected.

In addition to great sensitivity—PCR can theoretically detect a single DNA chain in solution—the technique also allows researchers to test for multiple pathogens in one test tube.

PCR is not yet ready to move from the lab to the beach, but Mr. Lewis can see the day when kits will be available so any public health agency can test for these currently hidden germs.

SOLVING LINEAR PROGRAMS "FASTER THAN EVER"

For the past four years Robert M. Freund of the Sloan School has sought to develop algorithms for solving linear programs "faster than ever" and to understand their underlying mathematics more deeply.

Although the topic of linear programming may seem esoteric, its implications for the management sciences are, in fact, vast. Linear programming problems and models are pervasive in most economic

and scientific endeavors: manufacturing companies use the models to determine production scheduling, capacity expansion and crew scheduling; airlines use them for flight planning and crew scheduling; telecommunications firms use optimization models to configure and design their networks; and scientists use linear programs for such tasks as determining DNA sequence structures.

WEAK ELECTRIC FIELDS AND LIVING CELLS

Weak electromagnetic fields may, indeed, be able to cause responses in living cells, according to a physical model that two investigators have been working on.

Dr. James C. Weaver of MIT at the Harvard-MIT Division of Health Sciences and Technology is leading this work. The model shows that the smallest electric field effect that is not overwhelmed by ever-present thermal noise may be small (~10-4 V/cm).

This theoretical estimate does not prove that cells respond to low level

fields, but only that one common conceptual objection (the thermal noise limit) does not rule out low-level effects. Other types of noise in a biological cell's environment may be larger than thermal noise, and therefore predict a larger minimum field.

For this reason, the researchers' model does not make predictions concerning the long and heated controversy about possible biological effects of power lines, household wiring, and ordinary electrical appliances.

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>.

GREAT PICTURE

ILP, Italy Test Videoconferencing

The Industrial Liaison Program and the Italian Telecommunications Study Center and Laboratory (CSELT) got together last week for a half-hour conference at the new PictureTel facility of MIT Video Production Services in Building 9.

The experiment included full duplex simultaneous transmission of audio and video, as well as still video from MIT. Transmission of videotape is also possible.

MIT was broadcasting/receiving through a PictureTel system located at

the Center for Advanced Engineering Study headquarters while CSELT was using a system from an Italian vendor, AETHRA. Communication between the two systems was effected via a bridge supplied by ATT.

The experiment demonstrated the practicality of establishing video/audio links with ILP members distant from MIT. Both sides were elated, and are planning future video links with other research departments and labs at MIT.

An advantage of videoconferencing

is the low cost, relative to the cost of an actual visit to or from MIT. Expenses for a videoconference include several components: there is an overhead for the use of the PictureTel system, plus technical assistance. To link with overseas systems, one needs to reserve a conversion "bridge" from a carrier such as ATT, MCI, etc. The cost of the long-distance connection is variable, depending on the distances involved.

Participating from MIT were Professor Shaoul Ezekiel and Richard Noyes, director and associate director, respectively, of the Center for Advanced Engineering Study, and Dr. Kenneth H. Goldman, the ILP officer for CSELT.

[G], Rm 26-100, 3, 7 & 10pm. Mar 7: West Side Story (1961) [unrated], Rm 26-100, 8pm. Mar 12: A League of Their Own [PG], Rm 26-100, 7 & 10pm. Cyrano de Bergerac (1950), Rm 10-250, 7:30pm. Mar 13: Passenger 57 [R], Rm 26-100, 7 & 10pm. Mar 14: The Purple Rose of Cairo [PG], Rm 10-250, 7 & 10pm.

LOOKING AHEAD

NSBE Night at the Apollo—Apr 2: Amateur competition featuring C.P. Lacey, "Sandman," from Def Comedy Jam and the Apollo, Joe Gray from the Apollo Theater in Harlem. Charity fundraiser with talent from all over New England, \$500 grand prize, reserve seating, group reservations available. Kresge Auditorium. Tickets \$10, discount to Kappa Alpha Psi party afterwards. Sponsored by the MIT National Society of Black Engineers. More info: Event Organizer Keith Bevans x5-7463; performance registration, Thane Gauthier x5-7438; tickets, Quentin Walker x5-7455.

Send notices for Wednesday, March 10, through Sunday, March 21, 1993 to Calendar Editor Rm 5-111, before 12 noon Friday, March 5.

(continued from page 6)

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. Meets Tuesdays at 1pm in Walker Memorial Dining Room.

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

MOVIES

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

Mar 5: Death Becomes Her [PG-13], Rm 26-100, 7 & 10pm. Holiday (1938), Rm 10-250, 7:30pm. Mar 6: The Rescuers Down Under



WHEREFORE ART THOU?—A pensive soul leans on the balcony above Lobby 10 watching the people pass by one recent morning. Photo by Donna Coveney

SYSTEM DEVELOPED AT MIT

Clinton Campaign E-mail Use Cited

An electronic mail industry newsletter has given an annual award to the Clinton/Gore Presidential Campaign for its effective use of the Presidential Campaign Information Service developed at the MIT Artificial Intelligence Laboratory.

