



SMILES ALL AROUND—The Alumni Fund held its annual celebration of the closing of the Fund Year in high spirits two weeks ago and with good reason—the realization of a new plateau, \$17.1 million. More than 28,000 alumni/ae contributed and 48 per cent of them gave \$100 or more, also a new record. Shown cutting the celebratory cake are, from left, MIT Chairman Paul E. Gray, President Charles M. Vest, Alumni Fund Chairwoman Karen Mathiasen, and Fund Director Joseph S. Collins. **Photo by Donna Coveney**

AUGUST 20

Symposia Open to All At International 2.70

The activities surrounding the August 20 International Design Contest at MIT include symposia on technology education on television and international design education.

Associate Professor Harry West, director of the 1992 International Design Contest, said the symposia—both to be held from 9am to 4:30pm in the Bartos Theater, Rm. E15-070—are open to visitors on a seats-available

basis. Seats can be reserved by calling x8-5807.

The symposia are:

On August 17, the First International Symposium on Technology Education on TV. This symposium will be of interest to teachers and university faculty who have contact with the media and to members of the media who are interested in working with university faculty in communicating ideas about technology.

On August 18, the Second International Symposium on International Design Education. This symposium will be of interest to design faculty and to companies working on collaborative international design projects.

Participants in the Symposium on Technology Education on TV are:

Joe Blatt, Chedd-Angier Production Co; Yoshiaki Kiuchi of NHK; Adam Hart-Davis, Yorkshire Television; from MIT, Professor West and Professor Woodie Flowers, both of the Department of Mechanical Engineering, and Professor Ronald M. Latanision, chairman of MIT's Council on Primary and Secondary Education, and Professor Shaoul Ezekiel, director of the Center for Advanced Engineering Study; Jang G. Lee, Seoul National University, Korean Broadcasting Service; Masashi Shimizu, Tokyo Institute of Technology; Ken Wallace, Cambridge University, United Kingdom; Herbert Birkhofer, Technische Hochschule Darmstadt, Germany; and Sam Gibbon of the Sloan Foundation.

Participating in the Symposium on International Design Education will be Professors West, Shimizu, Wallace, Birkhofer and Lee, plus Bruce Coventry of Ford Motor Company and Jason Pei of Digital Equipment Corporation.

The design contest on August 20 will pit 10 teams of 4 students, competing with remotely controlled machines they have designed and made from an identical kit of parts issued to each

(continued on page 4)

US OPPOSES BRIEFS

Colleges, Philadelphia Schools, Rockefeller Fund Back MIT

■ By Kenneth D. Campbell
News Office

MIT's legal fight for need-based financial aid has been joined by the Philadelphia public schools, associations for hundreds of colleges and the Rockefeller Brothers Fund, all of which are seeking to file friend-of-the-court briefs in the antitrust action against the Institute.

The Justice Department's Antitrust Division has orally refused to consent to the filing of the first of the briefs presented, according to lawyers for the organizations seeking to place them before Chief Judge Louis C. Bechtle of the US District Court in Philadelphia. Testimony in a 10-day, non-jury civil trial before Judge Bechtle ended July 9.

The initial briefs were filed by 20 organizations which represent most of the four-year colleges in the United States, including state universities, independent colleges, Catholic universities and the United Negro College Fund.

On July 30 the American Council on Education (ACE) and 11 other groups sought to file additional briefs. Atty. Eugene Gulland of Covington and Burling in Washington, lawyer for ACE's 1,500 educational institutions, said the case "presents issues of surpassing importance to higher education in the United States."

The groups involved in this effort include the ACE; the United Negro College Fund (41 private colleges); The College Board (2,800 institutions); the Association of American Universities (56 research institutions); the Association of Catholic Colleges and Universities (202 institutions); the Association of Jesuit Colleges and Universities (28 institutions); the National Association of State Universities and Land Grant Colleges; the National Association of Independent Colleges and Universities (840 institutions); the Council of Independent Colleges; the Association of American Medical Colleges (526 institutions); the National Association of Student Financial Aid Administrators (3,000 institutions); and

the National Association of Student Personnel Administrators.

FIRST AMENDMENT ISSUE

The brief this group filed said, "The financial aid policies that the Justice Department challenges here lie at the heart of the constitutionally protected freedom of a university to make its own judgments as to . . . the selection of its student body." The brief cited the words of the 1978 US Supreme Court decision in *Regents of the University of California v. Bakke*, saying that Overlap (the name for the process by which MIT sought to ensure need-based financial aid) "embodies the goal cited in the *Bakke* case of 'achieving the educational diversity valued by the First Amendment.'"

Two other separate requests to file friend-of-the-court briefs were made by seven Philadelphia groups and the Rockefeller Brothers Fund on Friday, July 24.

The Philadelphia public schools, the Urban League of Philadelphia, and five local groups of civic leaders and lawyers said, "The Friends of the Court support MIT's policies of need-blind admissions and need-based financial aid and urge this Court to repel the Antitrust Division's efforts to eliminate them. The Antitrust Division has not met its burden of proving that Overlap is an unreasonable restraint on competition that results in an economic injury," they wrote. The brief was filed by the School District of Philadelphia, the Urban League of Philadelphia, the Greater Philadelphia Urban Affairs Coalition (whose board of nearly 100 civic leaders includes a dozen corporate chief executives and three leaders of labor unions), and four associations of lawyers—the Barristers Association of Philadelphia, Inc. (about 1,000 African-American lawyers); the Hispanic Bar Association of Pennsylvania; the Asian American Bar Association of the Delaware Valley (Pennsylvania, New Jersey and Delaware); and the National Bar Association Women Lawyers Division, the Philadelphia chapter

of more than 450 African-American women attorneys.

In its brief, the Rockefeller Brothers Fund (RBF) said it has an interest in the case "because it is a charitable organization that is active in promoting and supporting educational opportunities for minority college students and is familiar with the way charitable organizations make their decisions with regard to awarding grants and allocating scarce charitable resources."

'STRENGTHENS ECONOMY'

The Rockefeller brief said, "It should not be a matter of debate that access to higher education by the maximum number of Americans fulfills important goals of American society and strengthens the American economy. . . . Indeed, access to higher education is a necessity if there is to be true equal opportunity. . . ."

"Given our national aspirations and national interests, it is perverse to create more obstacles to the education of needy Americans. . . . The interplay between 'need-only' student financial aid and a socially and economically strong America is magnified by the changing demographics of our country. The minorities of America today are the emerging 'majority' of America tomorrow. . . . For members of some minority groups, higher education is not traditionally valued, and the benefits of deferring entry into the work force in order to pursue a higher education are not always self-evident. . . . The non-financial obstacles to their matriculation need to be overcome, and those obstacles should not be made to loom larger by increasing the financial obstacles."

Referring to the Overlap process, the Rockefeller brief said, "Allocating aid in this fashion is a prudent use of charitable assets and a wise investment in America's near-term and long-term future. Colleges should be allowed to make such allocations by the most efficient and effective means available."

MIT MEMORANDUM

In its 47-page "Post-Trial Memorandum" to the court, filed July 24, MIT said: "Simply stated, Overlap involved coordination among nonprofit organizations, which sought to achieve the fairest allocation of limited private charitable funds, in order to most effectively attain charitable goals embraced by the government—in a 'market' in which the final 'product' is subsidized and provided below cost for all 'buyers,' given outright to some who cannot afford it, and withheld from others who could and would pay a great deal for it if only the 'sellers' would sell to them."

"No antitrust decision has ever held such conduct to constitute commercial behavior to which the antitrust laws would apply. Indeed, no commercial firm could engage in such practices and remain in business beyond the time it took to exhaust its bank account."

MIT noted contradictory attitudes by the Department of Justice in the MIT antitrust trial, which began June 25, and in a Justice Department brief of the very next day, June 26, in another case, *US v. Fordice*, a civil rights case in Mississippi.

