



George Lechter and his winning 'water waiter.'

—Photo by Margo Foote

ENGINEERING AND FUN

Top Cup in 'Great Water Waiter Race'

George Lechter, 18, a mechanical engineering sophomore from Cali, Colombia, reigns this week as the top "water waiter" builder among 50 students in a design course at the Institute.

His toy-like vehicle—fashioned from a package of odds and ends handed out to each class member by their professors—moved a tumbler of water over an eight-foot course in 2.495 seconds without spilling a drop.

That was the fastest time for the class and made Lechter, son of a Cali heart surgeon, the winner of what the class called "The Great Water Waiter

Race."

Purpose of the course—called "Engineering Synthesis and Design"—is to encourage student innovation and ingenuity in the solution of engineering problems using minimum materials. A year ago students in the course were challenged to build toy-like vehicles powered only by the energy stored in a cocked mousetrap.

This year, the teachers—Professors David G. Wilson, Igor Paul, Woodie C. Flowers and Stephen P. Loutrel—made up identical bags of odds and

(Continued on page 6)

Natalie Nicholson to Direct Libraries

Natalie Nicholson, whose experience with the administration of academic and research libraries has spanned more than thirty years, has been appointed the Director of the MIT Libraries, effective March 1, 1973.

Miss Nicholson has been Associate Director of the MIT Libraries since 1958 and Acting Director since last July when Professor William N. Locke retired as Director of Libraries.

Announcement of the appointment was made by Walter A. Rosenblith, Provost. "In her capacity as Acting Director Miss Nicholson was an obvious candidate throughout the search. The advisory committee became convinced that we need not look beyond MIT's own ranks," Professor Rosenblith said. "It is particularly gratifying to me to announce this appointment."

Professor Rosenblith also announced that the James M. Barker Engineering Library will begin to be re-incorporated into the central MIT library system. The engineering libraries have been operating under the administration of Project Intrex with Professor Carl F. J. Overhage as Director, since February, 1966.

During this period the Barker Library has served as the environment for user studies with the Intrex computer-based information system.

The re-incorporation of the engineering libraries into the MIT library system, which was strongly recommended by the Ad Hoc Committee on the MIT Library System and the Library Visiting Committee, coincides with the successful conclusion of these important experiments. Many innovative library services were developed at the Barker Library during this period, including rapid acquisitions of material, user-oriented cataloging improvements, "library pathfinders," and the development of modern microform services.

"The experimental mode of the Barker Library under Intrex," Miss Nicholson said, "has made important contributions to library services at MIT and nationwide. Our expectation is that many of these services can be extended to other libraries at MIT."

Miss Nicholson said she hopes to develop new information services at MIT tailored to individual users in the various libraries through

applications of new technology.

The Library System of the Institute, encompassing some 1,500,000 books and periodicals and an operating budget in excess of \$3 million, plays a strategic role in underpinning improvements in the research and educational program of MIT. It includes the school and departmental libraries, reading rooms and document rooms associated with the interdepartmental laboratories and centers. In making this announcement the Provost also thanked the Ad Hoc Advisory Committee which during the past year had conducted an extensive search for new leadership of the MIT Libraries. Members of the Committee included Dean Robert A. Alberty of the School of Science, Professor Gene M. Brown of the Department of Biology, Professor Robert M. Fano of the Department of Electrical Engineering, Professor Eugene Goodheart of the Department of Humanities, and Professor Mary C. Potter of the Department of Urban Studies.

A native of Middletown, R.I., Miss Nicholson received the S.B. degree from Simmons College in

(Continued on page 2)

MIT Health Plan Scheduled to Start As Pilot Program

MIT is preparing to offer, on a pilot basis, a pre-paid comprehensive health care plan—to be known as the MIT Health Plan—to up to 1,000 faculty, staff and employees.

Laurence H. Bishoff, the assistant director for administration in the Medical Department, said that the department hopes to have the pilot program in operation by June 1.

"The intent is to run it for two to three years, and assuming sufficient interest, to expand our resources to accommodate everybody who wants to join," he said.

The 1,000 original members would represent about one-tenth of MIT's total faculty, staff and employees.

The only limits on eligibility now foreseen under the program would apply to persons over 65 or those living outside the plan's geographical limits, which are now being set.

The proposed plan is similar in operation to plans like the Harvard Community Health Plan, recently opened in Boston, and the Kaiser-Permanente Plan in California. The plans are often referred to as pre-paid group practice or health maintenance plans.

Participants in the program at MIT would choose the plan as an alternative to the present Blue Cross-Blue Shield Master Medical coverage.

The cost for the MIT Health Plan, which has not been finally established, is expected to be slightly higher than the cost for the present coverage.

"We hope to price it as close to the cost for Blue Cross coverage as possible," Bishoff said.

The plan, in effect, is an extension of the primary medical care services now offered to faculty, staff and employees through the Medical

(Continued on page 8)

Immunologist Eisen Named To Biology, Cancer Center

Dr. Herman N. Eisen, noted immunologist, has been appointed professor of immunology in the MIT Department of Biology and a senior researcher at MIT's newly formed Center for Cancer Research.

Announcement of the appointment was made jointly by Dr. Salvador E. Luria, director of the new MIT Cancer Research Center, and Dr. Boris Magasanik, head of the MIT Department of Biology.

In recent years MIT has become a leading center for research in molecular biology, particularly in genetics and the genetic changes that are brought about by virus invasion of cells.

The Center for Cancer Research, with initial grants of \$3.1 million from the National Cancer Institute and \$1.7 million from the Seelye G. Mudd Fund, will concentrate on basic biological research into the causes of cancer. Director of the Center, Dr. Luria, an Institute Professor and Sedgwick Professor of Biology at MIT, won the 1969 Nobel Prize in Medicine or Physiology for his research in virology.

Dr. Eisen is one of several noted scientists from throughout the world who are expected to head research groups within the new Center. Another is Dr. David Baltimore, American Cancer Society Professor of Microbiology at MIT. Others are yet to be selected.

Dr. Eisen, a native of Brooklyn, N.Y., received his A.B. (1939) and

M.D. (1943) degrees from New York University. Since 1961 he has been professor and head of the Department of Microbiology at Washington University School of Medicine in St. Louis, Missouri. Prior to 1961, he was professor of dermatology at Washington University, associate professor of industrial medicine at New York University, and research associate in immunochemistry at the Sloan-Kettering Institute. He has been a National Institutes of Health Fellow in the Departments of Medicine and Chemistry at New York University, and an assistant in the Department of Pathology at Columbia University College of Physicians and Surgeons.

Dr. Eisen serves on the editorial boards of *Biochemistry*, the *Journal of Immunology*, *Physiological Reviews*, *Proceedings of the Society of Experimental Biology and Medicine*, *Cellular Immunology*, and the *Proceedings of the National Academy of Science*.

He has served on many advisory groups, including the National Institutes of Health Study Section on Allergy and Immunology, the Commission on Immunization of the Armed Forces Epidemiological Board, and the World Health Organization Scientific Group in Regulation of Immune Response. He is currently a member of the Board of Scientific Counselors for the National Institute of Arthritis and Metabolic Diseases.

(Continued on page 8)

200 Rockets Ready For Launch Pad

Over 200 rockets will be launched during the sixth annual MIT Model Rocket Convention to be held March 30 to April 1.

More than 100 rocket enthusiasts from colleges and high schools in fifteen states, from as far away as Virginia, and Canada are expected to participate in the three-day convention.

The launching will be held from 9am to noon on Saturday, March

31, in a field next to Jesse White's Boats on Route 16 in Mendon (near Milford).

Several model rocket manufacturers also will demonstrate new products, including large rockets expected to reach an altitude of over one mile and rockets equipped with radio transmitters and movie cameras.

Saturday's launch will feature rockets ranging from six inches to five feet in length and up to a pound in weight. They all use inexpensive, commercially-made solid fuel rocket engines. More than 15 million model rockets have been launched since 1957 without accident or serious injury.

Convention Chairman Christopher Flanigan, a sophomore in aeronautics and astronautics from Fort Pierce, Florida, will speak at opening ceremonies at 7pm on Friday, March 30, in the MIT Student Center.

Convention participants will form small groups to discuss specialized technical subjects such as aerial photography from model rockets, internal ballistics of model rocket engines and scale modelling techniques.

Saturday's activities, following the launching, will include presentation of research papers and a banquet. James S. Barrowman, an engineer at the NASA Goddard Space Flight Center and president of the National Association of Rocketry, will discuss "Techniques of Research with Model Rockets" at the banquet, beginning at 7pm.

The convention will close with a speech on "Employment Prospects in the Aerospace Industry" at 11am Sunday. The speaker will be announced at a later date.

Admitted Lists To Be Available

The Admissions Office will issue a list of freshman admitted for next September to living groups and student activities to encourage contact with prospective students in their hometowns during April.

"We believe student-to-student contact is important during April," Peter H. Richardson, director of admissions, said, "when high school students are deciding which college to attend. While not all of the students offered admission will come to MIT, we want all of them to feel welcome."

Lists will be available in Room 3-108, at noon—Thursday (March 22). However, no contacts should be made before Monday (March 26), Richardson said.



Miss Nicholson

Nicholson To Head Libraries

(Continued from page 1)

1932. She later held a Carnegie Fellowship at the Rutgers University School of Library Science. Miss Nicholson began her library career as an assistant at the Kirstein Business Branch of the Boston Public Library. In 1937 she became librarian at the Harvard Graduate School of Engineering.

Miss Nicholson came to MIT in 1954 as reference librarian. In 1956 she was appointed executive assistant to the director of Libraries, and in 1958 became associate director.

She has undertaken numerous professional and consulting assignments for the Special Libraries Association and the American Libraries Association and has published extensively in professional journals.

Last May Miss Nicholson received the Alumni Achievement Award from the Simmons College School of Library Science.

Miss Nicholson lives in Cambridge.

