

New Hiring Procedure Set for Staff

A procedure for staff appointments that will help to insure full consideration of minority and women candidates for staff positions at the Institute will be initiated August 1, Chancellor Paul E. Gray has announced.

The new procedure will require department and laboratory heads to demonstrate that a serious search has been made for women and minority candidates before any offer of appointment is made to a person not now an employee of MIT for a full-time DSR, administrative, library or medical staff position with a term of one year or more.

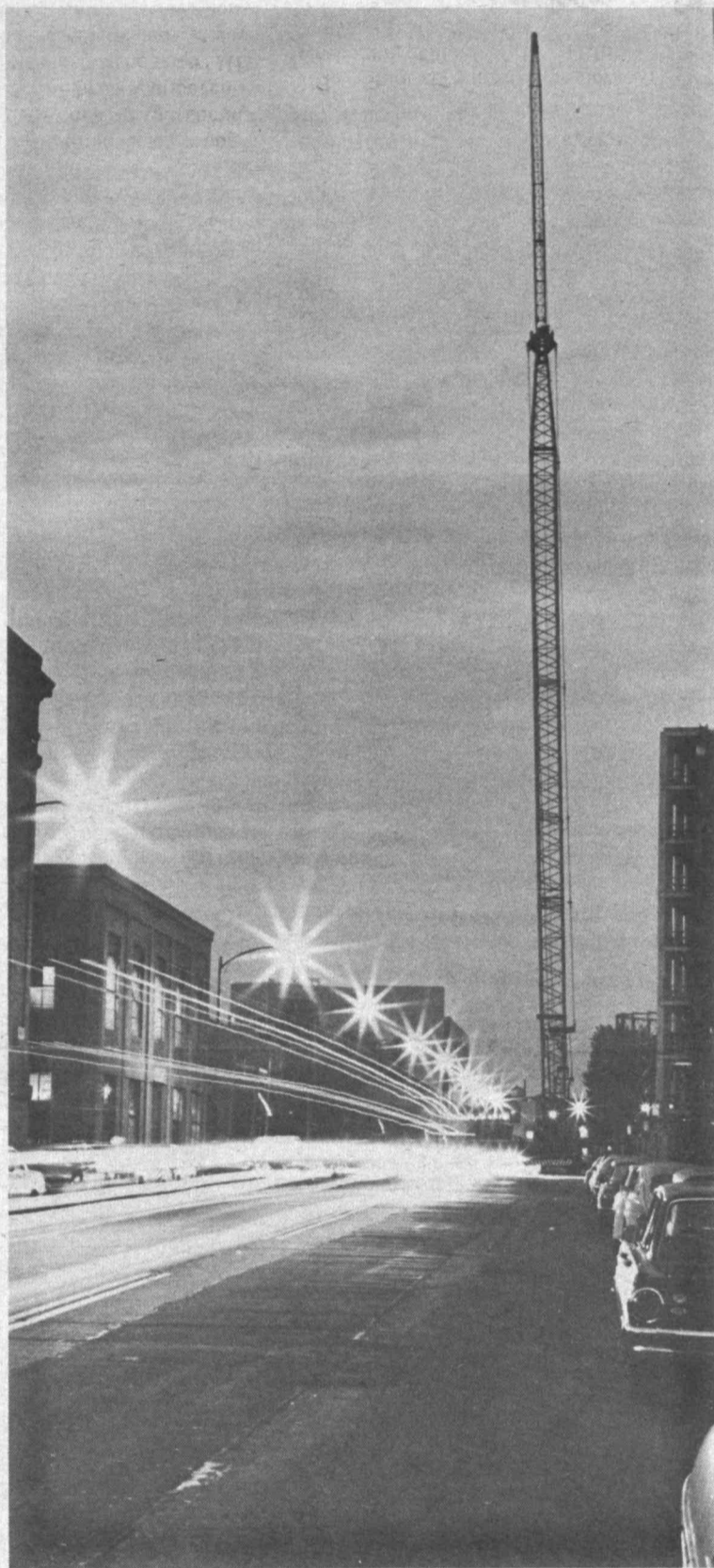
A similar requirement concerning faculty appointments which was implemented last December has been "quite effective," according to Chancellor Gray.

In order to provide assurance that a serious search has been made, department and laboratory heads will be required to submit the following information:

1. The means used by the department to search for candidates for the position being filled.
2. Information about the size of the pool of qualified women and minority candidates for the position.
3. The number of women and minority candidates found, and the method used to evaluate them.
4. Offers made to women and minority candidates, their responses to the offers, and reasons given for failure to accept.
5. The reasons for rejection of any women and minority.

In the event that recruitment for a staff position is carried out exclusively by or jointly with the Office of Personnel Relations, the

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This towering crane near the construction site on Vassar Street caught the eye of Joshua Collins of the Draper Photo Lab. Josh has been recording interesting sights around the Institute for several years. See story on page 3.

—Photo by Joshua Collins

Richardson Named Admissions Director

Peter Hughes Richardson, associate director of admissions at MIT since 1964, has been appointed director of admissions effective September 1, succeeding Professor Roland B. Greeley, who is retiring from the Institute August 31.

Announcement of Mr. Richardson's selection for the post was made by Chancellor Paul E. Gray.

In making the announcement, Chancellor Gray emphasized the value of Mr. Richardson's extensive admissions experience and knowledge of the Institute in providing leadership in this key position.

"The Admissions Office is often a prospective student's first contact with MIT," Chancellor Gray said. "An understanding of the educational opportunities open to a young man or woman at MIT, and the impression he or she receives of the Institute and its people are strongly influenced by that contact."

"Peter Richardson's insight into the nature of the educational experience at MIT will help him and his associates to convey to a new generation of prospective students the diversity of the Institute and the directions of change in all its branches—in science and engineering, in the humanities and social sciences, in architecture, urban studies, and management. His background in secondary school education provides a sympathetic understanding of the dilemmas of choice for the young person considering college or university education and the wisdom to shape admissions advice to guide that choice soundly."

Mr. Richardson has worked closely with the Faculty Committee on Undergraduate Admissions and Financial Aid, which is responsible for admissions policy at MIT. This experience, in addition to his participation in the Institute for Educational Management at Harvard University last year, places him in a position to understand and reflect the views and values of the faculty in his leadership of the Admissions Office.

Chancellor Gray noted that Mr. Richardson will face a major challenge in the years immediately ahead in conveying to prospective students confronted with the rising costs of higher education the life-time value of an education of the calibre of that at MIT. "I am confident that Mr. Richardson has the energy and

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Scientist Injured in Alaska

After an adventurous rescue from the Juneau ice fields in Alaska, during which it took six members of his scientific party three hours to move him down the glacier to a point where a helicopter could lift him off, Gene Simmons, professor of geophysics at MIT, was flown with a severely broken leg to University Hospital in Seattle, Washington, last week.

Professor Simmons and his research team were in the final stages of a series of tests of the lunar Surface Electrical Properties (SEP) experiment scheduled

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Students Discover Revolutionary Warship Remains

Two MIT students working on a Sea Grant Summer Laboratory project being conducted jointly by MIT and the Maine Maritime Academy, have discovered the remains of the Revolutionary War brigantine *Defense*, scuttled in August of 1779 during the defeat of the Massachusetts Expeditionary Force by a British fleet in Penobscot Bay.

The two students are part of a team that has been searching for two vessels, the *Defense* and the *Active*, both known to have been lost on the eastern shore of Penobscot Bay. They are Richard Chertow, of Syracuse, New York, and Edward Murphy of Garden City, New York, both juniors.

The site on which the *Defense* was discovered was pinpointed as

a result of historical research carried out over a period of several years by Dean Mayhew, associate professor of history at the Maine Maritime Academy.

Sonar soundings first located the *Defense*, almost exactly at the site specified by Professor Mayhew, in shallow waters of Stockton Springs, Maine. She had been scuttled there, according to contemporary reports, to avoid her capture by *H.M.S. Camilla*, after the defeat and dispersal of Commodore Dudley Saltonstall's fleet, which had been besieging British forces occupying Castine.

After sonar readings reported an underwater irregularity, Chertow and Murphy were the first student divers to descend and attempt to locate the sunken

vessel. Using diving suits and tanks, and equipped with an underwater camera, they found the *Defense* in extremely deteriorated condition. They brought a cannonball back to the surface as well as some bricks, apparently used for ballast. The two MIT students and subsequent divers also reported finding two cannons. On Friday, July 21, one of these was brought to the surface, and subsequently cleaned and placed in a tank for preservation. The cannon is a typical Revolutionary War cannon about a meter long with a bore some three inches in diameter.

Because of the historical interest in the find, and the Maine statutes governing ownership and protection of antiquities, the

Maine State Museum has issued a permit to the MMA MIT group to continue operations on a limited scale. Under the statutes, unauthorized access to a historical site is prohibited.

The Student Summer Laboratory began, coincidentally, on July 4. It is sponsored by the MIT Sea Grant Office, the Doherty Foundation, and the two educational institutions. The Sea Grant Program was established at MIT in 1968, when MIT received the first grant under the National Sea Grant Program, and its purpose is to coordinate and initiate diverse interdisciplinary research related to marine resources, ocean utilization and coastal zone development. The Student Summer Laboratory includes several other student-developed ocean

engineering and oceanographic projects and will end August 28.

The Student Summer Laboratory is under the joint leadership of Dr. Damon E. Cummings, assistant professor of ocean engineering, MIT, Lt. David Wyman, assistant professor of ocean engineering at Maine Maritime Academy and Keatinge Keys, administrative officer for the Department of Ocean Engineering at MIT. The search for the Revolutionary War vessel is being headed by Captain W.F. Searle, USN (Ret.) who was formerly the US Navy Supervisor of Salvage. Captain Searle is a private consultant for salvage and ocean engineering operations throughout the world and is a visiting senior lecturer in the Department of Ocean Engineering at MIT.

Richardson Takes Admissions Post *Simmons Recuperating from Fall on Glacier*

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resourcefulness this task requires, and I look forward to a period of continued effective and imaginative admission activity under his leadership," the Chancellor said.

Chancellor Gray added: "I am particularly pleased that the best person to succeed Professor Greeley was to be found within the Admissions Office itself. We wish to increase the career opportunities within the MIT administration for the many highly qualified men and women here, and Peter Richardson's advancement is in the spirit of that objective."