"It is worth noting," MIT said, "that the same government agency which claims that MIT's goals of equal educational access and opportunity are 'irrelevant' to the antitrust inquiry, recently concluded 17 years of litigation

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Ivy League Statement

The presidents of the eight Ivy League institutions (Brown, Columbia, Cornell, Dartmouth, Harvard, Pennsylvania, Princeton and Yale) issued a joint statement last week thanking the Congress and the President for enacting into law a provision in the Higher Education Reauthorization Act which reaffirms the right of colleges and universities to agree that they will award student financial aid on the basis of need.

The full text of their statement is: "We are pleased and encouraged that Congress and the President have reaffirmed the right of colleges and universities to agree to award institutional financial aid on the basis of need. This action will help insure, through our financial aid practices, that a college education at our institutions remains accessible to the maximum possible number of needy students."

"Our universities have long agreed to award our own financial aid funds to undergraduates only on the basis of demonstrated financial need. Last year we were obliged to suspend this agreement because the

Department of Justice disputed its legality under the anti-trust laws.

"Now that the Higher Education Reauthorization Act has been signed into law, we plan to resume our financial aid agreement in the manner authorized by the new statute. The result, as Congress intended, will be an equitable system of financial aid that serves the maximum possible number of needy students and helps assure that our institutions will remain accessible to students from all backgrounds and walks of life."

This statement was endorsed by President Vartan Gregorian of Brown University, President Michael Sovern of Columbia University, President Frank H.T. Rhodes of Cornell University, President James O. Freedman of Dartmouth College, President Neil L. Rudenstine of Harvard University, President Sheldon Hackney of the University of Pennsylvania, President Harold Shapiro of Princeton University and Acting President Howard R. Lamar of Yale University.

Student Notices

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

ANNOUNCEMENTS

1992 Roommate Get Togethers**—Aug 10, 17, 24, 31, Sept 8: These Get Togethers are to assist members of the MIT community in locating housing and informally meeting other people who have openings in their homes/apartments. Meet from 5-7pm, Ashdown House Dining Room. In addition, the Off Campus Housing Office, Rm E32-128, will remain open until 7pm on Aug 21 and 28 to help in your search.

Kundalini Yoga Classes*—Beginners welcome, bring something on which to sit. Andy Rothstein x3-2276. Sponsored by VSG (Vegetarian Support Group), Wednesdays, 6pm, Rm 1-132.

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.

Free Museum of Science Admission for MIT Students—With MIT student ID, provided by Mass Beta chapter of Tau Beta Pi, the National Engineering Honor Society. Reduced admission to special exhibits.

MIT Student Furniture Exchange**—If you have a great imagination, a sense of humor, very practical needs, a shoestring budget, a sense of adventure, the Furniture Exchange is the place for you. We have tons and tons of stuff right now! Great bargains, used furniture and more, Tues/Th, 10am-2pm, 25 Windsor St (MIT Museum bldg, 1st fl). Donations welcome. x3-4293.

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. 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.

Morning Bible Studies**—Fri, 7:30-8:30am, L-217. Ed Bayliss, x3456 Linc.

Noon Bible Study*—Every Wed, Rm 1-132, bring lunch. Ralph Burgess, x3-8121. (Since 1965.) (Graduate Christian Fellowship.)

Graduate Christian Fellowship**—Come join other grad students, faculty and staff in learning about and growing in the Christian faith. Activities open to both Christians and those interested in learning more about Christianity. Info: John Keen x3-7706, Dave Otis x3-2198.

MIT Hillel*—More info: x3-2982.

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 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. A unique opportunity for MIT science, technology and management students to spend a year in Japan working at a major Japanese company or laboratory. Training, placement, travel and living expenses are covered by the Program. Call Patricia Gercik x3-3142, Rm E38-754.

STUDENT JOBS

There are more job listings available at the Student 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.

Off Campus, Non-Technical, Summer Technicians and investigators are needed for sample collection, written test administration, application

Sports at MIT

WOMAN OF THE YEAR

1992 MIT graduate Lisa Arel of Lee's Summit, Mo., has been named the National Collegiate Athletic Association Woman of the Year for the Commonwealth of Massachusetts. The award, sponsored by the Champion Athletic Products Division of the Sara Lee Corporation, is based equally on the nominee's athletic excellence, academic achievement, and service and leadership. Arel is a seven-time All-America selection in gymnastics. In addition, she has been a two-time GTE Academic All-America first-team selection and is the winner of a prestigious NCAA postgraduate scholarship. Women's athletics at MIT will receive a cash award of \$5,000 from Champion for Arel's selection on the state level. Additionally, 10 finalists will be chosen from the 52 state winners (including Puerto Rico and Washington, D.C.) in September and the schools of those finalists will receive another \$5,000. Later in the fall the NCAA National Woman of the Year will be chosen from the 10 finalists.

SAILING

New MIT varsity sailing coach Fran Charles won the 210 class in the Midsummer One-Design Regatta in Marblehead. Charles captured the title in "Fanfare" a 35-year-old boat which his father, Fran Charles Sr., had raced for 15 years. "Fanfare" was the oldest boat in the fleet.

The MIT women's sailing team finished the 1992 season ranked sixth in the country by Sailing World magazine. **Roger F. Crosley**

Crimewatch

The following incidents were reported to the MIT Campus Police Department between July 9 and 29, 1992:

- July 9: Bld E17, telephone stolen \$35; Figi House, compact disc player stolen, \$378.
- July 10: Albany Garage, 2 Honda's broken into, nothing taken from either; false alarm pulled in the Student Center by a group of non MIT youths who were asked to leave by the Student Center manager.
- July 11: Burton, unwanted guests, same gone upon CP arrival; N10 lot, Ford window broken, nothing missing.
- July 12: Tang, bike stolen \$220; Bldg 54, bike parts stolen, \$120.
- July 13: Alumni Pool, male seen with wallet in his hand, victim yelled, suspect dropped wallet but fled with \$101 cash and credit card.
- July 14: Alumni Pool, locker left unlocked, wallet stolen \$100 cash.
- July 15: Albany Garage, radio and cash stolen from a car value \$350; Bldg 3 two pocketbooks were left under desk unlocked and unattended, both stolen 1) \$24; 2) \$4.
- July 15: New House, bike locked to itself stolen, \$300; Service of a default warrant.
- July 16: Ashdown, bike stolen \$212; Bldg 13, bike stolen from compound \$130; E19, cellular phone, value \$1,500; E25, attempted larceny of typewriter, same recovered; E15, pocketbook left unlocked and unattended under desk \$36.
- July 17: Bldg E53, pocketbook left in unlocked desk drawer for a period of time same stolen, value \$30; Westgate lot, Pontiac stolen, Buick stolen from Boston recovered in Westgate lot; Student Center, vandalism.
- July 18: Bldg W59, pagers stolen \$3,600.
- July 19: The following incidents occurred at the Student Center, male arrested for larceny of bicycle; vandalism to video machines; Baker, room left unlocked and unattended watch and cash stolen \$320.
- July 20: E56, annoying mail; vandalism Student Center; Albany Garage, car broken into and radio stolen; Audrey St. Nissan stolen.
- July 21: Student Center male arrested for larceny of bike; Three males arrested for larceny of bike parts, bicycle officer injured in effecting the arrest.
- July 22: Bldg 18, unlocked and unattended wallet stolen, \$32.
- July 23: W85, domestic disturbance; Bldg 20, suspicious activity; Bldg NE43, wallet left unattended stolen \$40.
- July 24: Hayden, vandalism to books; Rockwell cage, wallet stolen no cash; NW21 suspicious activity.
- July 25: New House two females given trespass warnings, soliciting for the Walk for Hunger (Soliciting is not allowed on campus and the Walk for Hunger is in May).
- July 26: Alpha Tau Omega, car broken into radio stolen \$400.
- July 27: duPont wallet left unlocked and unattended, \$12; stolen bicycle recovered in Hayward lot; Bldg E52, victim entered office only to observe a male fleeing area with \$260 cash; NW16, suspicious activity; Hyundai broken into at Presidents House, radio stolen \$455; Bexley, bicycle stolen \$90.
- July 28: Student Center, bike stolen \$80; Sailing Pavilion bike stolen, \$300.
- July 29: Bldg 26, suspicious activity causing damage to restroom sink; Bldg 14, bikes stolen 1) \$100; 2) \$00.