Theory Enlightens Enigma of Quasars

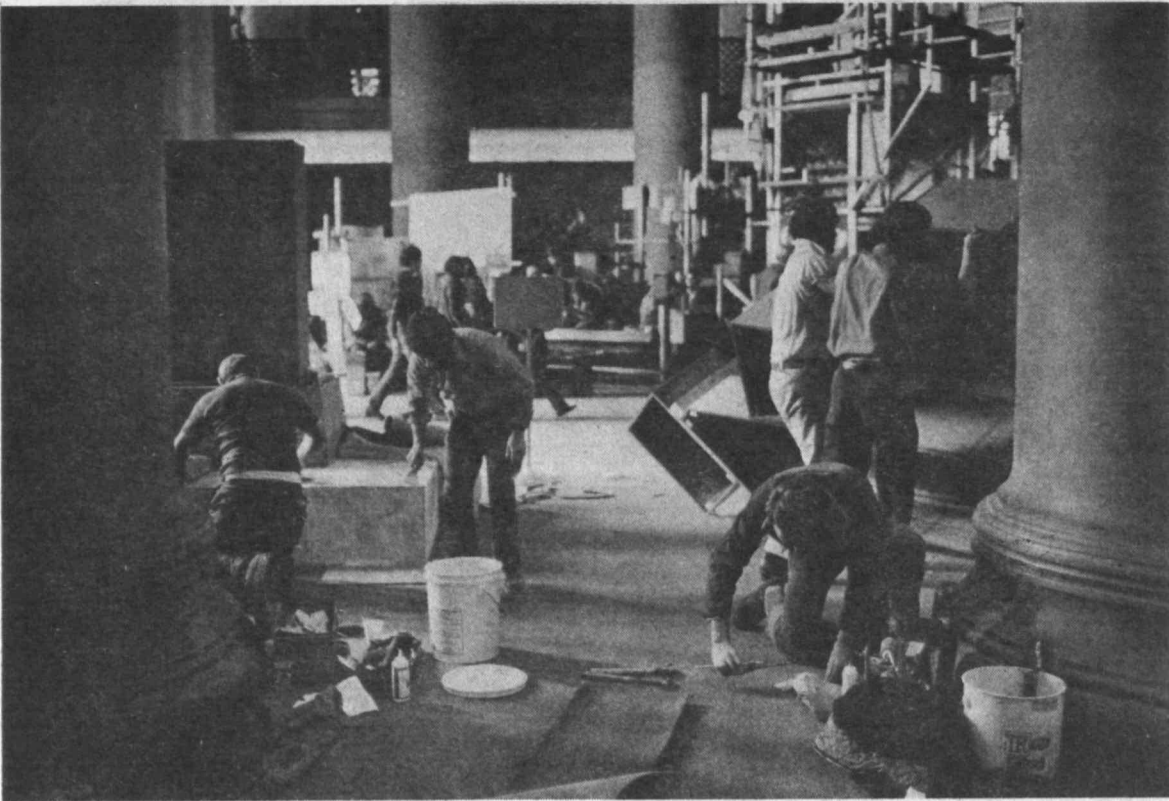
"In terms of its optical image, the famous, enigmatic quasar is an uninteresting, uninspiring, and commonplace object, looked at purely observationally.

"Only when you impute to it some theoretical nature do you then grasp what a remarkable object it is."

Thus writes Philip Morrison, professor of physics at MIT, in the current issue of *Physics Today* and he goes on to say that scientists are pretty confident that hundreds of thousands of these quasars exist in the universe.

In his article, "Resolving the Mystery of the Quasars," Dr. Morrison points out that the physical nature of quasars is essentially unknown. The only things that can be said for sure are that so far about 200 quasars have been observed, that we can't see any detail in their structure with optical telescopes, and that they appear to be moving very fast, he says.

Together with other more tentative information, the observations suggest to Dr. Morrison that quasars may prove to be highly con-



A new structure is rising in the Building 7 (or Rogers) Lobby as part of an on-going architectural experiment in the uses of the Lobby. When complete the new structure will house a map of the Institute and also a large-scale map of the Building 7 environs in addition to bulletin boards and some exhibit space. The existing structure on the other side of the Lobby

is scheduled to be dismantled in the near future. And, if you were wondering about the black curtain and screen—what Lobby coordinator Suzanne Weinberg calls "The Eclipse of the Lobby"—they are there for a multi-media show taking place this week, and will be used for similar shows in the future.

—Photo by Margo Foote

SCREENINGS AND DISCUSSION

'Movies' to Hear Critic, Filmmakers

Pauline Kael, film critic of *The New Yorker*, and Stan Brakhage, the experimental filmmaker, will present lectures at MIT this spring in the second half of a film course that combines discussion and screenings.

The course, titled "Movies: An Introduction," is presented by the film section of the Department of Architecture and taught by Richard Leacock, professor of architecture at MIT and a pioneer of cinema verite. This is the first year the course has presented a series of outside lecturers.

Professor Leacock said that anyone who is interested may enroll in the course free of charge, up to the limit of the 120-seat screening room. Lectures are presented on Wednesdays at 2pm, while screenings are given in the evenings the day before and the day of the lecture, Tuesdays and Wednesdays, at 7pm.

"In inviting people to lecture in the course, I tried to obtain a variety of opposing views of film," Professor Leacock said. "For example, I've had a standing friendly argument with Pauline Kael for years, so I called her up and asked if she wanted to help save my students from my views. She said of course she did. She is interested in what is theatrical in film and will be lecturing on comedy, that rare missing bird."

Miss Kael will give two lectures in the course on April 18 and 25. The screening the first week will be Max Ophuls' "The Earrings of

Madame De..." with Danielle Darrieux, Charles Boyer, and Vittorio de Sica. The second screening will be Preston Sturges' "The Lady Eve," with Barbara Stanwyck, Henry Fonda, and Charles Coburn.

Mr. Brakhage will give three lectures, on May 2, 9, and 16. The films to be screened during those weeks have yet to be arranged but will include some of Mr. Brakhage's own experimental work.

Spring Drive Nets 2,045 Pints of Blood

Thanks to last-minute walk-ins, the 1973 Spring Blood Drive came from behind, to net 2,045 pints of blood for the Red Cross.

Although the Institute failed to meet its 2,500-pint goal, the results were much better than expected in the drive which ended Friday, March 16.

Mike Kozinetz, student organizer, said, "By the end of the first week, things were looking pretty dismal—we had collected 1,135 pints and did not expect more than 500 donors the second week. But with a sudden surge of walk-ins, we netted 910 pints the last week."

A massive work force of some 1,000 persons was responsible for the Spring Blood Drive. Volunteer solicitors canvassed the campus, members of Technology Community Association, Alpha Phi Omega and the Arnold Air Society helped, and the Personnel Special Services Office offered organizational advice. Student Center and Audio Visual staff members set up the Sala de Puerto facility and ran audio equipment which supplied music for donors.

More than 300 Technology Matrons volunteers took medical histories and temperatures, worked in the donor room and staffed the canteen.

In a Blood Drive questionnaire inquiring about the frequency of future drives, some 350 members of the community indicated willingness to donate blood five times a year.

The next Blood Drive is tentatively scheduled for November 5-9.

The last lecture before the MIT spring recess, March 25 to April 1, will be presented Wednesday, March 21, at 2pm by Midge MacKenzie, a British commercial and experimental filmmaker. Miss MacKenzie's lecture subject is "Sex Roles in Films," and the screening Wednesday evening will include "Wild Party," a film made in 1929 starring Clara Bow and Frederick March, and Mai Zeitlerling's "The Girls."

When the course resumes April 4, Steve Morrison, a documentary filmmaker, will discuss his work over a period of years filming and taping the conflict in Northern Ireland. The following week, the classicist William Arrowsmith, University Professor at Boston University, will address himself to the question "What has Greek drama got to do with the movies?"

Anyone interested in enrolling in the course should be in touch with Professor Leacock or his assistant in the film section office, E21-010, Ext. 3-1606.

TECH TALK
Volume 17, Number 36
March 21, 1973

Editor
Joanne Miller

Staff
Ellen Burbank
Robert M. Byers
Bobbie Cochran
Sally Hamilton
Linda Omohundro
Peter Spackman
William T. Struble

Business Manager
Paul E. Johnson

Tech Talk is published 50 times a year by the Institute Information Services, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Mass. 02139, and distributed free to all members of the MIT community. Additional copies are available in the Information Center (Room 7-111) or in the News Office (Room 5-105). Large numbers of additional copies should be requested within two weeks of the issue date.

Mail subscriptions are \$5 per year. Checks should be made payable to MIT, and mailed to the Business Manager, Room 5-122, MIT, Cambridge, Mass. 02139.

Please address all news and comment to the editorial office, Room 5-111, Ext. 3-3277.

Poetry of Kunitz

Stanley Kunitz, the well known New York poet, will give a reading in the Mezzanine Lounge of the Student Center at MIT Thursday, April 5, at 8:00pm.

The reading, part of the Visiting Poets Series sponsored by the Council for the Arts at MIT, is open to the public without charge. Mr. Kunitz will be introduced by Roy Lamson, professor of humanities at MIT.

During the afternoon of April 5, Mr. Kunitz will meet with students in the Modern Poets class, conducted by MIT poet Barry Spacks, associate professor of literature, where he will discuss poems from his latest collection, *The Testing Tree*.

"Stanley Kunitz is among the top dozen poets people are conscious of in this country," said Professor Spacks. "He has an appreciable reputation that is bound to last, and is an admirably available poet who writes under the pressure of strong personal emotion without being obscure."

Mr. Kunitz, who has taught at Columbia University since 1963, is a member of the Council for the Arts at MIT. *The Testing Tree* is his fourth book of verse, the others being *Intellectual Things*, *Passport to the War*, and *Selected Poems, 1928-1958*, for which he won the Pulitzer Prize in Poetry in 1959. Mr. Kunitz, who has also won the Levinson Prize of Poetry Magazine, is editor of the Yale Younger Poets series, and a member of the National Institute of Arts and Letters.

THE BOTTOM OF THE GLASS

Not by planning and not by choosing
I learned the mastery.
What a damnable trade
where winning is like losing!
The wheel keeps spinning,
the thread gets broken,
my hand cannot tell
its work from its loafing.
Life aims at the tragic:
what makes it ridiculous?
In age as in youth
the joke is preposterous.
And nothing shall save me
from meanness and sinning
but more of the same,
more losing like winning.

THE FLIGHT OF APOLLO

1

Earth was my home, but even there I was a stranger. This mineral crust. I walk like a swimmer. What titanic bombardments in those old astral wars! I know what I know: I shall never escape from strangeness or complete my journey. Think of me as nostalgic, afraid, exalted. I am your man on the moon, a speck of megalomania, restless for the leap toward island universes pulsing beyond where the constellations set. Infinite space overwhelms the human heart, but in the middle of nowhere life inexorably calls to life. Forward my mail to Mars. What news from the Great Spiral Nebula in Andromeda and the Magellanic Clouds?

2

I was a stranger on earth.
Stepping on the moon, I begin
the gay pilgrimage to new
Jerusalems
in foreign galaxies.
Heat. Cold. Craters of silence.
The Sea of Tranquillity
rolling on the shores of entropy.
And, beyond,
the intelligence of the stars.

"The Bottom of the Glass" and "Flight of Apollo" from *The Testing Tree: Poems by Stanley Kunitz*. Copyright (c) 1962, 1969, 1971 by Stanley Kunitz. Reprinted by permission of Little, Brown and Company in association with *The Atlantic Monthly Press*.

Books Added
To Bake Sale

The Technology Wives Organization will hold its annual Spring Bake Sale on Thursday, March 22, in the Building 10 Lobby.

The TWOs have added something new this year—besides their popular baked goods, they will sell used books.