Mr. Richardson was born in Boston, May 28, 1924 and received his S.B. in General Engineering from MIT in 1948. After graduation he taught science and mathematics at Webb School in Claremont, California; Putney School, in Putney Vermont; and Pomfret School in Pomfret, Connecticut. It was at Pomfret that Mr. Richardson first became involved in admissions work, doing college counseling and becoming director of admissions at Pomfret.

After taking a Master's degree in guidance and psychology at the University of Connecticut in 1957, Mr. Richardson spent the year 1960-61 on a Fulbright grant at Athens College, Athens, Greece advising Greek students who wished to attend college in the United States. In 1964 he came to MIT as associate director of admissions.

Mr. Richardson has taken an active part in student life as well as community affairs. At MIT he has been a freshman advisor and the freshman soccer coach for the past two years. He was co-chairman of the National White Water Slalom Championships, Jamaica, Vermont, 1968-69, and in 1970 was chairman of the Weston Recreation Commission. He has served on the Weston School



New Director of Admissions Peter H. Richardson. —Photo by Margo Foote

Committee since 1970 and is also at present a counselor for the Huts program of the Appalachian Mountain Club.

Asked about his plans for the Admissions Office, Mr. Richardson said "My first aim is to live up

to the high standards set by my two predecessors, B. Alden Thresher and Roland B. Greeley."

Mr. Richardson lives with his wife, the former Corinne Smith of Providence, and five children at 38 Fairview Road, Weston.

Simmons Recuperating from Fall on Glacier

(Continued from page 1)

for the Apollo 17 mission to the moon. Professor Simmons, who was Chief Scientist of the Manned Spacecraft Center in Houston for two years and who has written guidebooks for Apollo missions 15 and 16, is Principal Investigator for the Apollo 17 SEP experiment.

Reached by telephone last week, Professor Simmons said: "The experiment is going great. The data taken on the ice gives us experience in the interpretation of similar data we expect to receive from the moon in December."

The SEP experiment will measure radio wave propagation through the lunar subsurface to a depth of about a kilometer. The technique cannot be used on earth, except in glacial ice, because of the high water content of terrestrial soil. Ice, however, is an extremely dry mineral, with a dielectric constant approximating that of the lunar regolith, an excellent conductor of electromagnetic energy. Professor Simmons has already tested the SEP equipment and technique on two other glaciers, one in Canada and one in Switzerland.

Professor Simmons broke his leg the evening of Sunday, July 16, when, on an inspection of the site of the experiment, he slipped on the snowfield and began to slide. "I was unable to check my slide," he said, "and as the incline became steeper, I tumbled some and after sliding between 200 to 300 feet eventually wound up with my leg caught between a snowdrift and bare rock. At that point, the incline was dangerous. It was a real adventure-type rescue. After radioing for the helicopter, six people from the camp took three hours to work me down to a place where the helicopter could land safely."

X-rays taken that night in

Juneau, revealed that Professor Simmons had suffered a fracture of the femur, just below the hip, and the doctor recommended he be flown the next morning to be operated on at University Hospital. The operation took several hours and appears to be successful. Professor Simmons expects to be discharged from the hospital the end of this week.

New Staff Rules Set

(Continued from page 1)

department must submit documentation of the Office of Personnel Relations' efforts to recruit women and minority candidates.

This information will be reviewed first by the responsible dean, vice president or the provost, and then by a special staff appointment subgroup of the Academic Council, chaired by the Chancellor, composed of the vice presidents, the Provost, the deans of the School of Science and the School of Engineering, and the deans for Student Affairs and Institute Relations.

Alan Sonfist Drops Suit

CAVS Fellow Alan Sonfist has dropped his suit against Automation House, an exhibition hall in New York City.

Mr. Sonfist had brought the suit against the exhibitors after his show, "Army Ants: Patterns and Structures," was closed because of the death of the principals. The artist claimed that the two million insects had perished through the negligence of Automation House.

Mr. Sonfist dropped the suit when he received an apology from Automation House.

Michael Feirtag Joins Staff of Technology Review

Michael D. Feirtag, '72, has been appointed assistant editor of *Technology Review*, effective August 1.

Mr. Feirtag will succeed O. Reid Ashe, '70, who has resigned to accept an editorial position on the Charlotte, North Carolina, *Observer*. Announcement of the appointment was made by John I. Mattill, editor of *Technology Review*.

A native of Elmont, New York, Mr. Feirtag majored in physical

sciences at MIT. He was a member of the staff of *The Tech* and of the Baker House Judicial Committee. Earlier this year he received a Robert A. Boit Prize for writing and a William L. Stewart, Jr., Award for contributions to extracurricular activities.

Placement Interviews

The McDonnell Douglas Astronautics Company will be at the Career Planning and Placement Office on Tuesday, August 1.

Interviewers are seeking S.M. and Ph.D. candidates in physics, electrical engineering and aeronautics and astronautics for positions in fields such as guidance and control, electro-optics, sensor capabilities and Fortran programming.

The company is also looking for S.B. and S.M. candidates in civil, mechanical and electrical engineering for opportunities in design, development, operations research, systems engineering and testing.

Interested persons may call Miss Karen Rosa, Ext. 4733 to make an appointment.



The Great Court offers a shady haven on hot and humid afternoons.

—Photos by Margo Foote

Who's New in the News

Raspberry and First Poems, a 30-page book of poetry by Karen Goodall, a member of the Radcliffe Institute who works part-time in the Bursar's Office, will be published August 19 by the Shore Publishing Company of Milwaukee.

Robert E. Durland of the Purchasing Office will serve for the second consecutive year as chief referee at the National Pistol Championship at Camp Perry, Port Clinton, Ohio from July 29-August 3.

TECH TALK
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Please address all news and comment to the editorial office, Room 5-111, Ext. 3277.

NE Power Adequate

New England has so far been fortunate in having sufficient power to meet the increased needs brought on by the present heat wave.

There are two main reasons for this according to Thomas E. Shepherd, Jr., Physical Plant superintendent of utilities. Limited permission has been granted to operate new nuclear power generating plants which have augmented the available power. Also, there have been no serious breakdowns in power

sources so far.

As a result New England has been able to meet its own electrical needs and in addition, has been supplying some power to New York.

Throughout the past year, MIT has been implementing a program to conserve energy. In doing so, the Institute, along with many other users of large amounts of electrical power, has been able to make significant savings in its power expenses.

Electric Saving Tip

Several New England electric power companies have been offering tips on ways to use electrical appliances efficiently and economically.

Dishwashers, clothes washers and dryers: run all with full loads. Partial loads use the power required for full loads and, in the case of the washers, use as much water as well.

Ranges: plan to use the oven for more than one item at a time, and avoid peeking into the oven as much as possible. Roast meats at temperatures of 325-350 degrees F. Temperatures of 450 degrees F use 20-30 percent more heat and result in meat shrinkage as well.

Refrigerators and freezers: plan

ahead and open the door(s) as few times as possible.

Air conditioners: choose the most comfortable setting and leave it at that setting except when the room will not be used for a prolonged period. Use shades or draperies to cut down heat transmitted through windows and glass doors.

Water heaters: set the thermostat down to the hottest temperature your hands can stand, usually about 140 degrees F. If there is a dishwasher, the temperature range should be 160-180 degrees F.

Lights, radio and television: turn off when not in use.

Draper Photo Lab Technician Is Also a Successful Photographer

For some photographers, processing and printing film is a drag.

But Joshua Collins of the Draper Photo Lab enjoys it. His job there represents a breakthrough into his chosen profession. Josh says he is

"printing like mad and loving it."

Last winter when a position opened in the Photo Lab, someone at Draper recalled reading in *Tech Talk* about Josh's ambition to find a job in photography two years before. When asked if he was still

interested, Josh happily accepted the opportunity.

Until then Josh had been an electric utilityman in Physical Plant, while continuing his studies in photography. Josh's interest in photography began when he was still in high school in Barbados. Later he studied in London and New York before coming to Boston. He used the Tuition Assistance Plan to continue his studies while working at MIT.

Although he does very little actual shooting for his job at Draper, Josh almost always carries his camera with him to record interesting things he sees. Many of these pictures wind up in contests he enters. Josh has won several prizes in *Boston Globe* photo contests, though he has yet to win a major award.

This spring Josh entered Photo-vision '72, a large photography exhibition sponsored by the Boston Center for the Arts. One of his pictures was selected for inclusion in the show, and later chosen as one of only 100 for a traveling show which will tour New England and other areas of the country for the coming year. The picture, appropriately, was one of a row of skylights on top of the Institute's main building.



Joshua Collins in the Draper Color Lab.

—Draper photo by Les Cuneo

Schein: Professional Education Needs Change

Professional education must change dramatically to meet the needs of our rapidly changing and complex society, according to Dr. Edward Schein, professor of organizational psychology and management in the Sloan School.

Dr. Schein, author of the Carnegie Commission's *Professional Education: Some New Directions*, says that an interdisciplinary approach, using applied behavioral sciences is necessary to allow the professions to keep up with society's fast paced change.

"Changing values have created new client systems and have led students and young practitioners to call for a rethinking of professional roles. In particular, a higher value in being placed on working for the poor, the ignorant, and the powerless, even if those groups do not see themselves as clients and cannot afford to pay for services. The new values call for the professional to be an advocate, to set about to improve society, not merely to service it, to become more socially conscious, to be more of an initiator than a responder. In these new roles the professional is asked to challenge some of the norms of his own profession and to fight the bureaucratization and standardization that have occurred in many professions.

"The kinds of change we have been describing have affected most of the major professions—medicine, psychiatry, social work, law, architecture, engineering and teaching. The resulting strains on the professions show up most clearly in professional schools, where some of the faculty and students call for reform and rethinking of professional roles while other faculty and students call for a tightening of professional boundaries and a return to basic concepts and skills.

"The growing specialization of professional fields has led to some fragmentation of, for example, schools of architecture and schools of engineering, leading to further differentiation of the fields and some recombinations (e.g., of some areas of medicine and some areas of engineering into biomedical engineering). Some segments of the academic community continue to work single-mindedly on basic research while other segments and growing numbers of students are calling for a slowdown of basic research and or a rethinking of emphasis on new technological advances in terms of their potential social consequences."