of electrodes, and operation of machines. Training will be provided. Students should be biology, psychology, pre-med or other science majors. This position is voluntary for the first year, but may be paid after that. Hours negotiable. Contact: Allan Ward, Brigham & Women's Hospital, 221 Longwood Ave. Boston Ma. 02115. Phone 732-5500 x1148

On Campus, Non-Technical, Clerical Marketing Assistant needed. Duties include: process outgoing letters and memos, maintain and update mailing lists, run errands, assist with large mailings and special projects. Knowledge, skills, and abilities required: experience using or ability to learn MS Word, Excel, Filemaker Pro, and other software packages as they are introduced, ability to deal with visitors and phone calls in a professional manner, attention to detail. Hours 12-15 hours per week. Salary 8.00/hr. contact Sallie Keesey, Faxon Research Services, Inc. 238 Main

St. Suite 201 Cambridge. Phone 354-7112.

Off Campus, Technical, A Research Lab Tech. is needed. This position assists Dr. Tomera perform research on a newly founded SBI grant studying the effects of burn trauma on skeletal muscles in mice. Duties include: assistance in the preparation of animals models, small animal surgery, performing lab analyses and all aspects of assays, manages research data, and performs general lab duties. Position starts Sept. 1 and should continue for the year. Hours M-F 8:4-3:30, 9:5-3:20 hrs wk. Salary 7-10/hr. Contact John Tomera Clinical Pharmacology Lab., MGH, 374-5634.

Off Campus, Technical, Summer... Junior needed in Electrical Engineering with coursework in Trans. theory and programming in BASIC. Hours full-time. Salary 8.00/hr. Contact Mike Patel, Madison Cable Corp. 125 Gottard Memorial Dr., Worcester, 508-752-7320

Institute Calendar

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

SEMINARS & LECTURES

Thursday, August 6

Space Travel on a Shoestring: Inexpensive Orbital Transfer Using Rotating Tethers and Space Stations*—Bruce A. Mackenzie, Space Studies Institute. Sponsored by the MIT Students for Exploration and Development of Space and the National Space Society, 8pm, Rm NE43 8th floor Playroom.

COMMUNITY INTEREST

Alcoholics Anonymous (AA)**—Meetings every Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info call Alice, x3-4911.

AA Women's 12-Step Meeting**—Meetings every Sunday, 5:30-7pm, Rm E23-297. For info call Alice x3-4911 or Betty x3-5714.

Al-Anon**—Meetings every Fri, noon-1pm, Health Education Conference Rm E23-297; every Tues, noon-1pm, Rm 1-246; and every Mon, 12-1pm, Lincoln Lab Bldg 1218, Family Support Ctr. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Alice, x3-4911.

Alcohol Support Group**—Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Alice, x3-4911.

Cancer Support Group**—Meetings every Thursday, 12-2pm, Bldg E51. For those with acute and chronic forms of cancer. Sponsored by the MIT Medical Dept. For information about weekly luncheon meeting, call Dawn Metcalf, Social Work Service, x3-4911.

Children's Art Classes**—For children 5 years and older, Thursdays, 3:30-5pm, Westgate Function Room. Sponsored by the MIT Child Care Office and Technology Community Women. Fee is \$10/mo plus one-time TCW \$5 membership fee.

Co-Dependents Anonymous (CoDA)*—Meetings every Thurs, 6:30-8pm, Rm 66-156. Info: Alice, x3-4911.

Drop-In Playgroup**—Ongoing, daily, Mon-Fri, 9:30-11:30am, Westgate Function Room. Sponsored by the MIT Child Care Office.

Informal Embroidery Group**—MIT Women's League, 10:30am-1:30pm. Upcoming dates are: August 5, 19. Meets in Killian Court. In case of rain meet in the Women's Lounge, Bldg 10-3rd floor. Info: x3-3656.

Job Search Support Group**—For wives and spouses of MIT employees and students. We will listen, help and learn from each other about how to find a job. Sponsored by the MIT Wives' Group. Info: Mieke 628-0721 eves or Susan x3-1614.

Narcotics Anonymous*—Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.

Overeaters Anonymous (OA)*—Meets Thurs, 1-2pm, Rm E23-364. Only requirement for membership is the desire to stop eating compulsively. Info: Alice, x3-4911.

Parents Anonymous*—Wednesdays, 12-1pm, sponsored by Parents Anonymous and MIT Child Care Office. Call 1-800-882-1250 for more information.

Physical Education Summer Classes**—Registration for the following classes is currently underway and will continue until classes reach maximum enrollment: aerobic dance, early bird aerobics, low impact aerobics, step aerobics, exercise fitness, boxing, fitness, golf, jazz, judo, sailing, scuba, sculling, self-defense, swimming, tennis, weight training, wellness. Call x3-4291.

MIT Summer Recreational Rowing**—Physical Education Courses: June, July, & August classes. Call x3-4291. Open Instruction/Coaching Available: June 8-Aug 21. MW 7:30-10:30am, TuTh 4-7pm. Boathouse Hours: Open for rowing Mon-Fri 6am-2pm, TuTh till 7pm. All rowers must have a valid MIT Sculling Card and pass the small boats swimming test. Fee: Student, \$30; Faculty, staff, alumni, \$100; Additional family member, \$50. Call x3-9676 or x3-4291.

MIT Toastmasters**—Upcoming meetings: August 14, 28. An organization that helps people improve and practice their public speaking skills. 12:14-1:30pm, Rm E19-220. Sponsored by MIT Personnel Office.

Weight Watchers**—New 10 week series just started. Call Rose Bella x3-4617.

Working Parents Support Group**—Meets Tuesdays, 12:30-1:30pm. Preregistration required; call x3-4911. Sponsored by the MIT Child Care Office and the MIT Medical Dept.

HEALTH EDUCATION

Nursing Mothers' Support Group**—Pregnant and breastfeeding women at MIT meet to gain confidence and share info and practical tips. First Tues of each month, 10-11:30am and third Wed of each month, 4-5:30pm, Rm E23-297. Babies welcome. Info: Margery Wilson 868-7218; call x3-1316 for schedule.

Working Mothers Support Group**—An ongoing support group that meets to discuss parenting-related issues in a casual atmosphere. Meets first Thursday of each month, 12-1:30pm (drop in anytime), Rm 18-591. Info: Debbie Levey x3-7112 (mornings only).

Childbirth Preparation**—Early Pregnancy, Lamaze Childbirth Preparation, and Lamaze Review classes are offered to patients of the MIT Medical Department's Obstetrics Service. Call x3-1316 for details.

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

MITAC

Ticket locations and hours: Tickets may be purchased 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, 1-2pm Tues and Wednesday, and 1-4pm Thursday and Friday. Further details on events are included in MITAC's monthly flyer. To avoid disappointment, make reservations and purchase tickets early. Because MITAC is nonprofit; refunds are not available.

MITAC, the MIT Activities Committee, offers discount movie tickets for General Cinema and Loews Cinemas, both are \$4/ea (Loews tickets are not valid the first 2 weeks a movie is released). Tickets are good 7 days a week, any performance. Due to popular demand, Showcase discount tickets have returned—tickets are \$4.25 ea, valid Mon-Thurs only.