The Bake / Book Sale will begin at 8am and last until everything is sold. Forget that diet and feast your eyes and appetites on cakes, cookies, brownies, doughnuts, bread, pies and fudge.

Women's Forum

Members of the Women's Forum will sponsor a second career development workshop Tuesday, March 27, from 7 to 9pm in Room 10-280. The meeting will center on goal clarifications and a planning exercise will be used.

Forms Due

Student freshman evaluation forms must be returned to instructors by Friday, March 23. The deadline for instructors is Monday, April 2.

Deutsch, Demos Named to Head
LNS, Bates Linear Accelerator

Professor Martin Deutsch of the MIT Department of Physics and a noted experimental physicist has been named director of the MIT Laboratory for Nuclear Science succeeding Professor Peter T. Demos who has become permanent director of the Bates Linear Accelerator, MIT's new facility for the study of nuclear physics at Middleton, Mass.

Announcement of the appointments was made by Dr. Albert G.

Hill, MIT vice president for research.

Professor Deutsch is best known for the discovery of positronium. Positronium had only theoretical existence until 1951 when Professor Deutsch's research resulted in the positive discovery and subsequently the determination of some of the properties of the element.

Since 1960 Professor Deutsch has worked primarily in the field

of elementary particle physics at the Harvard-MIT Cambridge Electron Accelerator and at other laboratories. He has also served as chairman of the steering committee for LNS, an MIT interdepartmental center for interdisciplinary research in nuclear sciences.

A native of Vienna, Austria, Professor Deutsch came to the US in 1935. He received the S.B. degree in 1937 and the Ph.D. in 1941, both from MIT. He was an instructor in physics at MIT from 1941-45. From 1944-46 while on leave from MIT, he was a member of the Manhattan Project at Los Alamos, N.M. He was appointed assistant professor of physics in 1945, associate professor in 1949 and professor in 1953. He has twice held Guggenheim Fellowships, in 1953-54 and in 1960-61.

Professor Deutsch is a member of the American Physical Society, the American Association for the Advancement of Science, the American Academy of Arts and Sciences, the National Academy of Sciences and the Federation of American Scientists which he served as vice president in 1956.

Professor Demos has been involved with research in low and intermediate energy nuclear physics. He has been responsible with others in LNS for the construction of the Bates Accelerator. Assembly of the basic accelerator, which will have a maximum beam energy of 400 million electron volts, was completed in December 1972. The accelerator is at present being made operational in preparation for the start up of experiments this coming fall.

Born in Toronto, Ontario, Professor Demos received the B.Sc. degree in 1941 from Queens University in Kingston, Ontario. During World War II he did ballistics research for the Canadian National Research Council and the Canadian Armaments Research and Development Establishment. He came to MIT in 1946 as a research associate and received the Ph.D. degree in physics from MIT in 1951. He was appointed associate director of LNS in 1952 and director in 1961, when he was also named professor of physics.

From 1960-69 Professor Demos was a member of the Board of Trustees of the Associated Universities, Inc., formed by MIT and eight other universities to operate Brookhaven National Laboratory on Long Island.

Professor Demos is a member of the American Physical Society and the American Academy of Arts and Sciences. He has served on several national committees on radiation and the applications of radiation.

Professor Deutsch lives at (43 Reservoir St.) Cambridge, Mass., and Professor Demos lives at (49 Orchard St.) Belmont, Mass.

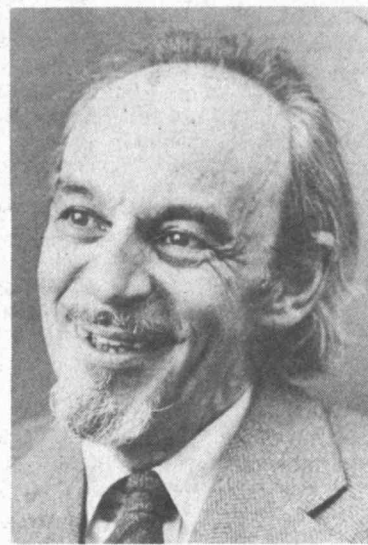
Marksmanship
Class Offered

The MIT Pistol and Rifle Club will begin a five-week course in basic pistol marksmanship on Thursday, March 29, at 6:30 to 8:30pm in duPont Pistol Range.

Enrollment will be limited to the first 20 adult members of the MIT community who apply. A \$10 fee will cover pistols, ammunition and targets. To apply, call George Sechen at Ext. 3-2398 or Range Master Thomas P. McLennan at Ext. 3-3296.



Professor Demos



Professor Deutsch

—Photos by Margo Foote

KILLIAN LECTURES

International Health Plan
To Be Scrimshaw Topic

Dr. Nevin S. Scrimshaw, head of the MIT Department of Nutrition and Food Science and first recipient of MIT's Killian Faculty Achievement Award, will discuss myths and reality in international health planning in the first of the Killian Award lectures Thursday, March 22, at 4:15pm in McDermott Hall (Room 54-100).

Dr. Scrimshaw, an authority on nutrition and the effects of malnutrition, has studied first hand the effects of famine in Pakistan and, more recently in North and South Vietnam, Laos and Cambodia, the latter as a consultant to the US Senate's Subcommittee on Refugees. The second of his Killian Lectures is planned for Thursday, April 12, and will cover findings he and others made during the recent official tour through Southeast Asia.

The award was established by the MIT faculty as a permanent tribute to Dr. James R. Killian, Jr., former President and Chairman of the Corporation and now Honorary Chairman of the Corporation. Its purpose is "to recognize extraordinary professional accomplishments" by MIT faculty and to communicate these achievements to the members of the MIT community.

Faculty to Meet

A regular meeting of the faculty will be held Wednesday (today), March 21, at 3:15 in Room 10-250.

The agenda includes:
Report of the Committee on Curricula;

Nomination and election of members of the selection committee for the James R. Killian Achievement Award;

Report of the CEP Special Committee on End of Term Arrangements, spring 1972;

Presentation and discussion of the report of the Special Committee on Freshman Pass/Fail Grading;

Presentation and discussion of the Report of the Joint Committee on the Wellesley-MIT Exchange.



Mr. Ball

—Photo by Margo Foote

Charles H. Ball,
Editor, Named
By News Office

Charles H. Ball, until recently the city editor of the Boston Herald American, has been appointed assistant director of the MIT News Office.

Ball had been city editor of the Herald American and before that, the Herald Traveler, for more than three years. He had been with the Herald Traveler since 1958 as a reporter, feature writer and aviation writer.

He is a graduate of Boston University and the Columbia University Graduate School of Journalism. He lives in Brockton with his wife, Harriet, and three children.

THE INSTITUTE CALENDAR

March 21
through
March 30

Events of Special Interest

Dance Workshop

Presents 9 week courses in Modern, Afro-American and M/J/B dance, starting on Mon, Apr 2. For information Chris Peterson, 492-6983.

Rain - The MIT Literary Magazine

The MIT Literary Society will be selling the Spring '73 issue of RAIN. Apr 2-6, Building 10 Lobby.

Diffraction of Evanescent Waves

Dr. K. L. Chandiramani, Bolt, Beranek & Newman. Interdepartmental Acoustics Seminar. 4pm, Rm 3-370. Coffee, 3:30pm, Miller Room (1-114). Thurs, Apr 5

Goyokin and To Love Again

Japanese Student Association. Sunday, Apr 1, 2pm, Kresge. Tickets \$2.

Open-House for Students Interested in Majoring in Biology

Discussion led by Professor Magasanik, head of the Biology Department, concerning careers and programs in this field. Refreshments. Wed, Mar 21, 4pm, Room 16-134.

Multi-Projection Presentations by John Kurtich

"Athens" and "Archeology" - media portraits using a seven-simultaneous-image projection system and quadraphonic sound installations. Wed, Mar 21 and Thurs Mar 22, 5pm, Building 7 Lobby.

Poetry Reading by Robert Peters*

The Humanities Department presents Mr. Robert Peters who is teaching in the Writing Program at the University of California at Irvine. Wed, Mar 21, 7pm, Rm 14E-304.

Tech Wives Bake and Book Sale

Will be held in the Main Lobby of Building 10, Thurs, Mar 22, 8am.

Fighting Arts of the Orient Exhibition

The Student Art Association's series on the "Arts of the Orient" will present live demonstrations of Shao-Lin Kung Fu, including the Tiger and Crane styles and the techniques of Chinese single-edged sword and Hwa-Yu. Fri, Mar 30, 8:30pm, Kresge. Tickets \$3.50, on sale at the MIT Student Activities office during the day.

Folk and Square Dance Teach-In*

The MIT Folk Dance Club and the Tech Squares are sponsoring an afternoon of beginning dancing in the Bldg 7 Lobby to protest the new "structure" which makes it difficult to dance in the lobby. Wednesday, Mar 28, 12 noon.

Seminars and Lectures

Wednesday, March 21

Telecommunications and Education at MIT

Prof. Ithiel Pool, political science, and a panel. Education Division Colloquium. 12n, Rm 37-252.

An Evaluation of Dental Implant Research

Leonard I. Linkow, D.D.S., New York, New York. Oral Science Seminar. 3pm, Rm E18-301.

Fibrous Polymers - Use of Crosslinking with Thermal Analysis to Study Nylon 6

Dr. Nancy Watkins, American Enka Company. Mechanical Engineering Seminar. 3pm, Rm 3-343.

The Rising Total Cross-Section

Prof. Hung Cheng, MIT. Physics High Energy Seminar. 4:30pm, Rm 26-414. Coffee, 4pm.

Thursday, March 22

System Dynamics

Prof. Jay W. Forrester, management, Seminar Series on Systems Analysis. 2-3:30pm, Rm 3-270.

Computers in the Design and Modelling of Manufacturing Systems

Scott Rhodes and Richard M. Tavan, Draper Lab. Production Automation and Manufacturing Seminar Series. 3:30pm, Rm 37-212.

Analytical Chemistry at Kodak

Dr. Carl Zuehlke, head, Methods Research and Technical Services Division, Eastman Kodak Co. Analytical Chemistry Seminar. 4pm, Rm 8-105.

Control on the Torus - Avoiding the Crunch

Prof. James E. Potter, aero/astro. Decision and Control Science Seminar. 4pm, Rm 39-400.

A Model for Carbon Monoxide Emissions from an Industrial Gas Turbine Engine

Alan R. Morr, graduate student, Mechanical Engineering Doctoral Thesis Seminar. 4pm, Rm 3-343.

On Being Scientific: Lord Kelvin's Opposition to Evolutionary Theory

Dr. Harold I. Sharlin, Iowa State University. Commentators: Elting Morison, 1926 Killian Professor, Sanborn C. Brown, Professor of Physics and Associate Dean of Graduate School. Technology Studies Workshop. 4pm, Room 14E-304. Coffee, 3:45pm.