Dr. Schein believes that applied behavioral science is an important tool to the professional. It is necessary to enable the professional to be a member and a leader in small groups and it teaches him how to learn to cope with rapidly changing society and his own profession.

Applied behavioral sciences can teach a professional interdisciplinary competence, the ability to communicate within interdisciplinary groups which is a necessity for coping with today's complex problems. Applied behavioral science means not simply being aware of psychology, sociology and anthropology on

an intellectual plane but on a personal one.

"...the behavioral sciences have made considerable advances in understanding the psychology and sociology of client systems, the processes by which learning and socialization take place, the theory and practice of planned change, the theory and practice of giving and receiving help, group dynamics, and leadership phenomena. All these areas are of increasing relevance to the professions.

"The state of ferment in the professions and in the educational establishment makes this a good time to rethink education for the professions. It is increasingly obvious that the professional of the future must have a different set of skills, a different self-image, and a different set of attitudes from the professional of today."

Dr. Schein emphasizes that it is possible to effect change in professional education.

"Professional education can be changed by a deliberate yet controlled process. We do not have to rely on the slow process of evolution, nor would it be appropriate or desirable to have a more drastic revolutionary kind of educational reform. We seek a process that lies somewhere between these two extremes and that has worked well in the transformation of a variety of other kinds of organizations. The particular relevance of planned change derives from the fact that we are dealing with organizational change in a setting where there are strong forces opposing the change. We do not mean, however, that changes should be imposed on the professional schools. Our concept of planned change implies a heavy involvement of the organization in the planning of its own change programs.

"Planned change involves the learning of new concepts and ideas—new attitudes and values, and new patterns of behavior and skills. Part of any planned change model must therefore be a model of how individuals in a social system learn and thereby transform the social system. This learning has to occur in a situation in which, by virtue of their membership in the social system, individuals already have ways of thinking, feeling and acting to which they are committed and which make sense to them... The essence of a planned change process is the unlearning of present ways of doing things.

Dr. Schein presents a model for change which has three steps—unfreezing, changing and refreezing. The essence of unfreezing he says is "a proper balance of 1) disconfirming forces that do arouse discomfort, tension and threat, and 2) forces that create sufficient psychological safety to make it possible for the person to pay attention to the disconfirming cues and develop a motivation to change rather than resist change."

In the changing process "identification or imitation is the easy way to produce change, but it runs the risk of introducing changes that will not survive. Scanning for new information and integrating such information

into a solution that fits the particular system is slower and more costly but is more likely to produce innovations that will survive."

Change is not successfully concluded until the new beliefs, attitudes, values or behavioral patterns are integrated or refrozen both into the personalities of participants and into the culture of the system that is undergoing change.

"Barriers to change," Dr. Schein says, "reflect the attitudes and perspective of faculty members and/or practicing professionals, the structural rigidities of academic administrative procedures, calendars, curricula and physical plants and the structural rigidities of early career paths and occupational socialization practices. Given these barriers, a realistic way to bring about educational change is to find some educational innovations which can be fitted into or around the present system, innovations which will gradually encourage the kinds of flexibilities for which we have argued but which will not immediately threaten the basic structure of the school and the profession."

According to Dr. Schein, MIT has been a major innovator in undergraduate education. He cites some examples which he learned of and helped bring about during his tenure as Undergraduate Planning Professor between 1968 and 1970.

Independent study programs are another area where MIT has done successful experimentation. The Unified Science Studies Program (USSP) and Experimental Study Group (ESG) are both options as replacements for the regular sequence of required science and humanities courses. Both programs grant block credit for an entire semester of work without specific consideration of what the student worked on.

Concentrated study is another area of innovation. "In one experiment at MIT, a physics professor, engineering professor and mathematics professor decided to teach their courses in sequence rather than simultaneously, each taking one month and asking students to concentrate only on the material of that course for that month.

"The obvious advantage of concentrated study as a mechanism is that it can often be sandwiched into the existing calendar. Concentrated study also lends itself easily to use as a supplement to other learning modes," Professor Schein said.

Finally, Dr. Schein warns that although many educational innovations "have been proposed as the answer to whatever is said to ail the educational establishment... these mechanisms will ultimately be of use only when used in combination with each other in an integrated format. The educational change agent may well begin with just one of these mechanisms, but if the [innovator] stops when one of them has been accepted, he is not really helping the school move toward the kinds of flexibilities we have identified as important."

THE INSTITUTE CALENDAR

July 26
through
August 4, 1972

Please notify the Calendar Editor, X3279, Rm 5-111, of any activities which have been suspended for the summer. Thank you.

Events of Special Interest

Brass for Lunch*

A concert of brass chamber music. Thursday, July 27, 12:15pm, Student Center lawn.

Seminars and Lectures

Thursday, July 27

Informal Seminar on the Democratic Convention*

Speakers will be MIT people who attended the convention, including Walter Dean Berman. Center for International Studies. 12n-2pm, Shell Room, Rm E52-461. Bring your lunch.

Friday, July 28

New Phases in Liquid He³ Below 3mK*

Prof. David Lee, Dept of Physics, Cornell University. National Magnet Lab Seminar. 4:15pm, 2nd Floor Conference Rm, NML. Coffee, tea, 4pm.

Women's Forum

Women's Forum**

Every Monday, 12n, Rm 10-105.

Student Meetings

Peace Now*

New England Peace Action Coalition with Jeanette Tracy, comments and discussion. Monday, July 31, 8pm, Rm 7-106.

MIT Club Notes

Classical Guitar Society**

Concert guitarist Hugh Geoghegan is available for private instruction for intermediate and advanced students. Call Vo Ta Han, 661-0297.

Hobby Shop**

Open weekdays, 10am-4:30pm, duPont Gym basement. Fees: students \$6/term, community \$10/term. Call X4343.

Tiddlywinks Association*

Every Monday, 8-11:15pm, Student Center Rm 491.

Classical Guitar Society**

Special summer lessons for beginners, group and private. Mondays and Tuesdays. Call Vo Ta Han, 661-0297.

Judo Club**

Every Monday, Wednesday, Friday, 5pm; every Saturday, 1pm. duPont Gym Exercise Rm. Beginners welcome.

Outing Club*

Every Monday, Thursday, 5pm, Student Center Rm 473.

MIT/DL Duplicate Bridge Club**

Every Tuesday, 6pm, Student Center Rm 491.

Fencing Club**

Every Tuesday, 6-9pm, duPont Fencing Rm.

Beginning Mandarin Classes**

Chinese Students Club. Lectures on Tuesdays, 7:30-9pm; recitations on Thursdays, 7:30-8:30pm; through August 17. Rm 3-442. Admission \$5.

Glee Club**

Every Tuesday, Wednesday, Thursday, 5-6:30pm, Kresge. New members, especially tenors, welcome. Call Cyril Draffin, 247-8691.

Rugby Club

Summer rugby. Every Tuesday and Thursday, 5pm, Briggs Field.

Urban Vehicle Design Competition

Volunteer meetings. Every Wednesday, 3pm, Rm E40-250.

Nautical Association**

Basic Sailing Shore School, repeated every Wednesday throughout the summer, 5:15pm, Sailing Pavilion. Non-members welcome.

Science Fiction Society*

Every Friday, 5pm, Student Center Rm 421.

Student Homophile League*

Meeting and mixer meets Fridays, 8pm, Odd Fellows Hall, 536 Mass Ave, Cambridge. For gay help (anonymous) at MIT, call the student gay tutor, 492-7871 anytime.

Chess Club**

Every Saturday and Sunday, 1:30-5:30pm, Student Center Rm 491.

Scuba Club**

Compressor hours: 3-5pm, Tuesday & Thursday, Alumni Pool, \$1.50 non-members, 75 cents members.

Social Events

Muddy Charles Pub**

Join your friends at the Muddy Charles Pub, 110 Walker, daily 11:30am-7:30pm. Call X2158.

Friday Afternoon Club**

Music, conversation and all the cold draft Budweiser you can drink. Every Friday, 6pm, the Thirsty Ear in Ashdown basement. Admission: men \$1, women 50 cents. Must be over 21.

Movies

Wild in the Streets**

LSC. Saturday, July 29, 7pm and 9:30pm, Rm 10-250. Tickets 50 cents. Must show ID.

The Lower Depths**

LSC Kurosawa Retrospective. Sunday, July 30, 8pm, Rm 10-250. Tickets 50 cents. Must show ID.

Street of Shame*

Film Society. Monday, July 31, 8:30pm, Rm 10-250. Tickets \$1.

Music

The Music Library will be open from 9am to 10pm every Monday during the summer.

Dance

Folk Dance Club*

International folk dancing. Every Sunday, 7:30-11pm, Sala de Puerto Rico (exceptions to be posted).

Summer Dance Classes*

Dance Workshop. Beginning modern, Tuesday and Thursday, 12n-1:30pm; beginning ballet, Tuesday and Thursday, 3:30-5pm; intermediate/advanced modern, Monday and Wednesday, 7-8:30pm. McCormick Gym. Admission \$1.75/class. Hannah, 547-0398.

Folk Dance Club*

Balkan folk dancing. Every Tuesday, 7:30-11pm, Student Center Rm 407.

Modern Dance**

Tuesdays and Thursdays, 7-8:15pm, McCormick Gym.

Folk Dance Club*

Every Thursday, 7:30-11pm, Sala de Puerto Rico.

Friday Afternoon Dance Break*

International folk dancing on the Kresge Oval, every Friday (weather permitting), 12:30-1:30pm.

Exhibitions

Photography Exhibition*

An exhibit of photographs by local photographers including David Akiba, Roz Gerstein, Lawson Little, Mary Kay Simqu, Sean Wilkinson and others. Hayden Corridor Gallery through August 26. Free.

Autographed Music Scores

Exhibition of autographed musical scores in honor of Klaus Liepmann and the Choral Society. Music Library (Rm 14E-109) through the summer.

Hart Nautical Museum*

Exhibits include "Naval Undersea Research and Development Center," and "The Art of Rigging." Bldg 5, first floor.

Religious Services and Activities

The Chapel is open for private meditation from 7am to 11pm every day.