Museum of Fine Arts—The Council for the Arts has 10 passes employees may borrow for free admission. Call the Office of the Arts at x3-4003 for availability. At Lincoln Lab, MFA passes are available in A-150.

New Discounts: Born 2B Wild Hair Salon, Cambridge Tire, Catch a Rising Star, Mrs. Field's Cookies (Burlington Mall), Preferred Customer Cards, Improv Boston, Water Country, Spirit of Boston, Ristorante Fiorentina, Martha's Vineyard and Nantucket Ferry discounts, Riverside Discounts (up to \$5 off on admission. Lots of other discounts available in the MITAC office, too, for all MIT employees.

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Printed on Recycled Paper

More Discounts: Comedy Connection, Plymouth County Discounts (including Pilgrim Hall Museum, Plymouth National Wax Museum, King's Castle Land, Plymouth Harbor Tours, Cruises to Provincetown, Captain John Boats, Star Land Recreation Center, Inc., Plymouth Plantation), Riverside Amusement Park, Whitewater Rafting and, coming soon, 2-for-1 discounts for Whale Watches.

Rocky Point Park Discount Tickets (Warwick, RI): Tickets: \$8.45/adult (reg. \$12.45) for general admission; \$12.75/adult (reg. \$18.50) for all-inclusive admission (includes food). Discount tickets are valid through September 7, 1992 (Labor Day). Not valid on Fridays, special events, or private parties.

Reminder: MITAC has a limited number of tickets for two performances (9/30 and 10/6) of The Phantom of the Opera. Tickets may only be ordered by calling a special telephone ticket line on a specific date. Refer to the special Phantom flyer for details. Pick up a flyer in the MITAC Office.

■ **SOCIAL ACTIVITIES**

MIT Singles, 35 Plus**—During the summer meets on Aug. 7, Aug 28: For information call Judy x3-9792 or Mary Anne x3-3293.

■ **EXHIBITIONS**

MIT Museum—Thinking the City: Twelve Views from MIT. Exhibit of work by studio design faculty of the Dept. of Architecture. Through Aug 16. **Henry W. Kendall: Arctic and Expeditionary Photographs.** Photographs from the adventures of Henry W. Kendall, MIT physics professor. Through August 30. **Drawings at Work: William R. Ware and the Origins of American Architectural Education.** Celebrates the career and influences of William Robert Ware (1832-1915), considered by many to be the father of American architectural education. See below for related walking tours. Through September 25. The following are ongoing exhibits: **Crazy After Calculus: Humor at MIT.** The history of MIT "hacks." **Doc Edgerton: Stopping Time.** Photographs, instruments, and memorabilia documenting the late Harold Edgerton's invention and use of the strobe light. **Holography: Types and Applications.** Scientific, medical, technical and artistic imaging drawn from the work of the Spatial Imaging Group at MIT's Media Lab. **Light Sculptures by Bill Parker.** Vivid interactive light sculptures, each with its own personality and set of moods. **Math in 3D: Geometric Sculptures by Morton G. Bradley, Jr.** Colorful revolving sculptures based on mathematical formulae. **MathSpace.** Hands-on exploration of geometry is the theme as visitors tinker with math playthings. (265 Mass Ave., Tues-Fri 9-5, Sat-Sun 1-5. Requested donation: \$2, x3-4444).

Compton Gallery—MIT/CASEY. Thirty-year retrospective of posters, invitations, letterhead, record covers, and other works by graphic designer Jacqueline S. Casey, one of the first American women to define design practice. Ms. Casey played a pivotal role in putting MIT on the visual arts map. Through Sept. 11. (Enter 77 Mass Ave. Weekdays 9-5, x3-4444).

Strobe Alley—Edgerton/Mili Photography Contest Prize Winners. Bldg 4, 4th floor. Through the summer.

Hart Nautical Gallery—A Thousand Years of Voyages of Discovery—Exploring the Ocean from Surface to Seabed. Examines historic explorations of the sea's surface and current efforts to understand the ocean's depth as well. Through Summer 1993. (55 Mass Ave. Weekdays 9-8, x3-5942) **Boston Fisheries 1900-1920.** Photographs documenting Boston's T Wharf area. Ongoing.

■ **MUSIC**

Summer Band Concert—August 16, 8pm** in Kresge Auditorium. John Corley conducts the Summer Band in a program of works by Grainger, Joio, Persichetti, Chance and others.

■ **THEATER**

SPARC: Summer Production Artistic Repertory Company**—SPARC is a newly founded group at MIT providing staged readings, classes and performances at MIT through the summer. **Aug 5, 12, 19:** Outdoor Staged Readings, Hayden Courtyard, Bldg 14, call to check time. **Aug 8, 15:** Theater Workshop Classes, call to check time and location. Call x3-4373.

The Beggar's Opera**—**Aug 7-8, 13-15, 20-22:** MIT Community Players Musical Theater summer production, 8pm, Kresge Little Theater (84 Mass Ave). Ticket prices: \$9 general, \$8 for MIT staff, \$6 for students w/MIT ID. Call 253- 2530.

Cyrano De Bergerac**—**Aug 6, 7, 8:** MIT Summer Artistic Repertory Company in association with the Simple Theater Company, 8pm, Kresge Auditorium. Tickets \$7 general, \$6 for students and MIT community.

Send notices for **Wednesday, August 26** through **Sunday, September 6, 1992** to **Calendar Editor** Rm 5-111, before 12 noon Friday, August 21.

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 will not be accepted.

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

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

Deadline is noon Friday before publication.

■ **FOR SALE**

Fl-sz, hand-carved maple bed, gd cond, \$165; traditional camelback sofa w/wood trim, gd cond, \$75. Or take both for \$200. Brenda x3-7480.

Queen-sz waterbed, \$125; 19" color TV, \$50; man's 10-spd, \$50; enclosed end tables, \$20; 2 file cabs, 3-shelf bkcase, \$15. Jill, x3-2164 or 241-5396.

Air conds: Kenmore 8,000, Westhse 7,000, Emerson 6,000 BTU, best offers. Anna, x3-8449.

Encyclopedia Britannica, 32 vol current edition, incl 3-vol dictionary, perf cond, \$750. Elizabeth, x3-5642.

Little Tykes stove, lk new, \$20; child's desk & chair, new, \$20; baby rocker & high chair, \$7 each. Joan, x3-4252.

Evenflo infant carseat, \$25; Evenflo changing table, \$75; infant scale, \$20; Century swing, \$10, wicker bassinet w/l skirt, \$40; Little Tykes dbl easel, \$25, bumperpads \$20. x3-9315 or 337-5693.

Sharp UX-101 phone/fax mach, list \$467, auto fax/phone changeover, connects to ans machine, 6 mos old, \$325 or best. Ming, x3-1820 or 524-8229, lv msg.

Two Delta round-trip tickets, Bos-Ft. Lauderdale, 8/29-9/5, \$150 each. Rose Wilson, Linc x2160.

Emerson a/c, \$85; fem 10-spd bike, sm, \$55; sm wh wood desk, \$45; bkcase, \$35; mahog side table, \$25; window fan, \$10; Singer sew machine, \$60. x3-3175 or 332-8251.

Scand Design teak furn: stereo bench, \$60; stereo cab, \$85; new vanity table, \$95; 2 adj desk chrs, \$23 and \$35; 2 bl straight chrs, antique, \$20 ea, misc lamps, chrs. X3-6081.

Refrigerators: frost-free 17 cu ft, \$299; 36x30x30, \$109; 14 cu ft-frost free, \$109; 2-oven 30" self-clean elec stove, \$109; folding 4-story escape ladder, \$109. Bruce, x3-5588 or 277-1470.