On Johnson's Model of Quarks

Prof. Jeffrey Mandula, California Institute of Technology, Pasadena. Applied Mathematics Colloquium. 4pm, Rm 2-338. Tea, 3:30pm, Rm 2-349.

Polycrystalline Ceramic Lasers

Dr. C. Greskovitch, GE. Ceramic Seminar Series. 4pm, Rm 31-161. Coffee, 3:40.

Status of the IBM Webber-Type Gravity Wave Detection Experiment

Dr. James L. Levine, IBM Thomas J. Watson Research Center. Physics Colloquium. 4:30pm, Rm 26-100. Coffee, 4pm, Rm 26-110.

Some Organic Chemistry of Molybdenum and Tungsten

Prof. M. L. H. Green, Oxford, Inorganic Chemistry Colloquium. 5pm, Rm 4-370. Coffee, 4:30pm, Rm 6-321.

Satellite Communications in India*

George Rathjens, political science. Seminar on Social Values and Technical Transfers in the Third World. 7:30pm, Rm 10-280. Foreign Students welcome.

Friday, March 23

Chemical Engineering 10.992 Seminars

A. LaMotte, "Immobilization of ATP Regenerating Enzymes", 2pm; H. Gamm, "Mass Transfer Aspects in Glass Furnace Simulation". 3pm, Rm 10-105.

Nuclear Engineering 22.911/22.912 Doctoral Seminars

R. Chin, "DepleSyn: A Three-Dimensional, Time Dependent, Synthesis, Depletion Code." D. Hutchinson, "Apparatus for Ion Temperature Measurement of a Hot Dense Plasma." 3-5pm, Rm NW12-222.

Metallurgy at the Argentinian Atomic Energy Commission and its Impact on Argentinian Industrial Development

Dr. Jorge Sabato, former chief metallurgist at the Argentinian AEC. Joint Lecture: Departments of Metallurgy, Nuclear Engineering and the Center for Material Science and Engineering. 4pm, Rm 9-150. Coffee, 3:45pm.

Wednesday, March 28

Yoga in its Entirety

Swami Sarvagatananda, Ramakrishna Vedanta Society, Boston. Sangam Lecture Series on India. 6pm, Rm 9-150.

Community Meetings

The Faculty will hold a regular meeting on Wednesday, March 21 at 3:15pm in Room 10-250.

Graduate Student Council

Meeting. Wed, Mar 21, 5:30pm, Walker Dining Room. Dinner provided.

Student Committee on Educational Policy

Course evaluation meeting. Wed, Mar 21, 8:30pm, Rm W20-400.

MIT Faculty Club

Greek-Nite. Wed, Mar 23, 6:30pm, \$6.95. Happy hour, 4:30.

Women's Forum

Nancy Chodorow, a Ph.D candidate in sociology at Brandeis will speak on "Mothering and the Development of Sex Roles." Mon, Mar 26, 12n, Rm 10-105.

MIT Club Notes and Meetings

Auto Club

Ralph Meany, Porsche racer, will be guest speaker. Bob Perron will have slides on the Daytona 24-Hour Race. Wed, Mar 21, 8:30pm, Lobdell student Center.

Bridge Club*

ACBL Duplicate Bridge. Thurs, 7pm, Student Center Rm 473. No card fees if under 5 tables.

Chess Club

Sat. and Sun, 1:30-5:30pm, Student Center Rm 473.

Ergo

Staff meeting. Sun, 7pm, Student Center Rm 443.

Judo Club**

H. Yanagi, 5th degree black belt, chief instructor. Mon, Wed, Fri, 5-6:30pm; Sat 1-3pm; duPont Exercise Rm. M. Portnoff, X3-5954.

Hobby Shop**

Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$6/term for students; \$10/term for community. Call X3-4343.

Karate Club**

Beginner and intermediate classes in Goju style. Mon and Wed, 7:30pm, duPont T-Club Lounge. For info, call X3-2018.

Kung Fu Club**

Northern Praying Mantis. Tues, Thurs 7-9pm, duPont Athletic Center. For info, H.C. Wong, 876-5071.

MIT Wheelmen**

All aspects of bicycles and bicycling discussed, events planned, advice and help given. Thurs, 7:30pm, Rm 1-246. Call Harry, X2384 Dorm.

MIT/DL Duplicate Bridge Club**

Tues, 6pm, Student Center Rm 473.

Rugby Club**

Practice sessions; Tues, Thurs, 8pm; Sat, 1pm; meet in duPont Gym.

Soaring Association**

General meeting. Tues, Mar 20, 7:30pm, Student Center Rm 407.

Student Committee on Educational Policy

Course evaluation meeting, Wed, Mar 21, 8:30pm, Rm W20-400.

Student Homophile League*

Meeting and coffee hour. Sun, 4-6pm, Rm 14E-307. All men and women welcome. For gay help (anonymous) at MIT, call student gay tutor, 492-7871, anytime.

Science Fiction Society*

Fri, 5pm, Rm 1-236.

Strategic Games Society

Sat, 1pm, Walker Rm 318. Club offers opponents and discounts on merchandise to members plus gaming periodicals library. Kevin Slimak, X0389 Dorm.

Student Information Processing Board Meeting*

Mon, 7:30pm, Rm 39-200.

Tae Kwon Do Club

Tues, Thurs, 5-7pm; Sat, 11am-1pm. duPont T-Club Lounge. Call Jae Kim, X9212 Dorm.

Tech Engineering News**

General staff meeting, Sun, 5pm, Rm W20-453.

Technique

Staff meetings. Sat, 11am, Student Center Rm 451.

Tech Squares***

Western style square dancing. Tues, 8-11pm, Sala de Puerto Rico. \$1. First time free.

Tiddlywinks Association*

Wed, 8pm, Student Center Rm 491.

Unicycle Club*

Activities and beginners' session, Sun, 1pm, in front of Student Center.

Friday Afternoon Club**

Music, conversation and all the cold draft you can drink. Fridays, 6pm, the Thirsty Ear in Ashdown basement. Admission: \$1 men, 50 cents women. Must be over 18.

Muddy Charles Pub**

Join your friends for music, beer, wine, snacks, conversation at the Muddy Charles Pub, 110 Walker. New Hours: Mon-Fri, 11:30am-2pm and 4-7:30pm; Saturday, 7-12pm. Starting January 1, nightly specials will include: Mon, all wines 25 cents; Tues through Thurs, free pretzels and chips. Call GSC, X3-2195.

SCC Pot Luck Coffeehouse*

Live entertainment every Fri and Sat, 8:30pm to 12m. Student Center Mezzanine Lounge. Free coffee, cider, doughnuts. Sponsored by Student Center Committee. Volunteers to perform or otherwise help out, call Paul Mailman, dorm 9626, or Doug Fried, dorm 8767.

Movies

Film and Lecture Series

Architecture 4.097. Midge MacKenzie lecture on "Sex Roles in Films", Part II. Wed, Mar 21, 2pm, Rm E21-010 followed by a Feminist film, title to be announced. 7pm. Free.

Great Catherine

LSC. Fri, Mar 23, 7pm & 9:30pm, Rm 10-250. Tickets 50 cents. MIT or Wellesley ID.

SCC: "I Know Who You Are, and I Saw What You Did!"

Student Center Committee Midnight Movie Series. Fri, Mar 23, 12m, Sala de Puerto Rico, MIT or Wellesley ID. Free.

The Dirty Dozen

LSC. Sat, Mar 24, 7pm and 10pm, Rm 10-250. Tickets 50 cents. MIT or Wellesley ID.

Western Union

LSC, Sun, Mar 25, 7pm. Rm 10-250. Tickets 50 cents. No ID.

The Dunwich Horror

LSC. Fri, Mar 30, 7pm and 9:30pm, Rm 10-250. Tickets 50 cents. MIT or Wellesley ID.

Dance Free Films*

Movies (16mm), dancing, multimedia happening, audience participation. Architecture student project. Every Thurs, Fri, Sat, 7-12pm, Odd Fellows Hall, 536 Mass Ave, Cambridge. Tickets: \$1 or 75 cents w/costume. Fruit and cider.

Music

The Glazer Duo

Robert Glazer, violist, and Gilda Glazer, pianist playing works by Telemann, David Epstein, Anton Webern and Hindemith. Wed, Mar 21, 8pm, Kresge. Free.

Noonhour Concert*

Betsy McCory, harp. Thurs, Mar 22, 12n, Chapel. Free.

Nashir (We will sing)*

Learn Hebrew and Yiddish songs with college and young working people. Tues, Mar 27, 7:30pm, Hillel House on Bay State Road. Free.

Glee Club

Rehearsals. Works by Stravinsky, Brahms, Mozart, Schubert. Tues, Wed, Thurs, 5pm, Kresge.

Theater and Shows

Community Players

Auditions for Brecht's "Good Woman of Setzuan", Wed, Thurs, Mar 21, 22, 7:30-11pm, Rm 5-218.

China Night
Presentation of Chinese classical music, folk songs and dances. Sat, Mar 24, 7:30pm, Sanders Theater, Memorial Hall, Harvard University. Tickets \$2-\$4, on sale at Holyoke Center, Harvard Sq, after Mar 22, 50 cents extra at Sanders Theater.

Dance

Beginners yoga class. Friday, Mar 30, 5:45pm, Bldg 10-340.

The Divine Light Dance Ensemble
Presentation of Krishna Lila, a colorful tale from the life of Lord Krishna, blending traditional Indian and modern interpretive music and dance. Sat, Mar 31, 8pm, Kresge. Tickets \$2 and \$1.50 for students.

Folk Dance Club*
International, Sun, 7:30-11pm, Sala. **Balkan**, Tues, 7:30-11pm, Student Center Rm 491. **Israeli**, Thurs, 7:15-10:15pm, duPont Club Lounge. **Afternoon dance break**, Fri, 12:30-1:30pm, Bldg 7 Lobby.

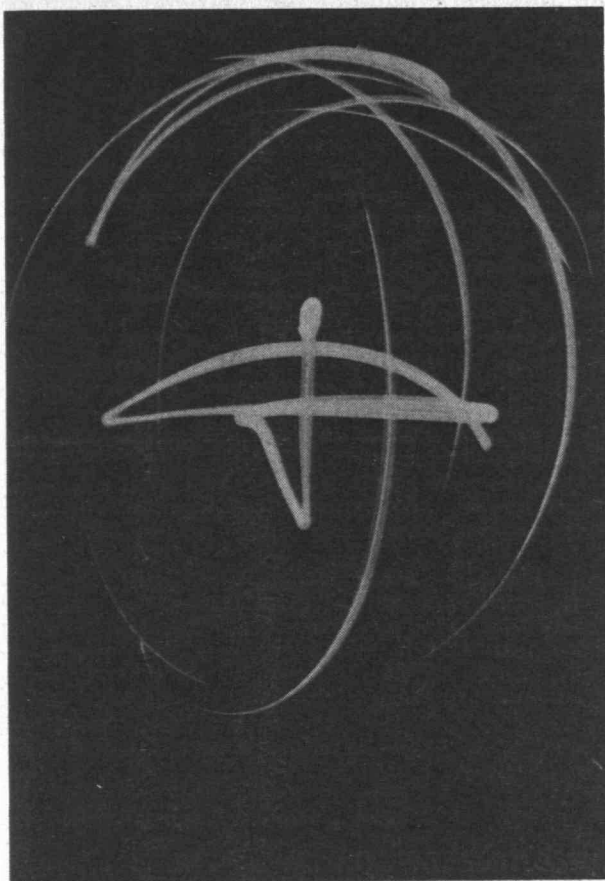
Exhibitions

Sculptures by Harold Paris - Souls and Indian Miniatures from the Collection of John Kenneth Galbraith
Hayden Corridor Gallery. Mar 16-Apr 7. Open 10am-4pm, Mon-Sat.