Roman Catholic Mass*

Every Sunday, 10:30am, Chapel. Special Holy Day masses, Tuesday, August 15, 8am in the Chapel and 12:05pm in Kresge Auditorium.

Divine Light Mission*

Discourses on the direct experience of Truth given by Guru Maharaj Ji. Every Monday, Wednesday, Friday, 7:30pm, Rm 4-145. Call 369-1603 (Concord).

Ananda Marga Yoga Society*

Group meditations. Every Tuesday, 5pm, Rm 14E-303. For information, call X3664.

Christian Bible Discussion Groups*

Every Thursday, 1pm, Rm 20B-031. Call Prof. Schimmel, X6739, or Ralph Burgess, X2415.

Islamic Society Prayers*

Every Friday, 12n, Student Center Rm 402.

Announcements

Society of the Sigma Xi certificates may be picked up daily from 2-5pm in Rm 5-230.

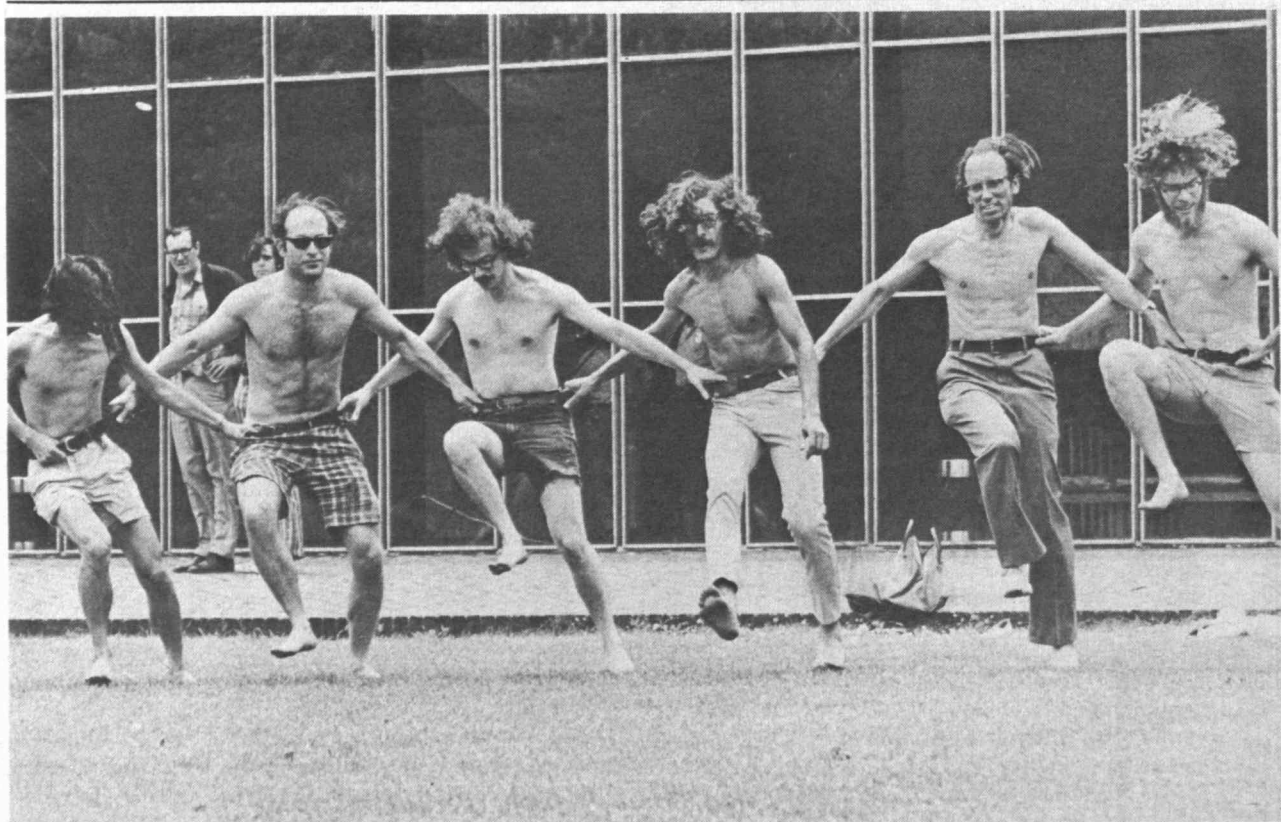
*Open to the Public

**Open to the MIT Community Only

***Open to Members Only

†Freshmen encouraged to attend

Send notices for August 2 through August 11 to the Calendar Editor, Room 5-111, Ext. 3279, by noon Friday, July 28.



Kresge Plaza is a lively place during the Friday Afternoon Dance Break.

—Photo by Margo Foote

Sea Grant Sponsors Marine Symposium

A marine symposium, open to the public by reservation, sponsored by the MIT Sea Grant Program and the Maine Maritime Academy, will be held at Maine Maritime Academy in Castine, Maine, July 31 through August 2.

The symposium is entitled "A Progress Report on some Sea-Grant Research and Study Programs—Economic and Environmental Aspects in the Development of Gulf of Maine Resources." It offers a series of topical discussions for those working in various Sea Grant Programs and other sea related research projects and provides an opportunity to exchange valuable experience and ideas.

Such key issues as Off Shore Oil Development, Fisheries Development for the Gulf of Maine, Solid Waste Disposal, and Oyster Culture, along with other pertinent sea-related seminars, will provide a forum in which public officials and private individuals may have an opportunity to learn of work in progress, make suggestions, and contribute to a broader understanding and appreciation of operations and objectives of research in the ocean frontier.

Keynote speakers of the symposium include Dr. Robert Abel, Director of the National Sea Grant Program, and Professor Ira Dyer, chairman of the Ocean Engineering Department at MIT.

Maine Maritime Academy in Castine has been chosen as the site for the symposium because of its excellent location and the convenience of the Academy's facilities which will make it possible for participants and attendees to bring their families.

Co-hosts of the symposium are, The Research Institute of the Gulf of Maine, the University of Maine, Maine Department of Sea and Shore Fisheries, Southern Maine Vocational-Technical Institute, University of Rhode Island, University of New Hampshire, Woods Hole Oceanographic Institute, Arthur D. Little, Inc., Ocean Research Corporation, and Raytheon Corporation.

Obituary

E. Ashley Davidson

E. Ashley Davidson, 51, of Wakefield and a member of the staff of Division 7 at Lincoln Laboratory, died July 20.

Mr. Davidson had been with the Institute since March of 1947. He is survived by his wife Priscilla and children Mrs. Norman Tate, Lorna J. Davidson and Jayne A. Davidson.

Funeral services were held in Wakefield on July 24.

New Delegates Surprising

Democratic Reforms Praised

One of the three MIT students who attended the Democratic National Convention in Miami Beach returned to Cambridge last week singing praises for the party's famous reforms that sent political rookies to fill 80 percent of the delegate positions at the convention.

In the eyes of Norman D. Sandler, a sophomore from Fairfield, Iowa, the Democrats' decision to require reasonable representation of all segments of the population on delegate slates was a huge success, but "not necessarily for the reasons, or even in the same way, that the party regulars expected."

Sandler, a political science major, and fellow students David M. Tennenbaum, a junior from New York City, and David H. Green, a sophomore from Mount Carmel, Pennsylvania, went to Miami under the auspices of the Undergraduate Research Opportunities Program to study the effects of party reforms. They returned with some 700 color pictures and nine hours of taped interviews, caucusses, press conferences and convention highlights.

"Of course, the simple fact that the convention came off relatively smoothly, on schedule, and with no violent splits between factions was surprising," explained Sandler.

"But what really surprised us

was the part the new delegates took in bringing about that success."

"When the McGovern Commission was establishing the reforms, one of their main objectives—and one of the biggest fears of the old-style politicians—was to give the blacks, women, young people and other minority groups a chance to unify and vote for their beliefs. That would have been a giant break with the political tradition of taking a stand on candidates rather than ideals.

"When the convention began, most people, including members of minority groups, expected unified support for many controversial minority planks in the platform—such as abortion, marijuana, and homosexual rights. The planks wouldn't necessarily have passed, but even a small amount of unified support would have torn the convention apart.

"But as the convention continued through caucusses and roll calls, it became obvious that unified factions weren't going to develop, and that the same ideological delegates who had caused so much speculation were lining up in the mainstream of the Democratic political tradition—behind George McGovern as the man who could best serve their ideals rather than behind the ideals alone.

"The result, we concluded, was that the new delegates did have a large and refreshing impact on the convention, but it was caused by their presence alone and not by their unity."

Sandler and his two colleagues are preparing a report of their observations and conclusions for publication later this summer. In addition, some of their pictures and at least portions of their report will appear in *The Tech* this fall.

Memorabilia Committee Needs Old Periodicals

The Committee on Memorabilia is attempting to collect complete sets of Institute periodicals for purposes of reference. So far the Committee has received full sets of Technology Review and of The Tech, but its collection of Tech Talk is incomplete. Persons who have any issues of Tech Talk from its beginning in 1957 through 1962 are invited to donate them to the Committee. Also missing are the issues of January 18, May 9 and September 12, 1963. Please call Warren Seamans, Ext. 4444 for further information.

Students Explore Role of Law in Social Change

Transportation, housing and the treatment of juvenile offenders are some of the social problems being tackled by 32 MIT and Wellesley students through a variety of law-related summer jobs.

The students are members of the Urban Legal Services Program (ULSP), one of several summer projects in community affairs sponsored by the MIT President's Fund for Community Affairs, the Undergraduate Research Opportunities Program, and the Community Services Fund. Outside funding is also provided by the National Science Foundation, the Governor's Committee on Law Enforcement, Wellesley College, and the Massachusetts Public Service Internship Program.

ULSP has attempted to provide skills to agencies working in law-related fields while at the same time giving students practical field experience. The

program also tries to define a collective experience through group research and seminars, exploring the role of law as a vehicle of social change.

MIT sophomore Mark Abkowitz is concerned with the inefficiencies of the MBTA and he is spending the summer trying to find out how the system can be improved.

Mark, who is studying transportation problems in civil engineering, is working with Massachusetts Representative Jim Smith of Lynn, exploring a variety of proposals that could lead to more efficient operation of the MBTA. In August he intends to submit a report to Governor Sargent outlining his suggestions. If necessary, he will introduce legislation in the General Court himself this fall.