Thule car rack w/2 bike rails for cars w/o gutters, locks incl, \$100; Unique Vivasport 10-spd man's bike, less than 300 mi, \$150. Maureen, (508) 881-7136.

Crate & Barrel dk blue loveseat w/narrow wh stripes, 65x36x34", mint cond. Susan, x3-9456 or 491-7103.

Fl-size futon w/hardwd sofa frame, matching coffee table, \$375; queen-size futon w/platform \$150; round din table, \$25; lg desk, \$20; chairs negotiable. Doug or Amelia, 252-0785.

Cherry BR set, 5 yrs old: 4-poster bed frame for fl or queen size, lg dresser & mirror, night std, \$2,000 new, now \$1,250. Linc x2467 or 893-3831

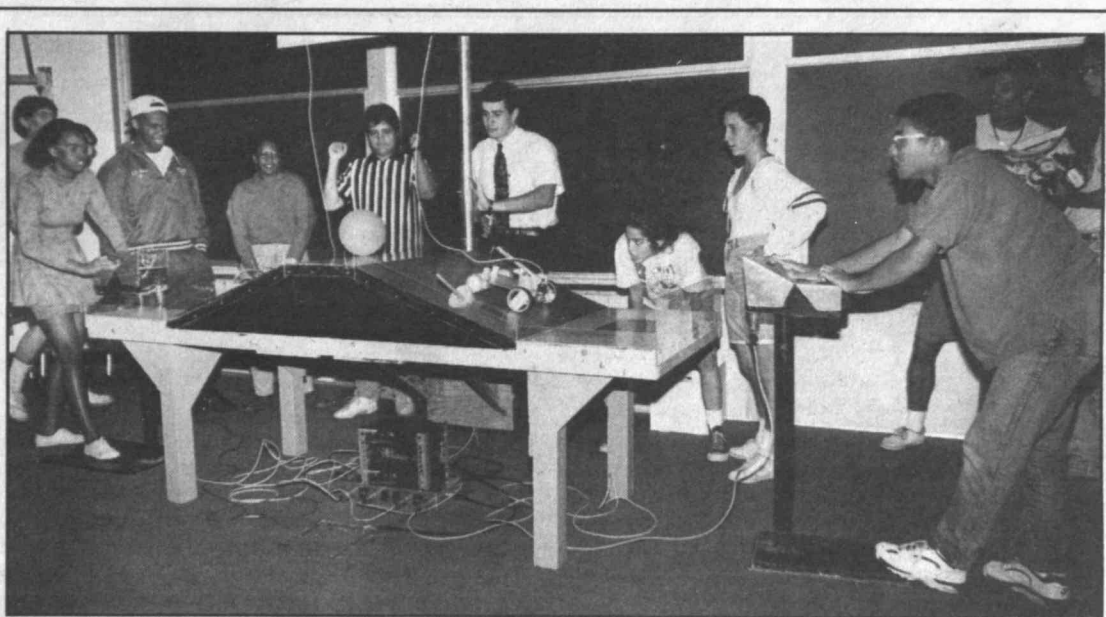
Queen-sz bed, matt, box spr, old but firm, \$100; 6' convertible sofa, \$50; 4-drw steel file cab \$50; 3' circ K table & 4 swivel chrs, \$70. Mark, x8-6574.

Air conditioner, 18k BTU—pick it up, it's yours. Alex, Draper 8-4212.

Oval diamond solitaire set in 14K gold, .42ct, H coloring, VS grading, paid \$1200 in 1991, \$1000 or best. Call 484-1601 evgs.

One-way male airline ticket, Boston-Raleigh, NC, Aug 23, 6:30am, stop in NYC. \$40. x3-6837 or 395-9649 evgs, lv msg.

PC286 clone w/287mathcoprocessor 60MB hard drive 1MB RAM and 1MB expanded RAM, EGA



MITES, (short for Minority Introduction to Engineering and Science) program held it's first design contest, modeled on the 2.70 contest supervised by Professor Harry West, who also helped out with this one. It was an enthusiastic affair, as, left to right: Rudene Mercer, at the controls, John Brown 3rd, Kerry Newell, referees Tony Falcone and Andrzej Skoskiewicz, both graduate students in mechanical engineering, and MITES ers Xilonin Cruz-Gonzalez, Kimberly Miller, and Jason Thweatt, at controls, will attest. This was MITES 18th year and more than 40 high school students from across the nation attended. Photo by Donna Coveney

color mon, Microsoft mouse, loaded w/software, \$475. Clayton, Linc x2008 or 643-5104.

New crib mattress, was \$100, \$50; mauve playpen, exc cond, was \$99, \$50. June, x3-2815.

Videotape player w/remote control, \$100. Robert Gilpin, x3-7726.

Gold glass tulip lamp on chain, \$75; lg gold gloc on chain, \$75; white French Prov BR set w/triple dresser, mirror, sg1 bed and night tbl, \$275. Beverly, x3-3382 or 344-8480.

IBM PC, 20MB disk, 512K, serial & parallel ports, color graphics adapter, 13" green Amdek monitor, Hayes Smartmodem, Toshiba printer, \$575, printer avail separately. Ed, x3-6094 or 577-1723.

AmericaWest Hawaii certificate, gd for free companion ticket when another is purchased at published fare, or 50% off sg1e ticket at published fare, \$150 or best. Call 876-7773.

■ **ANIMALS**

Free love—kitten love: 2 B&W, cute as buttons, nd homes. Charlotte, x3-4738

■ **VEHICLES**

1978 AMC Concord, 91K, Florida car, gd tires, br, exh, \$550. Call 861-9472.

1983 Toyota Tercel, 97K, 5-sp, 4-dr htchbk, in exc running cond, but w/some rust, \$950. Bob, x3-8659.

1983 Nissan Sentra, used daily but getting new car, \$400; two 1973 Alfa Romeo Spiders, one runs, one may not, both in storage, \$400 ea. Craig, Linc x3133 or (508) 263-7497.

1984 Mazda GLC LX, 4-dr, 5-spd, 65k, sunrf, a/c, 35mpg, southern car, \$3500, nego. Allan x5-9698.

1984 Nissan Sentra, 5-dr, 5-spd, 109k, great commuting car, nds struts, \$995 or best. Donna, x3-8529 or 666-8550.

1984 Mercury Capri, 60k, no rust, auto, sunrf, radio, new tires & exh, comp maint records, \$2000 firm. Jack 868-9858.

1984 Nissan Sentra wgn, a/c, 5-spd, 81k, new clutch, br; eng & body in gd cond, one owner, dependable cheap trans. JoAnne, x3-7157 or 924-7292.

1986 VW Golf, boue, 2-dr htchbk, 5-spd, new shocks, brake pads, AM/FM cassette, great shape but one dent, \$1900 or best, moving, must sell. Elisa, x8-5540 or 629-2655.

1987 Chevy Nova, Toyota Collolla version, auto, a/c, AM-FM, no rust, 65k, \$3600 or best. Call 924-1490.

1988 Ford Ranger pickup 4x2, cap, liner, new Michelins, stereo, superb cond, \$4900 or best. x3-3824.

1989 Mitsubishi Precis LS, 5-dr htchbk, 5-spd, a/c, rear defrost, intermittent wipers, 23k, no rust, body in v gd cond. Lv msg at 277-9108.

1990 Pontiac Grans Am SE, a/c/ cruise control, fl power, exc cond, \$7900. Barbara, Linc x3297.

■ **HOUSING**

Allston, 3BR apt, newly renov, front porch, street pking, on T, 2 miles from MIT, \$750/mo. Pat, 783-2733.

Arlington Ctr: 3rm, 1BR apt, 1-car pking, \$575/mo; Belmont: 7-rm, 3BR, fp, 2-car gar. \$1100/mo, both avail 9/1. Call 489-0460.