The award, called the EMMSy (after TV's Emmy), is the only one in the industry based on votes by the peers of e-mail users and vendors, the newsletter's announcement said.

The multi-party non-partisan information service was initiated at the AI Lab in mid-October as an experiment to study how electronic mail and the INTERNET national computer network could disseminate full-text campaign information and facilitate informed public discussion.

The MIT system was developed by Eric Loeb, a PhD candidate in

neuroscience, and John Mallery, a PhD candidate in political science and electrical engineering and computer science.

Although the newsletter, Electronic Mail and Micro Systems, saluted the Clinton-Gore campaign for making effective use of electronic mail, it omitted mention of the MIT system, which comprised a major element of the campaign's use of e-mail.

Nor did it mention that the system was used by four other presidential campaigns—Bush, Perot, Marrou (Libertarian) and Hagelin (Natural Law).

Why didn't MIT get a mention? The newsletter's advertising firm said the reason was that the ballots distributed to the industry listed only the Clinton/Gore campaign, not the originators of the system the campaign was using.

Working under Clinton staffers George Stephanopolous and Jeff Eller, Jonathan (Jock) Gill of the presidential campaign directed the Clinton/Gore e-mail effort from Little Rock. MIT researchers involved in the project said Gill ran the "sneaker network" at Clinton/Gore headquarters, collecting campaign materials to transmit via the MIT system, and hand-carrying incoming suggestions and questions to relevant staffers.

Gill is now part of the Clinton administration, serving as a special assistant to the President directing electronic publishing and public access e-mail for the White House.

The MIT experiment was implemented on a combination of Lisp Machines and Sun workstations at the AI Lab under the auspices of Professor Patrick H. Winston, lab director. Contributing members of the AI lab included Howard Shrobe, Robert Thau, Paul Viola, Steve Gander, Bruce

Walton, and Sundar Narasimhan. Symbolics, Inc., contributed some services, and Great Eastern Technologies, Inc., provided some memory boards for the server.

According to Professor Randall Davis, associate director of the AI Lab, public participation was open to anyone with network access.

"All they had to do was send electronic mail that was routed through a particular machine here at MIT. Building on a database of persistent objects and automatic processing of digital forms—invented in this experiment—the campaign server provided a number of services over e-mail. They included automatic subscription services to a range of campaign distribution or discussion lists, organized by party and by issue. For example, users could obtain direct feeds on Bush-foreign policy, Clinton-economics, Perot-volunteers. Users could also join volunteer groups, organized by state and region, to work on behalf of their favorite candidates."

With the e-mail-based infrastructure in place, the presidential campaigns could send out the full text of press releases, position papers and background reports to its mailing list of interested individuals. Users could also search text-bases of campaign documents to get only those issues of concern to them.

The system also had an automatic surveying facility: it sent out opinion survey forms and could automatically read and tally the results. The campaigns were impressed with the ability to distribute substantive information directly to a large segment of the public, effectively, instantly, verbatim and untouched by media interpretation, as well as the ability to get ideas, suggestions, and reactions from thousands of quite highly educated people scattered around the country, the AI team reported.

Mr. Gill's assignment at the White House, Professor Davis said, is "to work from the functionality of the campaign system, then produce the more ambitious technical reality that goes with his new title. Scaling up such a system for White House use will face substantial challenges," Davis said. For example, "How should electronic mailing be processed when potentially every citizen can submit their opinions?"

Professor Davis said the AI Lab is currently trying to bring together and coordinate a number of scholars and engineers from other universities and private companies to propose some initial designs and identify relevant experts who might assist in constructing the follow-on system.

Libraries Plan Book Sales

The MIT Libraries' Gifts Office plans to hold three community book sales this spring at various locations on campus.

The first will be in the seminar room at Dewey Library, E53-212, on Thursday, March 4, 10am-3pm, offering titles in political science, economics and management.

In observance of National Library Week, April 19-23, there will be a large book sale featuring a wide range of material in all subject areas. The exact date and location will be announced as soon as arrangements are confirmed.

Finally, the spring season will close with a sale at Rotch Library, on Thursday, May 6, 10am-3pm, focusing on

art, architecture, and urban planning.

The MIT Libraries' Gifts Office's book sales are open to the MIT community only. They feature library discards and new and used donated books. Excellent buys are to be had in every field of academic study or personal interest. Prices range from \$.25 to \$25 or more, though most items fall into the \$1-\$3 range. There are also free materials in every sale. Proceeds from these sales benefit the MIT Libraries' Preservation Fund.

For more information, watch for announcements in Tech Talk and Athena, and check bulletin boards around campus, or contact the Gifts Office, x3-5693.