Neil Cohen, a sophomore in urban studies and planning, is working through ULSP helping to

set up the newly authorized Boston Housing Court. He and Wellesley sophomore Marilyn Dorn are conquering practical problems such as finding a courtroom, pressing the City Council for a budget and organizing an advisory group for the court.

"We're starting from scratch," Neil says, "and we have the opportunity to put it together right from the beginning."

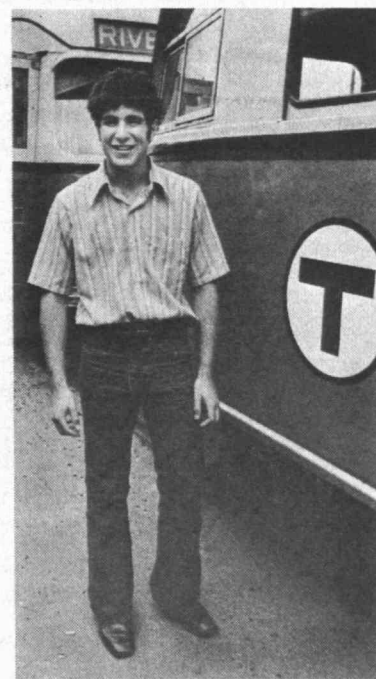
The court was created by the state legislature in the fall of 1971 and is funded by the City of Boston. Although it was scheduled to open July 17, organizational problems have delayed the opening for a few weeks.

The housing court is one of only five similar courts in the country and will have broad jurisdiction over all housing in Boston. The court's primary concern will be landlord-tenant disputes but the enabling legislation could be interpreted to give it jurisdiction over such projects as the controversial Park Plaza proposal, Neil believes.

Neil worked last summer with the Massachusetts Law Reform Institute. He and five others were sponsored in law-related jobs by the MIT President's Funds for Community Affairs, which resulted in the establishment of the Urban Legal Services Program.

Joseph Hadzima, a junior in urban studies and planning, believes that the process for handling juvenile offenders in this country is a failure. He is continuing an on-going project with the Department of Youth Services, evaluating their present pre-trial diversion procedures and hopes to implement an alternative program for identifying troubled juveniles and placing them in community based centers, such as halfway houses and foster homes, with access to educational and job opportunities.

The Department of Youth Services is charged with the task of



Mark Abkowitz stands by an MBTA trolley car which he believes is one of the obstacles to better MBTA service. Some of the trolley cars—though not this one—now in service were purchased in 1912. —Photos by Margo Foote

handling juveniles declared "delinquent" by the courts. Over the past several years, the traditional institutions for juveniles have been closing down in favor of community based homes. Joe is investigating the problems which have arisen from the speed of this change and the problem of establishing a successful relationship between the juvenile and the community.

Specifically he is analyzing the existing ways in which a youth enters the criminal justice system, from police contact to community placement. Later he will develop recommendations and designs for an improved referral system for juveniles.

The three students who put ULSP together are Scott Hebert, Neil Cohen and Gerald Croan. According to Scott, they began

with the realization that law is one way of instituting social change. Their program is a practical answer to what they see as some deficiencies in academic education and counseling for students interested in a law career.

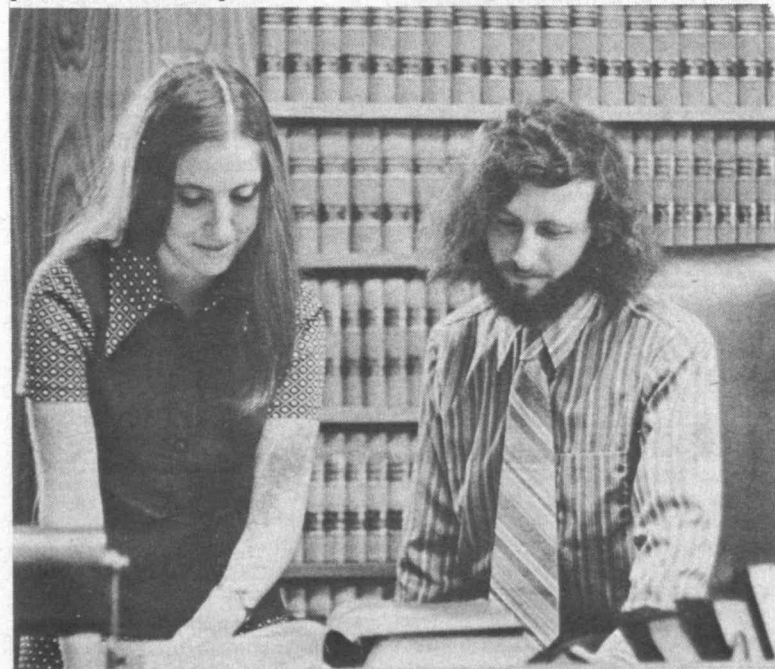
Although most of the students involved in ULSP plan to go on to law school, some did not realize the full scope of what lawyers can be involved in. Some students came into the program with what Scott calls the "Perry Mason syndrome," or a limited outlook of what is law-related. Their ULSP experience has increased their awareness of the broad range of roles the lawyer plays.

Periodic group meetings, where students trade feelings and observations about their placements, focus on defining what exactly is law-related and the variety of roles lawyers and other professionals assume in social change. The program organizers hope that the ULSP experience will help the participants integrate their academic and community experience.

A one-week general orientation to issues in law and social change opened the program before students began their jobs. This session provided an introduction both to the issues in using law to accomplish social change and to the specific areas of student placement.

Students are working in the areas of environmental law, communications, health, housing and criminal justice with 17 governmental community agencies.

Organizational support for the summer placements last year and this year is provided by supervisors in each agency and at MIT, as well as by the group meetings or seminars. MIT supervisors for ULSP are Professor Michael Baram of Civil Engineering and Instructors Leonard and Suzann Buckle of Urban Studies.



Marilyn Dorn and Neil Cohen pose at the bench in the newly created Boston Housing Courtroom. They helped to find the courtroom for the Housing Court they are working to set up. The court is scheduled to open in a few weeks. —Photos by Margo Foote

CLASSIFIED ADS

For Sale, Etc.

Zenith 16" port TV, \$35; alum fold bed w/matt, \$20; snow sled, \$5; dishes; avail 8/5. David, X4710.

Amana air cond, 5000 BTU, yr old, hardly used, 5-yr warr, \$120 or best. X260 Draper 7.

Nikon F, exc cond, w/lens: 50mm f1.4, 135mm f3.5 & P.C. lens, 35mm f2.8, each w/leather case, Seconic lgt meter & Accura flash, other accry, \$350 for everything. Call 876-2280 after 6pm.

Maple trees, 1-3' tall, 50 cents per ft; aspen, 2-5' tall, \$1-\$5 ea, dig yourself. Erica, X2728.

Upr piano, now at Westgate, \$100 or best. Gene, X4186.

Sofa & arm chr, \$60; dbl bed, matt & box spr, \$45; dresser w/mirror, \$30; crib w/matt, \$35, etc. Hong, X3703.

Hotpt convert/port dishwash, used 7 mos, w/ deliver, \$175. X6245.

DR tbl, \$10; 4 chrs, \$10; bureau, \$10; elec sweeper, \$3; toaster, \$3; 2 sgl matts, \$15; crib & matt, \$10; bkcase, \$8; painting, \$15; stroller, \$5. Vagn, X4710.

Dbl bed, night tbl, chest of drws w/mirror, \$75; wd DR tbl w/glass cover, 6 wd chrs, \$70; lamp, \$5; GE port b/w TV, 12", 10 mos old, \$55. Canel, X6732.

Caloric 4-brnr gas stove w/ht unit, exc cond, \$85; old Frigidaire, gd cond, \$30. X7194 Linc.

New twin bed, unused, \$65; gd used twin, \$35; 4' wal dresser, \$10; sturdy wood workstand w/shelves, \$10; cap-tains chr, \$12. Rhoda, X7679.

GE mod 200 stereo, gd cond, asking \$20; 15-20 ft of grn bambo like wall covering or rm divider, 7' high in 4 secs, \$10; GE 2 slice toaster, \$3; baker/broiler, \$8; 2 burner hot plate, \$6. Julia, X5763.

Port elec sewing mach, \$20; crib w/matt, \$20; wood playpen, w/pad, \$6; tractor tricycle, \$5; Tonka Mighty car carrier, \$10; 2 camel seats, \$10 ea; 1 leather hassock, \$5. Ingrid, X4393.

Sofa bed, \$75; K cab, \$35; 19" TV, b/w, UHF, \$75; all as new. Webster, X1735.

Layfayette stereo rec, 20 watts/channel, exc shape, no cover, \$60. Wayne, X7561 Linc.

Hide-a-bed sofa, \$55; dbl bed, \$40; DR tbl w/6 chrs, \$55; chest & mirror, \$25; TV, b/w, \$20; crib w/matt, \$25; vac cleaner, \$10; toaster, iron, lamps, carriage, etc. Jacob, X5058.

Fisher EPS speaker system in wal, perf cond, \$65 for pair. Michael, X7622 Linc.

Seconic view meter, mod L206, \$30 or best. Lee, X5153.

Schwinn man's 10 spd bike, 27", w/wire baskets, lock & chain, \$50. Paul, X5735.

Silver/nickel Bundy flute, new pads, \$85; dacron sleeping bag, \$20. Pat, X9203 after 5pm.

Bed, easy chrs, tbls, dishes, records, books, etc. Michael Kearns, X5665.

Raleigh Record, man's 10 spd bike, 2 mos old, \$75. X4158.

Frigidaire 6000 BTU air cond, \$75. Judy, X6276.

Westhse 21" TV, b/w w/stand, recently overhauled, new tube, \$50. Alice Cundin, X7461 Linc.

Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full name and extension. Only Institute extensions may be listed. Members of the community who have no extensions may submit ads by coming in person to the Tech Talk office, Room 5-111, and presenting Institute identification. Ads may be telephoned to Ext. 3270 or mailed to Room 5-105. The deadline is noon Friday.

Metal barrels, 15dx20h, reusable, gd for mov or stor of breakables, seal air & water tight, some hair-type pkg material, \$5 ea. John, X315 Draper 7.