Belmont: 2-rm bsmt furn apt, own bath, simple cooking, walking dist to T, Ctr, approx \$300/mo. X3-2367 or 738-6659

Brighton: 3BR apt in 2-fam house, study, nr T, avail 9/1 \$900/mo+utils. Owner 782-3094.

Brighton, fst flr apt in 2-fam house, 2BR, LR, DR, K, K'ette, quiet, nr trans, avail 9/1, \$800/mo+util and heat. Mike, 787-3576.

Cambridge, Kendall Sq, 3BR apt, 2 bath, dishwash, laundry, w-w carpet, young townhouse, no pets, \$1320/mo+utils. Nancy, x3-4690.

Cambridge, 2BR apt, lg sunny K, access to rf deck, 10 min walk to MIT, \$800/mo incl ht. Call 876-8422.

Chatham, 3BR, 2 bath furn home, views of Pleasant Bay, nr Harding Beach, National Seashore, sleeps 6, no pets, \$850/wk till Labor Day, \$650/wk Sept, 2 wks pref. Linc x3239 or 891-1483.

Dorchester: safe 3BR apt in beaut Vict, mod bath, spac K, DR, china cab, wd flrs, laundry, deck, Oriental garden, easy drive to MIT, on Red Line, \$885/mo+utils. Pat, 450-2906 or 825-8048.

Everett, 5-rm apt, 2BR, fst flr, mod bath, washer/dryer hookup, closets, off-street pking, nr T, no smoking, pets, \$600/mo+utils. X3-5146 or 381-0339 evgs.

Lake Ossipee, NH, cottage, 2BR, fully furn, priv road, beach w/boatdock, \$375/wk. X3-2720 or (508) 372-1152 evgs.

Malden: furn 3rd fl apt in priv sgl-fam home, priv bath share K & laundry, quiet, nr T, avail; 9/1, MIT-affil pref, \$525/mo. Karla, x3-2203.

Malden: 5-rm apt, lg spac K, LR, porch, deck, remod bath, laundry, refriger, quiet, pking, nr T, avail now. Call 324-7687 lv msg.

Medford/Wellington: 6-rm apt, 2nd fl, 2BR, remod, wd flr, ceil fans, tile bath, nr T, 93, shops, \$750/mo. Also 1986 elec/Buick, T type; also Florida car. Call 395-7265.

Medford, nr Tufts, 2BR, first flr of 2-fam, hrdwd flrs, porches, sunny yard, quiet, nr Davis T, no smoking, no pets, \$750/mo. Diane, x3-4943 or 391-5095 before 9pm.

Panther Pond, Me: 6BR hse on 8 acres, 2 bath, 3fp, LR, studio, K w/dsh, scr porch, boathse w/canoe, O'Day Widgeon, 12' alum boat, avail through Sept 7, \$1100/wk. Linc x4516 or (508) 369-7782 evgs.

Revere, Cushman Ave., nr Rte 1 & T, v lg, clean walk-in studio w/fl K, pking, w&d, fp, \$475 incl all utils. x3-8012 or 871-2608

Roslindale: 2/3BR sgl fam home w/semi priv yd, nr T, sunny, quiet, safe, avail on temp basis, price negotiable. Maureen, x3-5049 or 259-0885.

St. Maarten, Caribbean, Pelican Resort, sleeps 4, avail 10/31-11/7, 11/7-14; also for sale. Call (603) 367-4377.

Somerville: lg furn studio w/slp alcove, Q bed, cable, laundry, patio, pking, nr Davis Sq, Red Line, \$850 inc util, avail 4-mo minimum. Call 625-8847.

Somerville: 2BR, 2 bath mod condo, 2 pking spaces, 5 min walk to Porter Sq & T, \$148,000. Ellen, x3-0117 or 623-8893, lv msg.

Somerville: Porter Sq, 2BR mod apt nr T & shopping mall, ideal for professionals & PhD students, 1-car prkg, avail immed, \$770/mo and up. Call 527-3431 eves & wknds.

Somerville, bet Porter & Union Sq, 4 rms, fst flr, porch & yard avail, avail Aug/Sept, PPROX 1 MI TO Harvard Sq & MIT. John, 666-0534 evgs.

Thompson Lake, Me: 6 rms & loft, shorefront, fp, wd stove, laundry, dish, all linens, mooring, slps 6+, no pets, monthly, biweekly. Call 438-4358.

Vermont: lakefront cottage in woods on beaut lake, grt swimming, canoeing, fishing, hiking, BR, lrg LR, dining area, ktchn, shower, deck, \$450/wk. Mrs. Rodwin (802) 472-6675.

Wakefield, 1BR condo, ht & hot water incl, walk to train, avail 9/1, \$560/mo. Joan, x3-4080 or 942-7105.

Watertown: Mt Auburn, 4BR w/bus to Hvd outside, nr shopping mall, newly remod & avail immed, ideal for college & intl students, \$265/pp or \$950 for apt. Call 527-3431 eves & wknds.

2 Houses to rent: Wilmington, furn 4BR, 2 bath, 30 min to MIT, Lease 9/1-5/31, \$1800/util; Andover, 3BR, 1 bath, 1BR apt in bsmt, \$1500/util; both with sec dep and last month's rent. Jerry (508) 657-7655.

■ **WANTED**

Twin sz bed or futon w/frame; chest of drawers; desk w/drawers. Sharlene, x3—0014 or 252-9167.

Experienced dressmaker needed to reproduce clothes from photos, salary negot. Call 876-0302 after 11am.

Housesitter(s) 8/18-9/4 to care for 2 cats and plants, quiet area, 10 min bus ride to Harvard Sq, no smoking. Alfred, 646-8618.

Young woman (18-25) to teach English to Austrian girl in Tirol, learn German in cultured family Walter, 625-4986.

■ **ROOMMATES**

M/F to share Allston/Brighton sunny apt in old Vict home, own BR, hrdwd flrs, yd, pking, nr T, 10 min to MIT, no smokers, pets, \$400/mo. Rita, x3-3931 or Mia, 783-2842.

Grad student for lg Camb'port apt, LR, lg K, porch, laundry, no pets, smoking in room only, now or 9/1, \$320/mo incl ht. Henry, x3-0315.

Cambridge/Watertown: recent F grad sks Frmmte to shr clean 2BR w/lrg ktchn, new appl, lrg LR, frplc, off-st prkng, 1.5 blocks to pub trans, no smks/pets, \$400+utils/mo. Call 926-0047 evenings.

Rmmate to share lg Billerica home 7 miles from Lincoln Lab on Rte 4, clean, nice yard, avail 9/1, \$350/mo+ 1/2 utils. Neil, Linc x0511 or (508) 667-2496 evgs.

Cambridge, 3 seek m/f for 4BR, 2 bath apt bet Cent & Harv Sqs, sunny, spac, nr #1 bus, shops, pref resp non-smoker, avail 9/1, \$250/mo. Arvind, x3-0733 or 492-7623.

Arlington: 3F seek M/F for 4BR apt, no smokers, pets, lg apt w/2 porches, off Mass Ave, \$275/mo. Suzanne, x3-8195 or 641-3728.

■ **CARPOOL**

Ride wanted to 2BR w/ Marshfield. Susan, x8-9131.

■ **LOST AND FOUND**

Found: pocket digital alarm clock in Rockwell Cage first wk in July. X3-5788.