Botanical Illustrations from the Massachusetts Horticultural Society and the Arnold Arboretum
Hayden Corridor Gallery, March 16-April 11. Corridor Gallery is always open.

Photo Exhibit - Transformations
The results of an IAP workshop at the Creative Photography Lab by instructors John Weiss and Bob Tycast. Mar 19-Apr 6, Lobby 7, Second Level.

Photographs by George Thomas
Creative Photography Gallery (120 Mass. Ave.). Mar 10-Apr 10. Open daily 10am-6pm. Free.



This photograph by Barbara Morgan is part of the Light 7 exhibit opening this weekend in Hayden (see story, page 6).

Music Library Exhibit
Photographs of early instruments up to 1600. Daily, Rm 14E-109.

Hart Nautical Museum*
Exhibits include "Ocean Engineering Summer Laboratory Projects 1971 and 1972," and "Tugs and Towing." Bldg 5, first floor.

Athletics

Women's Tennis Team
Mon-Fri, 7:30-8:30pm, Tennis Courts. For information, Chris, X3-2913.

Religious Services and Activities

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

Campus Crusade for Christ/College Life*
Family time, fellowship and teachings from God's Word. Fridays, 7-9:30pm, Rm 1-132.

Christian Bible Discussion Group*
Thurs 1pm, Rm 20B-031. Call Prof. Schimmel, X3-6739, or Ralph Burgess, X3-2415.

Christian Study Group
Meeting to study God's Word and the lives of Christian men. Sun, 9:30am, McCormick Green Room. For information, 494-8778.

Christian Science Organization*
Tues 7:15pm, Rm 8-314. Meetings include testimonies of healing.

Divine Light*
Discourses on the knowledge of Shri Guru Maharaj Ji. Mon, Wed, Fri, 7:30pm, Rm 4-159.

Hillel Services*
Mon-Fri, 8am, Rm 7-108; Fri, Mar 16, Reform Sabbath Service, 8:15pm, followed by an Oneg Shabbat of Israeli folk dancing and singing, Chapel; Sat, Mar 17, Purim Services and Megillah Reading, 8pm, followed by a Purim Party, Talbot Lounge East Campus.

Yiddish classes, Thurs, 7pm-9pm, Rm 1-242; **Hebrew classes**, Wed: beg 6pm-7pm, intermed 5pm-6pm, Rm 1-203. For adv classes, X3-2982. **Mekhilta classes**, Fri 11:45am, Hillel Office 312 Memorial Drive.

Protestant Worship Service*
Sun, 11am, Chapel.

Roman Catholic Masses
Weekly masses in the Chapel: Sun, 9:15am, 12:15pm, 5:15pm; Tues, 5:05pm; Wed, 4:30pm; Fri, 12:05pm.

Vedanta Society*
Services, Fri, 5:15pm, Chapel. Followed by discussion hour, 6pm, Lobdell Dining Room.

Westgate I & II Bible Study
Wed, 8pm, Westgate I, apt 1202. For information, 494-8405 or 494-8778.

United Christian Fellowship*
Christians for dinner, food, fellowship. Wed, 5pm, Walker (at sign of the fish). Followed by singing, praying, sharing meeting, 6pm, Rm 14E-303.

Zen Society*
Meditation meetings. Mon through Fri, 8-9am, Chapel. Call 492-4945.

Islamic Society*
Prayers, Fri, 12:15pm, Kresge Rehearsal Rm B. Discussions on the Qur'anic interpretations of various aspects of life, Saturdays, 4pm, ISC Lounge, Walker 2nd floor, coffee served.

Announcements

Weekend bus tickets to Wellesley College now on sale at the MIT Student Center Coffee House. Schedules available.

A Student Center Committee
The possibility of purchasing new furniture for the SC lobby areas and function rooms is being discussed. If you have any interest or ideas concerning the new decor, please call and leave your name, X3-7974 or X3-3913.

Summer Jobs
Students, both graduate and undergraduate, interested in summer jobs are reminded to review the books of "leads" on display in the Student Financial Aid Office, Rm 5-119.

Rental Typewriters
Now available at Student Center Library. MIT ID required.

R/O Week
Work has started on organizing R/O Week for next year. If you have any modifications, new ideas or are interested in helping out, leave name at FAC Office, Rm 7-103.

Dining Service

Thurs, Mar 22
Lunch: Stuffed cabbage w/tomato sauce
Dinner: Georgia ham steak w/glazed peach

Fri, Mar 23
Lunch: Vegetable chop suey over toasted noodles
Dinner: London Broil w/mushroom gravy

Mon, Mar 26
Lunch: Beef Burgundy over rice
Dinner: Roast sirloin of beef, au jus

Tues, Mar 27
Lunch: Roast beef hash w/chili sauce
Dinner: pork chop w/New England baked beans

Wed, Mar 28
Lunch: Frankfurters w/sauerkraut
Dinner: B.B.Q. spareribs

Thurs, Mar 29
Lunch: Turkey and dumplings
Dinner: B.B.Q. spareribs

Fri, Mar 30
Lunch: Chicken fricassee over toasted noodles
Dinner: Baked bluefish fiesta

Mon, Apr 2
Lunch: Hot turkey sandwich w/gravy
Dinner: Braised swiss steak

Tues, Apr 3
Lunch: Ravioli w/meat sauce
Dinner: Yankee pot roast of beef. Bell Ringer Special Day at Dinner

Wed, Apr 4
Lunch: Seafood Creole over Rice
Dinner: B.B.Q. spareribs

Thurs, Apr 5
Lunch: Baked meat loaf w/gravy
Dinner: Fried chicken almondine

Fri, Apr 6
Lunch: French fried codfish cakes w/tomato sauce
Dinner: French fried fillet of sole w/tartar sauce.

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

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

Send notices for March 28 through April 6 to the Calendar Editor, Room 5-111, Ext. 3-3279, by noon Friday, March 23.

New UROP Listings

For more detailed information on UROP opportunities listed, MIT undergraduates should call or visit the Undergraduate Research Opportunities Program Office, Room 20B-141, Ext. 3-5049 or 3-4849. Undergraduates are also urged to check with the UROP bulletin board in the main corridor of the Institute.

Center for Advanced Visual Studies

A Fellow at the Center wants to develop an "open air" exhibit on a plot of ground at the Science Museum which would permit museum visitors to experience the natural conditions that existed before urbanization. In the planning stages now, an architectural model will be developed to depict the final exhibit. Students with experience in architectural modeling are needed to assist with the model development and construction and students with biological and geological backgrounds are needed to determine the natural conditions of the site. Interested students should contact Alan Sonfist, Ext. 3-6849.

Children's Hospital

Opportunities with a laboratory engaged in cardiovascular research with heavy emphasis on the use of ultrasonic and radio telemetry techniques to measure

such parameters as blood flow, blood pressure and internal organ dimensions under a variety of laboratory and field conditions. Engineering and bio-engineering students with physics, chemistry, chemical engineering or electrical engineering backgrounds might find a project of interest. Specific projects arranged based on mutual interest.

Intertel, Inc.

This data communications company has suggested a number of general areas as potential projects for undergraduates. (1) For a student with a strong background in linear systems theory a project in the area of communications theory is a possibility—for example, a theoretical study on how to combat noise and phase jitter; (2) An undergraduate interested in circuit theory could investigate circuit technology, look at large scale integration techniques and eventually design and build circuits; (3) A student with a math background could study faster algorithms for computing arithmetic functions; and (4) Computer Nets have had a strong impact on commercial operations. A person interested in computer systems or who has an interest in management might find a project. Any projects will be based on mutual interest and negotiation.

Burlington

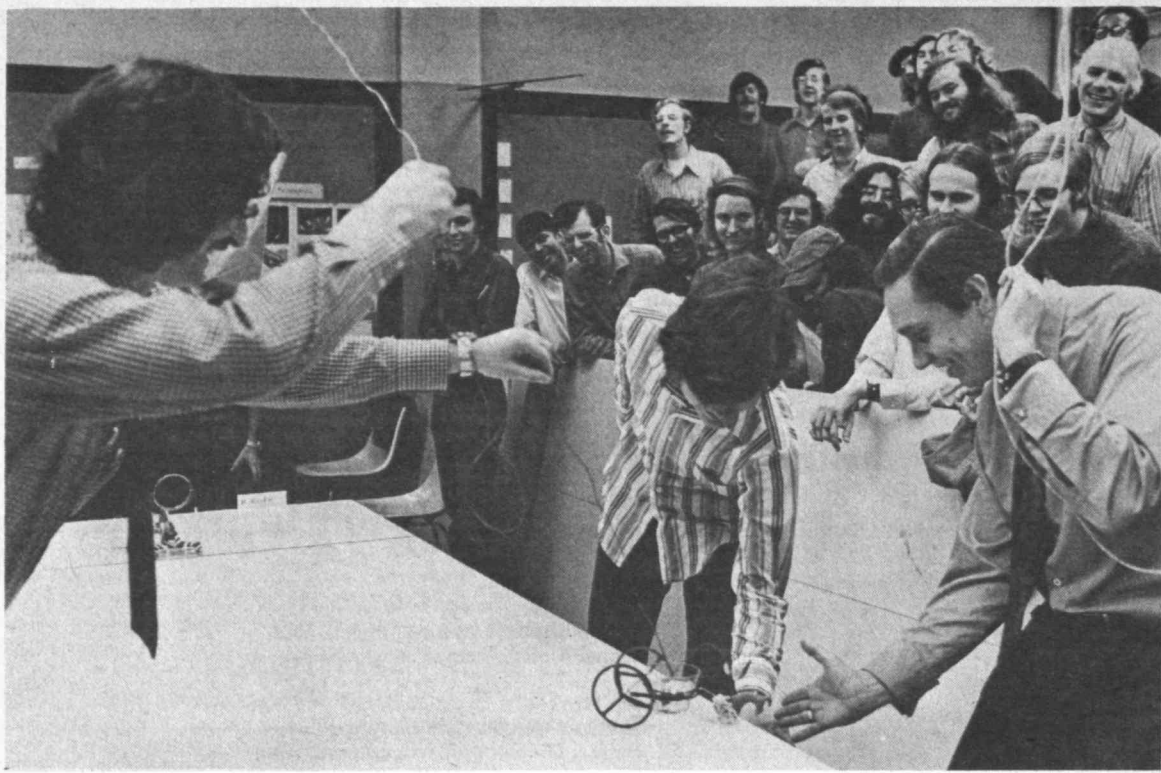
Foreign Study Opportunities

Year Abroad Scholarships For Afro-American Undergraduates

The Ford Foundation has provided a scholarship fund to The American University in Cairo for outstanding Afro-American students to spend their junior year studying in Cairo. Applications will be considered from students who: have displayed qualities of leadership and academic excellence; have demonstrated an interest in the problems of economic, social, or technological development; are currently enrolled in a four-year college and will be in their junior year in 1973-74. Two types of scholarships are available: 1) maintenance scholarship: round-trip transportation, room, board, and living expenses in Cairo (approximately \$1800 in Egyptian Pounds). 2) tuition and maintenance scholarships: tuition of \$2000 for the academic year, round-trip transportation, room, board, and living expenses in Cairo.