Antique copper kettle, c 1810 w/rare opaline glass handle, made in Edinburgh. X1961.

Westhse port dishwasher, \$25. Steinmetz, X7618 Linc.

Aquarium, 20 gal, long, yr old, no leaks, \$10. Chuck, X7902.

Hitachi port b/w TV, 12", 14 mos old, VHF/UHF, avail now, \$45. Call 625-4001.

Gerry Fireside 3-man tent, 4½ lbs, almost new, was \$95, will take \$70 or best. Sandy, X7787 lv message.

Rug, 9x10, \$10; rug, 4x6, \$3; elec heater, \$12; sofa, \$5; end tbl, \$2. Bob, X7539.

Old fashioned high backed chrs, 2, grn velvet back, best. Judy, X5763.

Rug, 10x12, \$50. Dorm X0170.

White sewing maching, port, old but runs well, \$20. X4070.

Evinrude, 2 hp outbd, used 2 hrs, \$160 new, \$70. Richard Chick, X7668 Linc.

Moving, must sell, Philco Refrig, exc cond, \$65; 8 pc DR set, old but gd, \$65; folding bed, \$10; pink melmac dishes, serves 8, \$5; tbl ware, 34 bricks. Sellmyre, X6918.

Model amp in exc cond, stereo spkrs, orig value \$360, asking \$160, incl new cover. X3423.

Tires, 6.00x13, 25K, gd cond, 4 for \$15. Reasenberg, X6389.

Orange shag rug, 9x12, \$40. Carol Bloomberg, X2669.

Delta tires, 5, A78x13, wht wall, 500mi, 2 snows, Louis Reich, X381 Draper 7.

Layette, \$9; sm basket crib, \$5; lg baby carriage, \$12; fold feed tbl, \$12; collapsable stroller, \$14; GE elec clothes dryer, \$80; crib, matt, bumpers, \$20; playpen, \$8. Tony, X5780

Vehicles

'59 Mercedes 219, 6 cyl, auto stick, runs well, little rust, \$375. Peter, X7212 Linc.

'63 Chevy Impala, \$60. Isik, 354-7621.

'63 Mercury convert, 260 cu in V-8, exc cond, new paint, valves, timing chain & gears, all systems go. Fred, X2442.

'63 Peugeot 403 sedan, Michilan tires, sun roof, \$125. Steve, X7920.

'63 Rambler wgn. X6811.

'65 VW sedan, gd cond, \$500 firm. Beverly Morneau, X7101.

'66 BMW 1800TI, 4 dr, 51 K, radial, rebt eng at 43K, about \$900; '68 Yamaha 305, 7K, w/2 helmets & leather jacket, about \$325. Dorm X0109.

'66 TR 4A, gd cond, runs well, AM, luggage rack, \$700 or best. Joe Kelber, X5352 or X7328 Linc.

'66 VW bug, gd cond, 4 gd tires & 2 studded snows, bike rack, \$500 firm. Ginger, X216 Draper 7.

'67 Fiat 850, convert, 46K, eng exc, new tires, batt, \$600. Paul, X575 Draper 7.

'67 Toyota Corona, 4 dr, 55K, gd cond, new clutch & muffler, \$700; Hotpt auto dish, used 7 mos, \$100. Louz, X6894.

'68 Renault 10, 48K orig, 4 cyl, std, exc cond, must sell immed, \$150, w/ negotiate. Shirley, X7602.

'68 VW fastbk, wht, 50K, exc body & mech cond, AM/FM/SW, new tires, \$1500. Eric, X6614.

'69 Buick Skylark, 30K, very gd cond, best. X3231.

'69 Malabu, 2 dr, 42K, \$1400 or best, see it. Jeff, X4093 after 4pm.

'69 MG Midget, low mile, needs paint. Jerry, X5765.

'69 Peugeot 404, 4 dr, auto, AM/FM, v gd cond, \$1400 or best; chest of drws, rugs, child's desk, d'ette set, misc. Carlos, X5520.

'69 Plymouth sta wgn, 36K, V-8, auto, warr, 4 new tires, 2 new snows, \$1400. Holmes, X5764.

'69 Simca, wht, 3 dr, R&H, 39K, gd shape, asking \$600. Samy, X6050.

'69 Toyota Corona, hd top, 20K, gd cond, best. X4936.

'69 VW sunrf, auto, exc cond, too sm for fam of 4, \$1150 or best. Joe, X2768.

'70 Regent Envoy mobile home, 12x60', lk new, ideal lake home, must sell, reas. Pat, X613 Linc.

'70 Volvo, 142-S, 9K, exc cond, extras, must sell by 8/15, \$2200 or best. Ricardo, X3715.

'70 Volvo, 4 dr sedan, 25K, exc cond, std, \$2200. C. Therrien, X7262.

'72 Toyota Corolla 1600, 2 dr, AM, warr, \$1900 or best. Mark, X7114.

'69 BMW R69S cycle, touring eqped, \$1600; Bridgestone 350, \$495 or best; complt aquarium, \$45; 2 dressers, sm desk, \$15 ea; AM/FM/cassett recdrer, \$40. X7688.

'71 BMW R75/5 cycle, 12K, Avon fairing, new tires, exc cond, many extras, \$1750. X518 Draper 7.

'71 Honda CL450cc, blue w/lugg rack & chain, exc cond, \$800. X5597 Linc.

'71 Honda model 175, 1800 mi, like new cond, \$475. Tom Emberley, X559 Draper 7.

'71 Yamaha, 350cc, 2K, gd cond. Kathy, X4718.

Trail-a-Bike, bolts to trlr hitch to tow behind car, like new, \$25. Van Olinger, X2420 lv message.

Housing

Allston, 4 BR apt, nr T, avail Aug 1, \$300. Mike, X6429.

Camb, Inman Sq, mod 2 BR apt, air cond, w/w carpet, dish & disp, 88 Beacon St, MIT affiliation, avail sublet w/Sept opt, \$250/mo + pking. John, X412 Draper 7.

Camb nr MIT, lg, 1 BR apt, recently remodeled, avail 9/1, \$200. X4176.

Camb, stu apt avail 8/1, on Broadway between Harv & Cent Sq, \$105/mo. Alex, X209 Linc.

Camb, 3 min to Harv Sq, comp furn, own BR to share w/2 fems, reas fee. Miss Smith, X4861.

Camb sublet for Aug, huge 5 BR, furn apt, 2 B, 5 min to Harv Sq, \$350/mo. Don, X2480.

Camb-Som line, 88 Beacon, mod 2 BR, w/w, dish & disp, air cond, avail Aug, will negotiate rent, w/opt. Gene, X5230.

Chelsea, Prattville-Wdlawn sec, 2 apts: 4-rms, 2nd flr, no pets, \$190/mo; 1st flr, \$195/mo incl ht. Tony, X5467 Linc.

Lex, split level, 4 BR, 2½ B, LR, DR, family K, fam R, study, 2 car gar, oil ht, 1 acre, many trees, mid 50's. X1846.

Som, 50 Craigie St, 2 BR apt, w/w carpet, dish & disp, air cond, avail 8/8. Herb Wang, X6394.

Watertown, 2 BR apt, 3rd flr, dish & disp, self clean oven, tiled B, pking, nr T, \$225/mo, incl all util, avail now. X3757.

Lake Winn, NH, water front cot, all mod conveniences, avail 9/9-9/30, \$125/wk. X5365 Linc.

Animals

AKC min schnauzer pups, well mannered, non-shedding, pet show prospect. Hank, X326 Linc.

Seal point Siamese kittens, free to gd homes. Susie or Len, X1788.

Shepherd-collie puppies, 8 wks, 1 m, 2 f, \$10. Ann, X6986.

Free: furry purr machines, 7-wk-old kittens, weird markings. Kathy, X5831.

Adorable m kittens, 2, free to gd home: 1 dbl pawed, bobtailed tabby & 1 smoky gray, ghost striped. John Yates, X2843.

Springer spaniel pups, AKC reg, champ sired, raised w/child, \$100. Harney, X366 Linc.

Lost and Found

Lost: gold hoop earring, 1½" diam, for pierced ear, main corridor on 7/19 at noontime, reward. Laura, X5654.

Wanted

Hse in Camb or nearby area for at least 1 yr, for 2 responsible hse-sitters, avail now. Gayle, 666-9531.

Refrig w/freezing compartment. Becky Livengood, X5153.

Tankless ht water heater to fit oil furn, 3-5 gal cap, 14" on center. L. Andexler, X4215.

Photo enlarger w/35mm lens to rent or borrow when not in use. Vicki, X1866.

Std sz refrig for dorm. Judy, X2102 days, X2843 evgs or Cyndy, Dorm X0936 evgs.

Home for visit assoc prof, 2 children, 10/1-12/31. X2210.

Help re-habing a South End hse, some carpentry useful. Dave, X6375.

Right handed, native spkrs of English for psych exper, \$1.60/hr. Larry, X1960 or Martin, X5743.

Super van, long wheelbase, any make, any yr. Richard Iredale, X2861 lv message.

Volunteers nded for arrival and orientation of new int'l students. Carlos, X5150.

Hand lawn mower in gd cond. Kirschling, X6252.

Mich X tires, 2 or 3, for Corvair, 7.00x13. Bill, X3223.

Furn hse for Swedish MD & fam for 1-2 mos, pef 9/1-10/15. X5518:Linc.

Daily ride from Natick/Fram to Lincoln Lab, for 3-4 mos only, will pay. Loraine, X7764 Linc.

Fem rmmate for comp furn apt, nr Harv Sq & T, pking avail, \$65/mo incl util. Luzmaria, X5048.

Fem rmmate to share spac, furn, 2nd flr hse apt, off Harv Sq, LR, DR, frpls, K, own BR, \$150 ea, incl pking, utils, avail 9/1. Joan, X5268.

Miscellaneous

Typg by grad student wife, exper, includ tech typ. Mark, X1978.

Two MIT sts looking for work installing shelves, cabs, partitions, free estimate. Phil Sikes, 266-4796.

Exper typist will do thesis & term paper typing. Dulcy, X4112

Professional wl sand & refin wd floors. Denny, X5606.

Hse painting, inter & exter, free estimates avail. Paul Clift, X3785.

Wl do gen typing on SCM elec. Ron, X7273.