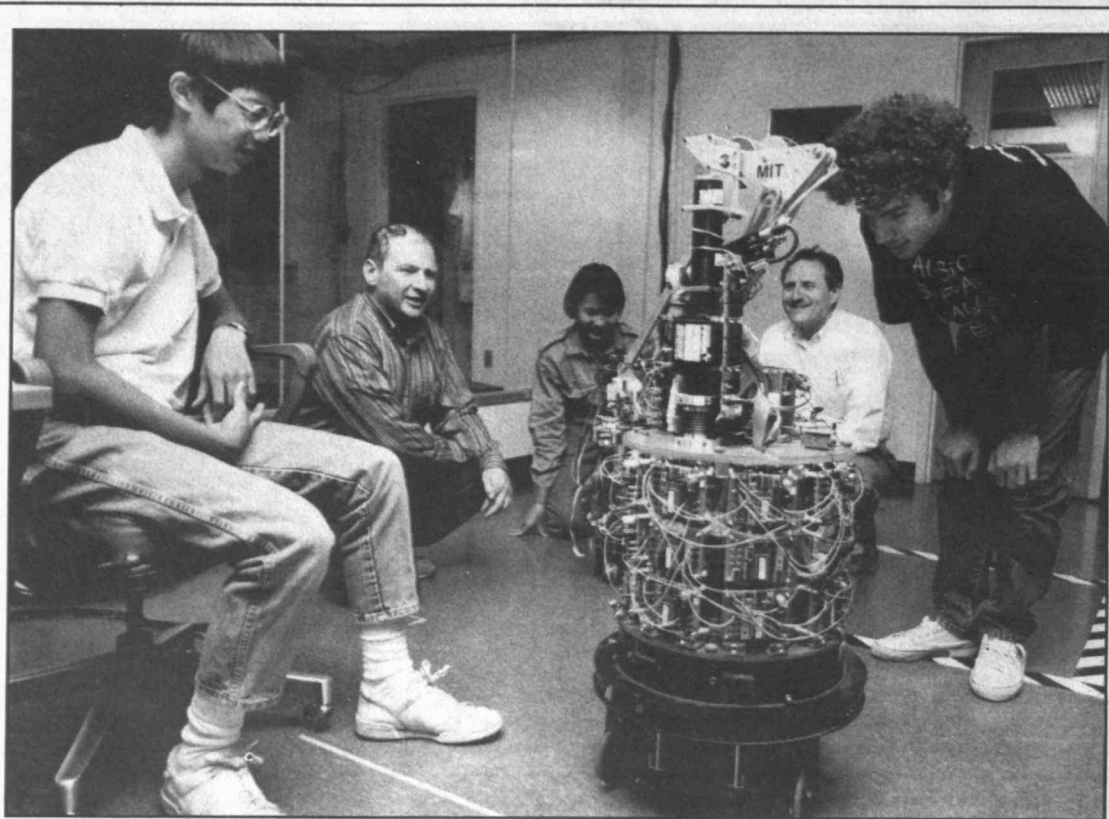
■ **CHILD CARE**

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

■ **MISCELLANEOUS**

Timeshare week avail, vacation anywhere in US & beyond, choose from 100s of resorts w/full amenities, slps 2-6, \$350/US, \$400/int'l. Christine or Francis, 494-1851, lv msg.

It's a Fact
Two noted Finnish architects are represented on the MIT campus: Alvar Aalto designed the Baker House residence hall, and Eero Saarinen designed Kresge Auditorium and the MIT Chapel.



SUMMER STUDY—66 top high school students from all over the world are summer scholars at the ninth annual Research Science Institute being held at MIT. Above, from left, John Hsu of Colorado, Professor Hal Abelson of MIT, Michele Teo of Singapore, Dr. Mark Saul of New York and Momchil Georgie of Bulgaria examine a monot at the Artificial Intelligence Laboratory. Photo by Donna Coveney

Many Support MIT in Lawsuit

(continued from page 1)

against the state of Mississippi for obstructing equal access to state colleges. In that case, the Department of Justice claimed that Mississippi was obligated to 'ensure that each of its young people be free to choose among all that the state has to offer, limited only by ability and not by race.'

"Here, however, the Department of Justice maintains that it is illegal for private colleges to work cooperatively toward the same result," MIT wrote.

MIT cited a recent decision in the National Organization for Women, Inc. v. Scheidler, handed down June 29 in the Seventh Circuit Court of Appeals (Indiana, Illinois, Wisconsin). MIT said, "The Seventh Circuit noted that 'the [Sherman] Act was not intended to reach the activities of organizations espousing social causes' but rather 'was intended to prevent business competitors from making restraining arrangements for their own economic advantage.'"

The Seventh Circuit also commented in the case that "it is hard to ignore the suspicion that the facts have been forced into an antitrust mold to achieve federal jurisdiction."

Referring to the Antitrust Division's financial aid case against MIT, MIT said, "In the present case, too, it is hard to ignore the suspicion that what gives rise to this litigation is a dispute over social goals, and that this dispute has been awkwardly forced into the antitrust mold by regulators who, because of their limited authority, have no more appropriate tool. Like the Seventh Circuit, however, this Court should not permit the antitrust laws to be misused either to intervene in a dispute over social goals, or to expand the jurisdiction of an agency reaching to explore new horizons."

MIT said the "cooperative activity involved in Overlap can also be justified under a rule of reason analysis for non-economic reasons." MIT cited the dissent by US Supreme Court Chief Justice William H. Rehnquist and Justice Byron White, in *National Collegiate Athletic Association v. Board of Regents of the University of Oklahoma* (1984), in which they said:

"The primarily non-economic values pursued by educational institutions differ fundamentally from the 'overriding commercial purpose of day-to-day activities' of engineers, lawyers, doctors, and businessmen, and neither Professional Engineers nor any other decision of this Court suggests that associations of nonprofit educational institutions must defend their self-regulatory restraints solely in terms of their competitive impact, without regard for the legitimate noneconomic values they promote."

MIT said the Antitrust Division's expert economic witness, Dr. Keith Leffler, based his initial conclusions on economic theory of profit-maximizing organizations, using unreasonable benchmarks. The government expert used "an uncontrolled comparison" involving "a limited set of data" and claimed as significant a statistical regression that MIT asserts was not significant. MIT also said that a second Leffler regression contained data from only 15 schools and therefore was "statistically suspect." MIT said, consequently, that "Dr. Leffler's conclusion is not supported by the evidence." By contrast, MIT said, its expert economist, Dr. Dennis Carlton, performed a detailed, statistically sound analysis of the economic impact of Overlap on the average net revenue per student received by the Overlap colleges. It revealed that there is no statistically significant effect of Overlap on average net revenue, and therefore no scientific basis for the conclusion that Overlap increased price. The results reveal that the most likely effect of Overlap was to reduce average net revenue, not increase it, MIT asserts.

MIT brought out some other points from the trial in a 68-page separate document, "Proposed Findings of Fact and Conclusions of Law," it filed with the federal district court.

—Approximately 99 percent of all federal financial aid awards are based solely upon need.

—Federal aid in loans and grants in

1988-89 satisfied only 30 percent of the average \$13,300 need of MIT financial aid students, as calculated under the federal formula; 90 percent of this federal aid was awarded in the form of loans and 10 percent was awarded in the form of grants. The aid awarded by MIT was 90 percent in the form of grants and only 10 percent in loans.

—If a student receives any federal money based on financial need, all financial aid funds—both federal and institutional—must be based on need. To award funds beyond need is an "overaward" prohibited by the US Department of Education, which audits college financial aid programs to ensure compliance with the law. Thus, if schools were to provide "no-need aid" as the Antitrust Division seeks, the schools would have "a strong incentive to channel" such aid "to wealthy students."

—The US Department of Education conducts comprehensive financial aid audits of colleges and has been aware of the Overlap process for three decades. In 1989, the Department awarded MIT a Certificate of Superior Performance for its compliance with the federal regulatory system concerning financial aid practices.

—Of the approximately 1.2 million students who enrolled during the 1991-92 academic year in a four-year college or university in the United States, only about 1 percent enrolled at MIT or one of the Ivy League schools.