For applications write to Office of Fellowships and Scholarships, The American University in Cairo, 866 United Nations Plaza, New York, New York 10017. Complete applications with supporting documents must be submitted by April 15.

See Professor Locke or Paula Kelly, Room 10-303, Ext. 3-5243, for further details.



Professor Woodie C. Flowers, right, Michael L. Rucker, center, a freshman from Phoenix, Arizona, and Professor Igor Paul, left, try to catch Rucker's Water Waiter as it veers off the racetrack.

—Photos by Margo Foote

Engineering Project: 'Don't Spill a Drop'

(Continued from page 1)

ends and told each student in the class to make a device, using only the given materials, that would transport a plastic cup of water eight feet without spilling it.

Sound simple? Not when you look into the bag of materials.

Included were a small dc electric motor, rubber bands, a lead pencil, a pine board, paper clips, welding rod, piano wire, tongue depressors, string, soda straws, a

dowel rod, a pink eraser, four nuts and bolts, some wire, a piece of masonite, a couple of gears, a tin can, a one-pound sack of sand, an aluminum plate, a small sheet of copper, a cake of florist's foam, a steel rod and assorted rubber, plastic and paper tubing.

The race course itself was a sheet of plywood on a table top with a vertical wooden wall just beyond the finish line—a wall that would certainly cause the water

glass to topple if a vehicle crashed into it. Power for the motor, if used, could be supplied via an overhead umbilical line hooked to a stationary battery.

"More than half the class completed the course," Professor Wilson said. "Ideas for powering and braking were remarkably imaginative. Virtually all students began with the idea that the glass of water would have to be suspended pendulum-like so it could swing back and forth during acceleration and deceleration."

Most of the transporters turned out to be three- and four-wheel vehicles ranging in size from six inches to a foot. A few were larger, including one nine-feet long with the water glass balanced on the nose (when the front finished, the back still had not crossed the starting line).

Lechter's winning machine—he named it "Oh! Angelica!"—was eight inches long with two wheels at the rear and a single drive wheel at the front. The drive wheel was connected to the on-board dc motor through a string-and-cone system known to engineers as a "fusee" device.

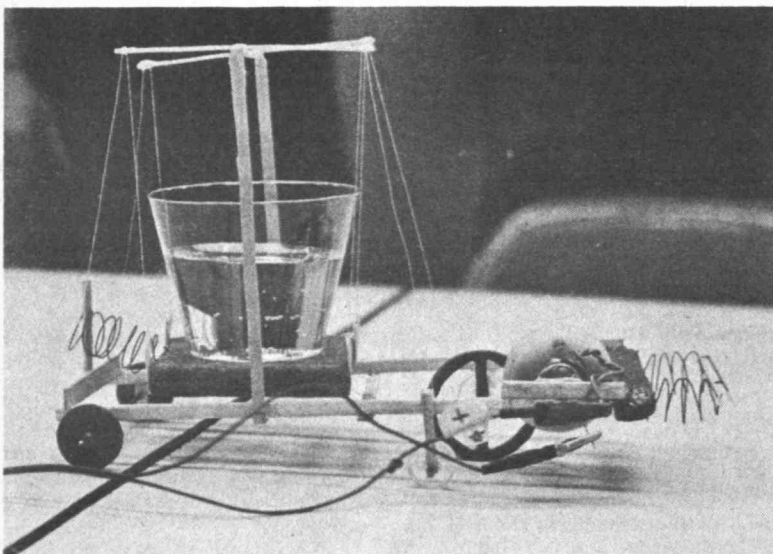
A cone which Lechter fashioned from the foam block was glued to the side of the wheel and wrapped with string. One end of the string was attached to a piece of the welding rod which served as an extension of the motor drive shaft. As the motor turned, the string was taken up by the drive shaft, unwinding from the large end of the cone first. This provided a varying gear ratio for the drive wheel during the race and helped shield the glass of water from sudden stops and starts.

Lechter suspended the glass—actually a plastic cup—under an arch made from a thick piece of wire taken from the base register of a piano. Untwisted paper clip wire, connected with epoxy glue, stabilized the arch in a forward direction. He cut wood strips from the tongue depressors to form the vehicle frame.

"Most of the cars completed the eight-foot test course in just a few seconds and—due to the suspension systems and the methods used to achieve gradual acceleration and deceleration—many were able to make it without spilling the water," Professor Wilson said.

Lechter said he spent hours working out the design idea for his winning vehicle, but there was still another reward besides winning.

"It was a lot of fun," he said.



Sideview of a Water Waiter vehicle sporting an intricate wire bumper.

Hayden Gallery to Show Selection of 'Light⁷' Photos

A selection from *Light⁷*, an exhibition of 85 photographs that portray different facets of light, will be displayed in the Hayden Corridor Gallery from March 23 through April 11.

Light⁷ was assembled by Minor White, professor of photography, in 1968. Subsequently bought by MIT in its entirety, *Light* formed the beginnings of MIT's contemporary photography collection.

Light⁷ was the first of Professor White's biennial photography shows based on a central theme. His subsequent shows have included *Be-ing Without Clothes* (1970) and *Octave of Prayer* (1972). Professor White is now soliciting photographs for his 1974 show, *Celebrations*. All of the shows are first exhibited at Hayden Gallery under the sponsorship of the MIT Committee on the Visual Arts.

To assemble *Light⁷*, White issued an open invitation that elicited more than 3,500 entries from over 200 photographers.

Of this total he selected 85 prints representing the work of 75 photographers. Some of the photographers represented are well-known professionals including Barbara Morgan, Lotte Jacobi and Ansel Adams, while others are amateurs.

The idea of dividing the show into seven groups, each one representing a different light level, occurred to White while he was making the final selection. According to him, some pictures naturally fit together and the entire collection could be divided into seven groups. White identified each of the groups or levels under separate headings such as "Let the Light Make Love," "Let the Light into the Self" and "Let the Light Regenerate."

The 1968 fall issue of *Aperture*, the photographic quarterly, was devoted to *Light⁷*, serving as the show's catalogue and including a descriptive text and several reproductions.



Alvin Dulcan, a junior in mechanical engineering from Washington, D.C., prepares his Water Waiter for the speed race.

MIT to Host National ATA Tennis Tourney

Some 300 predominantly black tennis players from across the country will gather on duPont tennis courts at MIT August 11-18 for the 1973 American Tennis Association national tournament co-hosted by MIT and the Sportsmen's Tennis Club of Boston.

The 1972 ATA tournament was held in Boston with matches conducted on courts at several institutions, including MIT. This year, however, the entire tournament will be held at MIT. The finals will be telecast live over 144 Public Broadcasting System via WGBH-TV.

"We look forward to coming back to MIT," Dr. Clyde Freeman, ATA president, said. "Last year the Institute supported the ATA unselfishly. We hope to continue

this happy association this year."

Amateur players from throughout the US will participate in the tourney and live in West Campus dormitories during the competition. In addition, MIT players and others from the Boston area will be welcome to enter the tourney.

The ATA was started in 1916 for black tennis players since black Americans were then barred from US Lawn Tennis Association tournaments. Segregation ended in 1940 during a famous USLTA tournament that matched Donald Budge against Jimmy McDaniel in the finals. The ATA, now integrated, has continued, however, to provide opportunities for the development of young black players. Arthur Ashe and Althea Gibson, who reached top professional ranks, are former ATA players.

Photo Show Portrays Thomas' Nova Scotia

Some 90 black and white photographs by George C. Thomas II, portraying Margaree Valley, Nova Scotia, and its people are on exhibit at the Creative Photography Gallery through April 13.

Thomas, an assistant professor of architecture at MIT since 1967, is working on "The Margaree Valley: A Document in Process"—a photographic project about land, sea, farming, fishing and families. The photographs in the exhibit come from this project.

Thomas received his A.B. from Princeton University in 1957 and his M.F.A. from the Boston Museum School in 1964. He has been a photographer for several organizations including the US Navy, the Peace Corps, Operations Crossroads Africa, Sarah Lawrence College in Paris, and the Outward Bound School in Maine. He has

been photographer in residence at Phillips Academy, Andover and at Project, Inc., Cambridge, and has taught at several secondary schools and institutions in New England.

The Creative Photography Gallery is located in duPont Gymnasium and is open daily from 10am until 6pm. There is no admission charge.

Clerical Skills

The Training Section of the Office of Personnel Development will continue registration for several clerical skills development classes and English conversation classes through Friday, March 23. Classes will begin Monday, March 26. For information call Ext. 3-1912 or 3-1913.

CLASSIFIED ADS

For Sale, Etc.

Furniture: mod bk cases, desks, new Thonet chrs, round white dining tbl, beds, must sell. Call 868-3784.

Pr tires Sear Polyglas, sz G-78-15, mtd on Int Travelall rims w/orig 40 mon guarnt, now 9 mos old, new \$90, now \$60. Helen, X5826 Linc.

Misc baby equip; sidetble; pictures; 15 prs of custom md lined drapes, \$10 pr; suitcases, \$4. Gundersen, X3-6085

Nearly new 7'x7' pup tent, wat/proof, sewn in floor, netting (window & door), \$35. X3-2902.

AR turntbl, gr cond; ADC 26 cartridge together \$50. Dave, 492-8394 lve yr number.

Den set, 2 piece, leather; coffee tbl, 2 endtbls, 2 lamps, almost new, \$250. Susan, X3-3727.

Car seat for baby, wd bassinet, rocking horse, exc cond, \$20 for all. Josephine, X3-3727.