Positions Available

The Office of Personnel Relations each week lists a sample of the available opportunities at the Institute. Interested employees are encouraged to call the appropriate extensions for further information about these or other current jobs.

Senior Secretary V to Director of new expanding research center at MIT. Initiative, strong secretarial experience necessary to work flexibly with a growing staff, to maintain active calendars of meetings and visitors and to help set up files, accounts, and records on several new projects. Shorthand, accounting experience preferred; organizational abilities important to set priorities and make decisions.

Senior Secretary V for Director and staff member of a computer center. Requires initiative to work with numerous organizations inside and outside MIT, and to carry on independent projects and investigations. Maintain full calendar of appointments, receive visitors, answer routine correspondence, organize complex files. Candidate must have superior typing skills.

Administrative Assistant V to work independently in an office coordinating varied and extensive volunteer efforts of faculty wives and alumni within the MIT community. Maturity and tact a must; organizational ability, flexibility to work with many different people, extensive knowledge of the Institute and good office skills are required. Position available after August 1, 1972.

Senior Secretary V to Executive Officer in education-oriented research group. Prepare proposal and report texts; coordinate administrative procedures; perform some reference research for data collection; arrange meetings; route and reply to correspondence; assist in budget preparation; handle various confidential files. Ability to organize; previous experience important. Good typing, and shorthand preferred.

Secretary IV to researcher in newly-funded medical research project. One secretary-one supervisor situation requires an experienced secretary to set up patient appointments, research medical topics in library, prepare medical and technical manuscripts, make and paste graphs. Unique opportunity for a skilled secretary.

Secretary IV in busy academic office for head of section in humanities area. Coordinate class material; make preliminary arrangements for concerts. Knowledge of MIT accounting systems particularly important; shorthand preferred. Position available after August 14, 1972.

Secretary-Receptionist III in an executive office offers unusually good opportunity for a Grade II or Grade III employee with good, accurate typing skills; outgoing manner to deal with people in person and on the telephone; tact, discretion, alertness and common sense. Ability to work with details of mail, filing, etc. Some shorthand preferred, although not required.

Biweekly, Ext. 4251

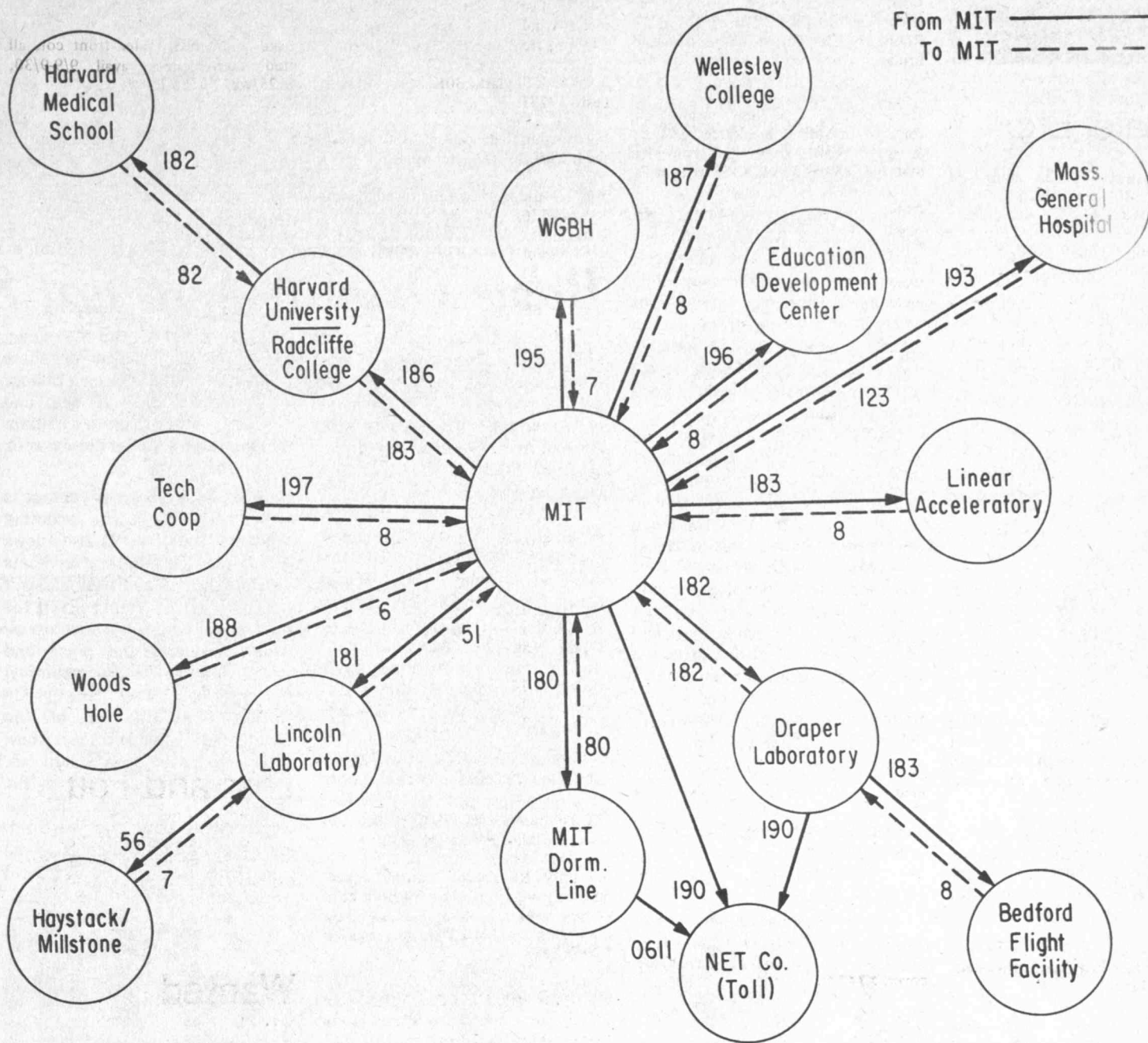


- Diagram by Chris Kirchberg

Map of New Access Codes for Centrex

MIT Direct Tie-Lines

From MIT →
To MIT - - -



New access codes, or tie lines, will go into effect with the conversion to Centrex on August 12.

Tie lines have been in use for many years, but from time to time, the digits change. The most notable example in the change-over to Centrex will be that it will be necessary to dial an access code to all Draper Lab extensions. Callers will have to dial 182 plus a five-digit extension to reach people at Draper.

There will also be a new tie line to Massachusetts General Hospital.

Present tie lines may be found on the back page of the Institute telephone directory. Callers are urged to use tie lines to cut down on the number of message units charged to the Institute.

Tech Talk readers are urged to take notice of telephone numbers listed in the ads. The number of the extension is listed first, followed by the location if the location requires an access code.

Persons who advertise likewise are urged to remember to include their locations if off campus. Failure to indicate extensions at Lincoln or Educational Development Corporation for example, usually results in a flurry of calls to the Tech Talk office. This causes frustration for both the advertiser and the Tech Talk staff.

MIT's Brailemboss Aids IRS

The Internal Revenue Service has started using a high-speed braille printer, developed at MIT's Sensory Aids Evaluation and Development Center (SAEDC), to help blind taxpayer service representatives work on an equal basis with sighted representatives.

Taxpayer service representatives (TSRs) answer telephone queries from taxpayers. Until recently, income tax records were kept on file in a central location for a geographic area, and a TSR who needed information could call the central location and have a person read the information over the phone.

However, the IRS is now in the middle of a tremendous change-over from a file system with written documents to one that is organized on computer tapes. Eventually, every TSR in the country will be able to obtain computer printouts of tax records simply by requesting the information through office computer terminals, which will be permanently connected by telephone lines to the regional computer. A sighted TSR can either see the information on a television screen, or request that the computer print out a hard copy of this information.

Under this new system, the

braille machine developed at MIT allows the blind TSR to obtain the information without depending upon a sighted person to read it to him. Called the MIT-BRAILLEMBOSS, the machine can use the same signals carried by telephone lines to a normal teletypewriter and, instead of inkprint, emboss the raised dots that allow a blind person to read with his fingertips.

At the Little Rock, Arkansas office of the IRS, Mr. Jack McSpadden is a blind TSR who is now using the MIT-BRAILLEMBOSS on an experimental basis. Mr. McSpadden graduated as a TSR in 1967 from a special school conducted by Arkansas Enterprises for the Blind, which is supported primarily by the Lions Clubs of Arkansas.

The IRS Computer Center that serves Little Rock is located in Austin, Texas. When a taxpayer calls on Mr. McSpadden for help, Mr. McSpadden can request any information he needs from the computer in Austin. As he punches a button requesting a hard copy of the information, the material is embossed by the MIT-BRAILLEMBOSS, and McSpadden can read the braille inscriptions and answer virtually any question the enquiring taxpayer might have the same way a sighted TSR would.