International 2.70 Symposium is Open

(continued from page 1)

team a week before the contest. Each team will have a student from each of four countries, MIT, United States; Tokyo Institute of Technology, Japan; Cambridge University, United Kingdom; and Technische Hochschule Darmstadt, Germany.

Students and professors from Seoul National University, South Korea, and Sao Paulo, Brazil, will be observers. The Korean and Brazilian universities may participate in the 1993 contest.

Professor West said the symposium on technology education on TV will address a pro-active posture by universities.

"Until recently the role of universities and their faculty has been primarily as passive suppliers of material that is selected and projected by television producers," he said. "However, there is an increasing interest in many universities to play a more active role in projecting technology on television."

"We will discuss the value, intellectual or otherwise, of universities projecting their activities on television, collaborating with television producers in these endeavors, and fashioning their activities to better conform to the needs of television."

The symposium on international design education will focus on the fact that engineering design is "essentially collaborative," Professor West said. "Design is therefore a social process requiring communication and cooperation between members of the design team..." Educating engineers to work effectively in an international environment requires the development of ways to bridge differences in languages and culture. "However, engineering schools have little experience with this type of educational endeavor."

The International Design Competition, now in its third year, provides a workshop to study how student engineers from different countries collaborate in a creative design endeavor, Professor West said.

Professor M.B. Bever Dies

Michael Berliner Bever, a retired professor of materials science and engineering and a founder of the scientific study of recycling, died July 17 of cancer in his Cambridge home. He was 80.

Born in Berlin, Germany, Professor Bever earned a Doctor of Jurisprudence degree from Heidelberg University in 1934. He then emigrated to the United States and received an MBA from Harvard University in 1937. After a brief period in business, he attended MIT, earning a Doctor of Science degree in metallurgy in 1944.

An outstanding metallurgist, Professor Bever pioneered the application of thermodynamics to the mechanical properties of metals. He was also a leader in the use of calorimetric techniques to explore the energetics of the ordering of atoms in crystalline structures. During this period, he became one of the first practitioners of the emerging field of materials science and engineering.

In the early 1970s, Professor Bever became interested in conservation and recycling, particularly the environmental and economic aspects of the production and consumption of materials. Drawing on his backgrounds in law, management and metallurgy, he developed an integrated scientific approach to recycling. He received an award from the National Association of Secondary Materials Industries in 1972 in recognition of creating the first course in the country, if not the world, on the economics and materials aspects of recycling.

JOSEPH S. BROWN

Joseph S. Brown, 76, of Woburn, a retired engineer in Physical Plant, died on June 5. He had worked at MIT from 1969 until his retirement in 1984. Mr. Brown leaves his wife, Mary Louise Brown.

JOHN I. CARLSON JR.

John I. Carlson Jr., 66, a senior lecturer in civil engineering since 1991, died unexpectedly on June 30. Before joining MIT Mr. Carlson had been commissioner of the Massachusetts Division of Capital Planning and Operations.

He is survived by his wife, Doris Garabedian Carlson of Winchester; two sons, Kristen W. of Waltham and John I. III of Tamarack, Fla.; two daughters, Laura E. Bernieri of Andover and Stephanie Carlson of Brookline; his mother Laura W. Carlson of Wellesley Hills, and four grandchildren.

JAMES E. DALTON

James E. Dalton, 59, administrative officer in mathematics, died on July 15, following a long illness. He had worked at MIT since 1963.

Mr. Dalton leaves his wife, Nancy Aftuck Dalton of Arlington; his mother, Alice C. Dalton of Marlboro; two daughters, Susan McGoldrick of Auburn and Elizabeth A. Deady of Belmont; five sons, James E. Jr. of Woburn, David A. of Medway, and Joseph W., Thomas E. and Timothy J. Dalton of Arlington, and eight grandchildren. Memorial contributions may be sent to the American Cancer Society or to Hospice Care, Inc., 21 Maple Street, Arlington, 02174.

JOSEPH K. FISH

Joseph K. Fish, 58, of Boston, who retired as a research staff member at the Bates Linear Accelerator in April, died on July 5. A graduate of Tufts University, he had worked at MIT since 1968.

Mr. Fish is survived by his wife, Andrea Santillo; a son, Karl Fish of Gloucester; a daughter, Nancy Fish; two stepdaughters, Natasha Balsom of Cambridge and Lisa Conley of Madrid, N.M., and eight grandchildren.

ROBERT M. MARTINSON

Robert M. Martinson, 67, of Concord, a retired staff member at Lincoln Laboratory, died on July 7. He worked at Lincoln from 1953 until his retirement in 1986.

Mr. Martinson is survived by his wife, Marie J. Belanger Martinson; his father, Mansfield P. Martinson of New-

He was the author of more than 150 scientific papers, and an editor of several books. He served on numerous national panels and consulting bodies. His culminating contribution was as Editor-in-Chief of the innovative and comprehensive eight-volume *Encyclopedia of Materials Science and Engineering*, published by Pergamon Press in 1986. Three weeks before his death he completed editing the *Concise Encyclopedia of Materials Economics, Policy and Management*, one of several supplementary volumes that followed the original eight-volume work.

Professor Bever taught at MIT for more than 50 years, during which he supervised more than 40 graduate-level dissertations and was an influential teacher of many active scientists.

"Michael Bever taught more than the skills of science," said a former student, Dr. Praveen Chaudhari, an IBM researcher. "His background in law and management, his keen interest in music and literature and his strong sense of human values and the dignity of man shaped his interaction with students."

Another former student, Jerome B. Cohen, dean of the McCormick School of Engineering and Applied Science at Northwestern University, said: "Michael Bever was truly a teacher's teacher. He has made us see the responsibility we had to keep on learning new things and to communicate well what we learned."

Professor Bever was a fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Society for Materials; a member of numerous professional organizations; an overseer of the Boston Museum of Science, and a member of the Harvard Musical Association.

He leaves his wife, Marion (Gordon) Bever; two sons, James of Cambridge and Thomas of Rochester, N.Y.; a daughter, Ivers Bever of Cambridge; a brother, Christopher of Chevy Chase, Md.; and five grandchildren; a sixth grandchild, Michael Gordon Bever, died before him.

A private family funeral was held on Monday, July 20. There will be a public memorial service at MIT in late September.

ton; a son Robert M. Jr. of Leominster; daughters, Suzanne Harrington of Leominster, and Carol A. and Jane E. Martinson, and two grandchildren. Remembrances may be sent to the American Cancer Society or to the Emerson Hospital Hospice Program, Concord, Ma. 01742.

ALLAN MERRILL

Allan Merrill, 85, a retired service staff member in chemical engineering, died June 18, at the home of his niece in Andover. Mr. Merrill worked at MIT from 1946 until his retirement in 1972. He leaves his wife, Hazel, and a niece, Leslie Salerno.

MARIO PEDRINI

Mario Pedrini, 89, of Arlington, a former carpenter in Physical Plant, died May 19. He had worked at MIT from 1946 until his retirement in 1969.

He leaves two daughters, Helen Mazurek of Arlington and Claire Gillis of Melrose; a son Richard Pedrini of Arlington; nine grandchildren and eight great-grandchildren.

RICHARD ROSS

Word has been received of the June 4 death of Richard Ross, 51, of Odessa, Texas, following a long illness. Mr. Ross was an editor at the MIT Press from 1979-89. He is survived by a brother, John Ross, also of Texas.

ELMER STEPHENS

Elmer Stephens, 80, of Billerica, a retired staff member at Lincoln Laboratory, died on May 27. Mr. Stephens worked at Lincoln from 1952 until his retirement in 1977.

He is survived by his wife, Esther Marie Stephens; two sons, Donald M. of Bedford, and Robert W. Stephens of Melrose, and a daughter, Judith Wesinger of Billerica.