Canoe, 15' fg, \$90; 20 gal elect water heater, \$20; electric stove for apt, \$25. Robert Harris, X7188 Linc.

New tire on rim, 6.5x13, \$20; 12 v batt, fully chrgd, \$10; car R, AM push button, \$15; starter Chevy II 63, \$10. Rai, X3-2413.

AM/FM stereo recvr, \$50; 2 5" spkrs w/inclosures, \$10; 30 stereo albums, \$30; pr of stereo hphones, \$10; or all for \$90. Sonnie, X8564 Dorm.

Craftsman snow blower, 6 hp, single stage, 2 yr old, \$160. Ira, X7634 Linc.

VW wheel, fits Beetle thru '65, \$5. Tony, X7191 Linc.

Lg desk, gd cond, \$25; coffee tbl, \$5. Robin, X3-1638.

Dynaco St-70 watt stereo amp, \$80; PAS-3 preamp, \$65. Dick, X3-4170 lve msg.

Surplus electronic gear, xmitters, rcvrs, oscills, etc, Hoover handy-vac, t rcd & much more. Jim Evans, 494-8414.

GE hvy duty gas dryer, 1 yr old, \$140. Sol, X8 4166 Draper (new & correct no.)

Matt and bx spring for double bed, Eric, X3-7813.

Marantz 7 T preamp, \$175; Advent 1100 A Dolby, \$150. Call 232-6021.

Mod Italian shoes, 3 prs, sz 5 1/2, slight platform sole, high heel, worn twice, orig \$35, now \$20 ea. Rosemary, X3-7971.

Dynaco A50 spkrs, w/2 woofer, \$150pr; Dynaco PAT 4/St120 combo, \$150; Heath AJ15 FM tuner, \$110; port hair dryer, free to student. Aldrich, X3-5360.

Army boots, sw 9, \$3; GE steam/dry iron, \$5; Kodak camera, \$4; infants jumper/walker, \$9. X8-4095.

Honey from Flor. orange blossom & wildflower, 75cents lb, aftnoon, Sat, Mar 24, in Lex. For details, Dave X7578 Linc.

Draperies, almost new, custom md, rose color, w/wh lining, 158"x98", new \$200, now \$100. Debby, X3-1712.

Martin guitar Mod O-18, exc cond, \$215. Frank, X3-5547.

Yamaha skis w/Tyroliia bndgs, \$25. X3-1944.

TEAC 6010 stereo t dk, new heads, yr old, must sell, best offer; Raleigh Sprite 27, 5 spd men's bike, 7mos old, almost new; factory sled sterbo equip at lowest prices avail. Lloyd, X9465 Dorm.

Heathkit amp, assembled, Mod AA21D, solid st, full controls, best offer. Call 625-8937.

Calculator HP-35, month old, nds a home, avoid a 6 wk delay in ordering. Dave, 494-9188 or 9517 Dorm.

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 Institute 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. 3-3270 or mailed to room 5-105. The deadline is noon Friday.

Rain/spring coat (contessa), Lord Taylor, sw 10-12, Exc cond, \$10. Dr. A. Buynr, X3-4155.

Persian carpets, 2 lovely rugs, 4.5x7. Call 547-2159.

Sears Kenmore 500 washer, 3 cycles, exc cond. \$300. Kosta, X3-2367.

Emerson Quiet-Cool a c, 15 yrs old, \$25. Ken Jordan, X7654.

Bolex super 8, 7.5 macrozoom camera w/case, exc cond, \$52. Tony, X3-5783.

B & D 7 1/2", 1 hp circular saw, used once, \$12. Larry, X8-4525.

Bucco windshield, br new, full sw, fits 450cc and up, w/ Honda & Harley brackets, new \$23, now \$15. Guy Petagni, X5597 Linc.

Cannon camera ft 50mm, f/1.2 lens, case, \$150. Gerry, X8-3643 Draper.

Sansui 350A, yr old, perf cond, asking \$160. Ralph, 266-2968.

Sofa, solid & comfortable, old fashion maroon, \$30. Diana, X3-2280 or X3-5935.

Filing cabinet, month old, hi quality, lock. Send msg to Marshall Burns, Rm 3-107.

KLH 18 tuner, \$75 or best; Dynaco preamp, \$40 or best, both in exc cond. Les 354-0807 aft 2pm.

Converse All-Stars, sw 9 1/2, worn once, \$8; 35mm slr Zenith Russian made camera. Demetri, 354-4442 evgs.

Pr 15" Ford wheel w/tires, \$10 pr. Arthur, X5415 Linc.

Skis, Marker-Tyroliia bndgs, 195 cm, \$25. Peter, X3-6818 or 494-8449.

Vehicles

'61 VW, gd cond mechanically. Call 494-8414 evgs.

'63 VW sunroof, runs but nds wk, \$75. Russell, X9495 Dorm.

'63 Mercury Marauder S-55, 390 cu inc, auto tr, a c, 114 K, eng gd, body fair, \$300. Arye, X3-4713.

'63 Buick Le Sabre, w/snows, new clutch & batt. 4dr stick, \$300 or best. Call 494-8688.

'65 Dodge Dart, GT, V-8, p s, gd running cond, \$200 or best. Ashok, X3-2943 or 494-8303.

'66 Mustang, 6 cyl, stand, gr w/blk int, clean gd cond, dependable, \$425. Mrs. Amdur, X3-2569.

'66 Le Mans, 6 cyl, auto tr, \$200. Viola, X3-4381.

'67 Cammaro, V-8, red, blk roof, p st & br, exc cond, \$950. Susan, X3-4607.

'67 Ford wgn, nds some wk, \$500. John X7808 Linc.

'68 VW Beetle must sell, v gd cond, almost family member. Call Horia, X3-6295.

'69 Chevy Impala, V-8, 4 dr hr top, auto tr, p st, R, 25 K, \$1450 firm. John, X3-7069.

'69 VW Fastback, rebt eng, new fr shocks, muffler, fr & r brakes, batt, w/body dent free, AMFM, \$850. Sherry, X3-1863.

'69 Ford Club wgn, Econoline, auto tr, windows all around, burglar alarm, body & eng in v gd cond, gd as camper, \$1,500. 536-5497.

'69 BMW-2002, nds eng wk & minor body repairs, \$700. Call 742-0252 evgs.

'70 Boss Mustang 302, coming out of shop with rebt eng, best offer. Antonio Couto, X3-5317.

'70 Chevy Camero, 8 cyl, 307 eng, 3 sp auto tr, gd tires, 38 K, \$1,700. Karen, X164 Linc.

'70 Fork Maverick, red, 6 cyl, 45 K, stand tr, snows, R, ht, orig owner, exc cond, \$1,200 or best. Guido, X3-3356.

'70 VW Beetle, 30 K, exc cond, orig owner, \$1,275. Call 899-6389.

'70 Toyota Mark II, 4 dr, auto tr, well cared for, X3-8875.

'71 Toyota Corolla fastback, exc cond, auto tr, R, lock down antenna, wh walls, snows, \$1300. Dr. O'Pray, 383-9146.

'71 Austin America, 43 K, stand tr, \$600 w/ haggle. Michael, X3-6035.

'71 Toyota Corolla 1600 st wgn, exc cond, R, a c, new snows, \$1500. Furlong, X7872 Linc.

'71 Plymouth Scamp, 2 dr hr top, auto tr, sure grip differential, red w/blk vinyl top, V8, p st, AMFM, new batt, shocks and tires, 27 K, v clean, must sell, \$2,100. Bob Clark, X3-5505.

'71 VW super Beetle, 22 K, exc cond, \$1,700. Natalie, X3-7594.

'71 Beetle VW, 59 K. Call John Doliveiri, X3-5317.

'71 Pinto, sm eng, 4 sp, gold w/dk gr int, R, fold dn rear seat, 34 K, \$1350. Skip, X146 Linc.

'71 Chevy Nova 51 K, p st, auto tr, cash carry, \$1795 firm. Ted Eliades, X8-3391 Draper.

'66 Harley-Davidson, 50cc Leggaro, \$125. Bob Terenzoni, X235 Linac-Midton.

'72 Honda 450, 600 mi w/lug rack & back rest, mint cond, \$1100. John Williams, X8-3371 Draper.

Kawasaki 90cc, exc cond, 800mi, 5 sp, top sp 70 mph, bright yellow, \$260. Jeanne, X7829 Linc.

Rowboat 12' w/foam floatation chambers, gd cond, \$35. X3-5584.

Viking 14' sailboat exc cond, orig \$1518, now \$650. Jack Terrell, X8-3361 Draper.

Dinghy 8' inflatable deluxe. Steve, X3-5743.

Housing

Arl, lg lk front studio, for single person, 20min to MIT, \$215 incl appli-ances, util, most furniture. Eykamp, X3-5685.

Bost, 1 BR, n Chas Riv Plaza, T, walk to MIT, avail 4/1, \$145/mo. Vicki, X3-1866.

Camb, lg mod BR, quiet str, n H Sq, a c, dishwasher, pking, h, w w carpet, w/complete furniture to sell also, avail 5/1-9/1, \$205/mo, renewable, Arthur, X3-3237.

Eastgate, BR, lease exp 8/31, avail 6/1, sublet for summer only or move in on long-term basis. Baily, X3-3648.

Camb, Weston Ave, 2 BR, ultra-mod, n MIT, ht, a c, pking, \$255/mo. Call Mulu, X3-3228.

Chastwn, lrg sunny 25ft LR, w/great view of Mystic Bridge, 2 double BRs, K, dishwasher, dsisposal, laundry, carpeted, easy pking, minutes to Bost & Camb, \$265/mo. Call X3-5852.

Melrose, 8 Rm Colonial w/lg wooded lot, finished Basement w/frpl, mid 40's. Mike, X8-3351.

Som, Northgate, BR, dishwasher, a c, avail 1/4, \$205 plus elect. Paul, X3-4226.

Stoneham, intersection of 93 and 128, mod 2 BR, avail 5/1, take over or renewable lease, \$215. Don Bosack X3-5958.

Tewksbury, Georgian Colonial split, 2min to 93 & 35 to MIT, 3 BR, B, LR w/frpl, K, DR w/glass drs, deck overlooking full acre of oak & pine, garage, utility rm, panelled, carpeted family rm, hall, den, avail mid June, \$38,900. Lorigan, X3-4471.

Wellesley home, 3 BRs, 1 1/2B, appli-anced eat-in K, formal D, LR w/frpl, ht sun porch, game rm, yrd bordering conservation land w/brook, exc cond, avail July, low \$50's. J. P. X3-3714.

Wilmington, Ranch style, LR w/frpl, a c, 3 BR, mod K, tile B, heated garage, lg tree studded lot, \$30's. Grant, X3-6275.

Lk Winnepesaukee summer rentals. George, X8-4415 Draper.

Lg furn Rm, gas stove, refrig, n bus line, pk for sm car, 15 min to Harvard Sq. Call X3-5915.