There are 48 IRS regional offices

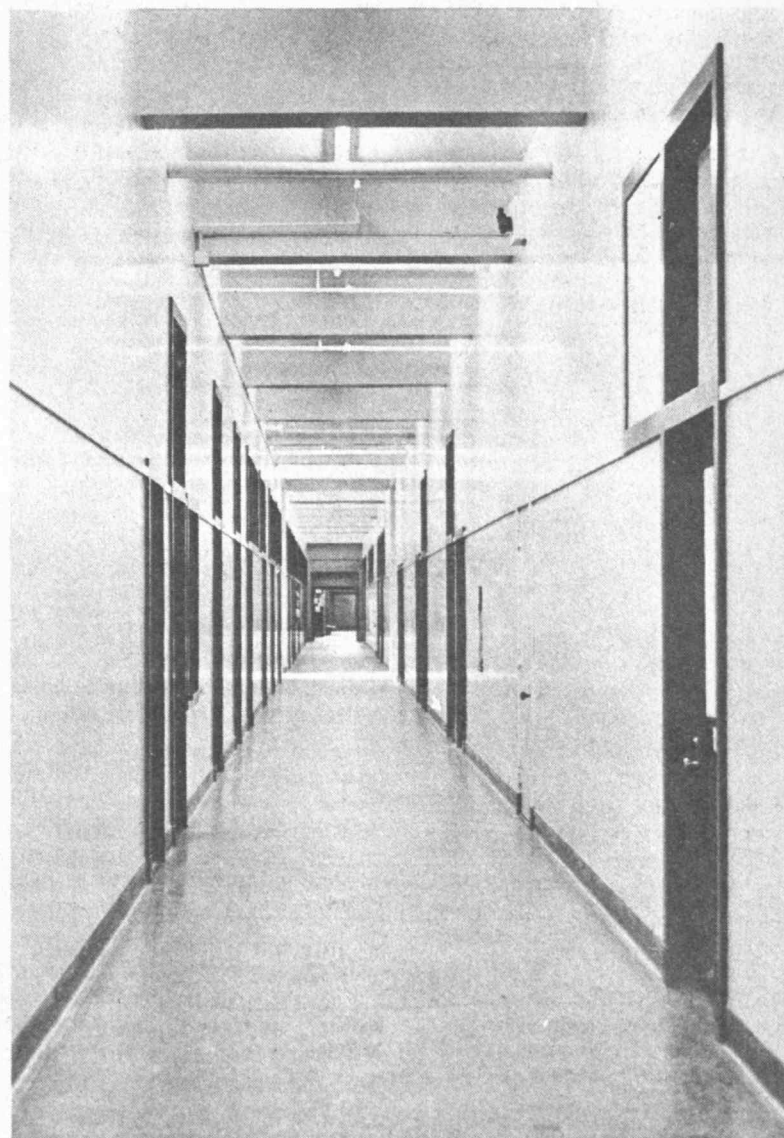
now employing blind taxpayer service representatives. The MIT-BRAILLEMBOSS may soon be used in many of those offices.

Meditation Meeting Set

An introductory lecture on transcendental meditation (TM) will be given this Friday, July 28, at 8pm in Room 4-231.

The lecture, sponsored by the MIT chapter of Students International Meditation Society, will cover the basic precepts of TM and its relationship to the Science of Creative Intelligence. The lecture is open to the public free of charge.

Transcendental meditation and the Science of Creative Intelligence recently were studied at the fifth International Symposium on the Science of Creative Intelligence, held in Kresge Auditorium July 14-19. The symposium featured Maharishi Mahesh Yogi, the leading exponent of TM, as well as speakers from throughout the world, including Professor Daniel Lerner of political science and Dr. David Perlmutter of foreign literature. More than a thousand people attended the five-day session.



Summertime and the livin' is quiet—at least along this corridor.

-Photo by Margo Foote

MIT Group Studies Paint Lead Content

As a service to the Greater Boston community, researchers at MIT's Electron Optics Laboratory are devoting their skills, evenings, and weekends to analyzing paint chips to determine the lead content of paint.

When lead-base paint is ingested it causes plumbism, a disease that has reached epidemic proportions in some communities. The primary victims are children, who pick up and eat little pieces of chipped paint, or chew on toys or furniture coated with lead-base paint.

In ghetto communities, where chipping paint and hungry 2-5 year old children are common, the incidence of plumbism is high. Whether for oral gratification or just because lead tastes sweet, children can ingest enough lead to kill them or handicap them seriously.

About 200 children in the US die of lead poisoning each year, while 12,000 to 16,000 are treated and survive. Public health officials have estimated that undetected cases of lead poisoning may involve as many as 400,000 children each year.

"However," says Jay Herman, technician in the Electron Optics Laboratory, "this is not just a ghetto problem. Lead is commonly used in paints to produce good color permanence and make the paint wear well. Many people would be surprised to know just how much paint in their homes does contain lead and is a potential hazard."

Two years ago, with the aid of a solid-state x-ray detector on loan from Ortec, Incorporated, Oak Ridge, Tennessee, Professor Robert E. Ogilvie, head of the Electron Optics Laboratory in the Department of Metallurgy and Materials Science, began offering free paint analysis to hospitals in the Boston area. Most of the paint for analysis was sent to Professor Ogilvie by the Poison Center at the Children's Hospital in Boston.

The testing procedure is quick and simple. The paint chip is bombarded with x-rays that excite atoms of lead and cause them to emit their own, characteristic x-rays. These secondary x-rays are detected and fed to a computer as

an electronic signal. The computer then indicates the presence of lead in the sample.

Mr. Herman is testing paint samples this year while Professor Ogilvie is on sabbatical leave. "Most samples we test," he says, "have some level of lead. Lead used in paint is of sufficient quantity to be detected easily, but lead signals have been found in paint without lead. This was quite a problem until it was discovered that exhaust emission and other air pollutants contribute a noticeable lead level in dust."

In order to test the paint, Mr. Herman needs a chip about one inch square. If, on children's furniture, for example, no peeling is taking place, he recommends cutting off a chip from a spot where it would not be noticed, removing the paint down to the wood, or slicing off a piece of wood with the paint.

So far, Electron Optics Laboratory workers have performed over 100 tests for individuals and organizations. "We would like to see community groups organize in their own neighborhoods to collect samples of peeling paint," says Mr. Herman, "separate them into plastic bags, so they do not contaminate each other, and send them with self-addressed envelopes."

All we can do is tell people that they have a problem with lead in their paint. It then becomes their responsibility to do something about it."

Samples for testing should be sent to: Mr. Jay Herman, MIT, 77 Massachusetts Avenue, Building 13-4022, Cambridge, Massachusetts 02139.



During a restaurant simulation, BASIS students practice ordering a meal.

Basis Orients Foreign Students

Nearly 80 foreign students who will enter area colleges and universities in September are getting acquainted with the ways of American life through the Boston Area Seminar for International Students (BASIS) now being held at the Institute.

BASIS provides language, cultural, social and academic orientation for foreign students who are coming to the United States for the first time. Incoming students may choose a six-week, three-week or five-day program, depending on the amount of introduction they feel they need.

The six-week students are now in residence at East Campus and attending classes in Buildings 1 and 14. Students enrolled in the shorter programs will arrive in August. All three sections are scheduled to close August 30.

The professional staff of BASIS is composed largely of teachers of

English as a Second Language (ESL), but "resident graduate students are available on a 24-hour basis for all kinds of help and advice," according to William Biddle, coordinator of the six-week program.

"This close personal contact is very reassuring to the incoming students," he says. "It also allows for spontaneous cultural contacts such as picnics and beer blasts."

In addition to formal classes, the students hear guest lecturers, attend concerts and plays and social gatherings. For example, one day last week, the group gathered at the top of the Prudential Center to discover how the metropolitan area is laid out. Later they took a cruise on the Charles for a much different perspective. Over the weekend, they spent a day frolicking in the Blue Hills followed by a typical American custom—the cook-out.

Several times during the orientation program the foreign students are exposed to what Mr. Biddle calls a "language confrontation." This consists of a simulation of some ordinary real life experience, like shopping for clothes.

In the simulation, the student will select a coat, for example, discover that it is too big or that the sleeves are too short. Then he must explain in English what the problem is to a deliberately none-too-sympathetic "salesclerk." These confrontations help to develop the students' feeling of self-confidence in conducting their daily affairs.

Another facet of the orientation is familiarizing the students with the public transportation system. A highlight near the end of the program is a day-long scavenger hunt on the MBTA. In addition, each student spends an extended weekend with a family in rural New England.

BASIS' activities begin long before the students arrive and their effects are felt long after the students are enrolled in their respective colleges. For each incoming student, the BASIS staff tries to find a "welcoming student" enrolled in the same study at the college. Sometime during the foreign student's stay during BASIS, he meets his "welcoming student" who acquaints him with what he can expect at the college, and helps him once he reaches there.

BASIS was originally funded by a grant from the Ford Foundation and continued through scholarships from the Institute of International Education and other organizations, although some students pay their own way. Now in its tenth season, BASIS has been housed at MIT for the past several years.



Campus Patrolman Raphael Gallerani befriends a squirrel along his campus rounds.

—Photos by Margo Foote

Examination Notice

Applications for postponed final examinations and for advanced standing examinations are due Monday, August 14, in the Schedules Office, Room E19-338.

A Walk for Little Fingers

Kids' Yellow Pages a Big Seller for MIT Press

The following is a reprint of an article which appeared in the Boston Globe, Monday, July 24.

By Muriel L. Cohen
Globe Staff

It was bound to happen. In our child-centered culture, someone was sure to come up with the kids' own phone book.

The MIT Press, usually pre-occupied with esoteric academic texts has hit the jackpot with a slim replica of the Yellow Pages directory, designed to let children's fingers "do the walking."

Bound in the slick, bitter yellow of the familiar classified telephone book, MIT's version catalogues

the excitement of the city as a supplement to schoolhouse education.

In the three weeks since "Yellow Pages of Learning Resources" slid into the market without any fancy pre-publication hoopla, 45,000 copies have been sold, a phenomenal sales record for a university-based publisher, according to the MIT Press's Michael Connolly.

The volume came off the drawing board of a Philadelphia architect concerned with graphics and the visual impact of learning materials.

So author Richard S. Wurman has chosen the handy format of the Yellow Pages to package for

children, in alphabetical order, the answers to questions with "What can you learn from an ACCOUNTANT?" through "What can you learn at a ZOO?"

In the 94-page paperback, about the size of a suburban telephone book, Wurman directs his young readers to the variety of people and institutions that together make a city.

Wurman suggests that kids can learn "just standing on the corner."

According to the MIT Yellow Pages, a corner is not only an intersection of streets and sidewalks, but it also can be a place for street vendors, panhandlers, news dealers, "leafletters" and subway

exits and entrances.

There's one section entitled "What can you learn from a CHILD?" that opens with the line, "Being a child is not easy, you know," and concludes, "I'm really pretty wonderful."

Pretty thick stuff, that, but it's a proper part of a book that will appeal to young readers and their parents who can use it as an informal suggestion book when children whine, "I have nothing to do."

Wurman also covers union bosses, city hall, newspaper plants and architects in a flip, catchy prose style.

Wurman introduces the book by calling it "a handshake with a

city." He offers it as a "welcome mat to the endless possibilities for learning all around you."

In that context the handbook is a timely supplement to the increasing number of courses being taught children in all grades by on-site instruction.

As such it's an addition to the growing collection of "relevant" learning material that educators are using to introduce children to the "real world."

For the kids, it probably will become as useful and as necessary as their parents find the real Yellow Pages that are their contact with some of the real problems, like finding a plumber or a lawyer.