Animals

M miniature poodle, AKC reg, 4 yrs, apricot color. Mrs Cross, 868-1567.

Siamese for free, 3 mo old, m, hse trained, v affectionate, playful, intelligent. Allergic owner, 266-2968.

F kitten, 6 wks old, litter trained, all blk, looking for loving home. Oksanna, X3-5656.

Trio of kittens, blk & wh, 6 wks, hse broken. Terry, X7316 Linc.

Mice, adorable, friendly, hungry, nd home, mon old. Roberta, X3-7001.

Dog, mixed breed, m, 5mos old, good w/kids. Bob, X144 Linc.

Dog, mixed breed, spayed, 1 1/2yr old, free, loves people, nds loving home w/running area. Dick, X3-4643.

M cat, affectionate, yr old, blk & w, grayish whiskers, playful, purrs. Bill Gardner, X9646 Dorm.

Kitten, wanted, wh, orange or yellow, long fur, 5-10 wks old, wl give a gd home. Call Bob, X3-7220.

Lost and Found

Lost: blk wallet w/BU ID on Albany St, 3/9. Contact Patrick Leung, 262-5728.

Found: 4 keys on leather holder, inc 2 GM car keys, bldg 7, 3/7. Maryanne, X3-7294.

Wanted

Partner for 1/2 ownership of airplane. Mark, X7856 Linc.

Fem or male rmmte, for 3 BR apt in Cambport, \$60/mon. Call 492-0258.

Male or fem rmmte for 4 BR Camb apt, own rm, \$59/mon inc ht. Gloria, X3-5922.

Rider to Philly or S. Jersey, lve 3/23, ret 3/25 via priv airplane exp shr, \$38 r/trip. Tom X8-1331 Draper.

Sm girls bike. Meredith, X8-3511 Draper.

Wk as hs cleaner in Camb homes to help me thru music school, pref steady committments, \$3/hr. Susan, 492-8057 morns.

Nikon Pentax sportmatic II, 50mm; radio, port, batt, AC/DC-AMFM-SW. Herm, X3-3280.

Daily ride, Dorchester to MIT and back, will pay. Call Cheryl, X3-7791.

Table saw. Dan, X7713 Linc.

Babysitter for 2 kids, to live in or out, Bost, 20hr wk. Jerry, X3-7165.

Our hse burned down, and we nd some furniture (dresser, etc) chp or free, also looking for a used pressure cooker. Call Jeff, 492-6708 evgs.

Knwlg of charter flights Bost to Britain, pref Manchester, spring or early sum. Derek, X3-5732.

Daily ride fr Nwtnville to MIT, time flex, wl shr exp. Alphonso, X3-5877.

Rmmate, to shr lg 4BR apt, n Central Sq, w/3 MIT students, \$61/mo. Call Steve, X3-2038.

Sm used refrig, cheap or free for MIT lab. X3-7193.

Miscellaneous

Wd floors sanded & refinished, professionally, also painting, wall painting & papering, minor carpentry. Denny X3-5606.

Wl do gen & theses typing. Ethel, X3-6334.

MIT's BBC and Time-Life film rep offers films for rent or sale, film catalogues avail. Alan, 491-0569.

Painter, interior & ext. Call X3-1908 or 734-6788 evgs.

Typing, theses, reports, statistical. Jean, X3-1781.

Wl do gen (non-technical) typing in my home. Mrs. Walker, 864-0221.

Wl do gen or thesis typing. Nina, X8-3333 Draper.

Wl do general and thesis typing on IBM Selectric, fast and accurate. X3-4678.

Positions Available

These are some of the new positions relieved since the last Tech Talk ad. The Personnel Office is seeking individuals from within the Institute to fill these openings. Other available positions are posted in the Personnel Office, E19-239.

Personnel Officer: will have responsibility for policy interpretation, advice and assistance for all categories of non-academic employees in a group of Institute Centers and Laboratories. Officer will be responsible for providing assistance in

development of job descriptions, qualifications, grades and classifications

administration of wage and salary reviews includes promotions and transfers

individual career planning, counseling, including transfers and lay-offs

employee grievances, both union and non-union including grievance and arbitration preparation where required

There will also be a responsibility for a share of the recruitment measures, interviewing, etc. for all non-academic positions open at the Institute. Professional experience in Personnel with particular emphasis in administration of union agreements is highly desirable.

Secretary III or IV to three Personnel Officers in newly reorganized office will set up appointment, cases on new employees, handle phone calls from colleagues, Institute supervisors and applicants; check references; type letters, memos, reports; keep calendars and job lists updated; will maintain files and statistics. Lots of variety in a busy office.

Sr. Clerk - Receptionist III in newly organized administrative office will handle heavy traffic of applicants, new employees, MIT employees on all payroll levels. Receptionist must be alert, sensitive, mature, with good judgment to handle many situations simultaneously. Will set appointments, give out information regarding positions available, will do typing of jobs lists, mailing, statistics as required. Must enjoy people and detail work.

Secretary III or IV for three professors. Will act as office receptionist and handle all general secretarial duties. Fast accurate typing is needed for quizzes, reports, research proposals, technical manuscripts, dictaphone; organizational ability and maturity important.

Senior Payroll Clerk IV will act as liaison between the office and the Payroll and Personnel Offices. Keep personnel and time card records; maintain perpetual inventory reconciliation plus stock error report, accounts payable report. Minimum of three years business experience; accurate typing important. Strong accounting background required.

Secretary IV to three staff members of a new project in a research lab. Involves typing correspondence and reports, some editing; make travel arrangements; handle the routine office duties. Secretarial experience, organizational ability, accounting or book-keeping background and the ability to interact with students and faculty important.

Secretary IV to several professors and research affiliates in a laboratory. Good typing (shorthand desirable) for technical reports and correspondence. Ability to interact with students working on their theses and technical support personnel.

Please call for an appointment: extension 3-4251

Programming Consultant for the Information Processing Center to participate in the functions of the computing center's User Services Group which include the following:

- 1) User assistance - Assistance and consulting in programming information and debugging and tracking down special problems.
- 2) User information - Documentation of manuals, conducting seminars and short courses on special subjects, and special information searches.
- 3) Technical & Maintenance Support - Implementing and maintaining software items such as the debugging compilers and plotting packages.

Applicants should have experience with large scale IBM 360 or 370 computers either as an applications programmer, systems programmer, or programming consultant. A thorough knowledge of JCL, FORTRAN, and other languages and documentation and communication skills are necessary qualifications.

Programmer for the Information Processing Center to have responsibility for running PL/1 programs, debugging problems and maintaining documentation and back up. Applicants should have knowledge of IBM PL/1 and JCL in addition to familiarity with time sharing.

RICHARD E. HIGHAM
X3-4278

For Lincoln Laboratory
Switchboard Telephone Operator:
For operation of a 608-A Switchboard (4 positions, 2000 lines). Moderate typing ability desirable for operation of teletypewriter. Five-day week, 7:30a.m. to 4:00 p.m.

Grade II or III Records Clerk: To maintain Publications central files of reproducible material, including printer's repro artwork, and manuscript draft. Operate diazo copier and microfilm reader-printer. Act as courier between Publications and Photo Service. Some typing required.

Telephone Jane Notaro
ext. 7305, Lincoln

Injured Veteran Earns Skimeister Award for MIT

(This story by Dick Dew originally appeared in the Sunday Herald Advertiser, March 11, 1973 and is reprinted here with permission.)

The odds, when the 40-pound bomb went off, were that the driver of the armored personnel carrier would become an instant statistic, another Defense Department telegram.

But John Clippinger survived that savage blast in Vietnam's "Iron Triangle" district, returning

to civilian life six months later with a badly damaged foot and a medical discharge.

That brief bit of history is unquestionably one of the several reasons Clippinger took particular delight recently in winning a skimeister title for his school, Massachusetts Institute of Technology.

A skimeister award comes from the best combined performance in four skiing events, two Alpine tests, a nine-mile cross country race, and ski jumping.

They don't win many athletic titles at famed M.I.T. where the academic aspect is supreme and anything else is a bit of a shock.

In fact, Clippinger's triumph in the college division test staged at Norwich University is the first major skimeister award in coach Bill Morrison's 10-year M.I.T. experience.

But it didn't surprise Morrison particularly because he's watched and worked with the slender, bearded and somewhat shaggy Clippinger for a couple of years.

As a matter of fact, the same dogged, determined progress that earned Cambridge resident Clippinger the Division II crown is evident in his remarkable classroom campaign.

A Maryland native who was raised in Sudbury and whose parents now reside in Framingham, Clippinger was a recreational or "family" type skier and not among the national merit scholars when he applied to college several years ago.

He was an average student, 2.3

on the 4.0 scale, during two and one half years at the University of Colorado where he didn't even try out for the school's import-dominated ski team.

Like many college students, he became somewhat disenchanted with higher education, spent some time ski bumming, tried studying for a couple of months at Beloit College in Wisconsin, and joined the Army.

Assigned to a mechanized "track" unit in Vietnam, Clippinger was serving in the so-called "Iron Triangle" area 40 miles north of Saigon in early 1969.

"The north had controlled the area earlier but we never saw anybody there. They had just moved out. We had to go out and check the district, visit the checkpoints, and travel through an area laced with mines and booby traps.

"We lost a lot of vehicles. Most of the time, they'd hit a mine, total the tracks, but the guys would get blown up in the air and not many of us were hurt.

"I was driving one day when we hit a 40-pounder. Normally, a bomb that size would do you in. Fortunately, I had sandbags around me.

"I had fractured a heel bone and had some cuts on the legs. I was unconscious for a day and they 'dusted me off,' took me out in a helicopter.

"I was taken to a hospital in Saigon, then to Japan for seven days, and home for six months at Chelsea Naval.

"The heel bone was pretty well shattered. You could see all the little pieces in the X-rays. I was in a cast for four months and hobbled around for another two months."

Discharged in December of 1969, Clippinger tried the ski bumming bit again, applied at M.I.T. and, despite an undistinguished academic history, was accepted.

Now married and majoring in math, he has boosted his marks to an impressive "A" and "B" level, four-plus on the five-point scale, and, at age 26, is planning on graduate school for a teaching degree.

Meanwhile, though not in the best of physical shape, "Clip" went out for soccer and spent the winter of 1970-71 working with Morrison's ski squad.

Fitted for special ski boots to help protect his mangled heel, John did fairly well in alpine events and took up cross country racing but didn't tackle the jumping.

This winter, he added the jumping, moved up a little in the other events, won the skimeister title for the first time in a meet at Franklin Pierce College, and repeated in that multi-school meet at Norwich.

"John has just done it on plain hard work," Morrison said. "I coach soccer, too, he played it the same way—just kept working.

"He's not the greatest in soccer or in any one ski event but he's good and solid at everything he tries. He had just started cross country skiing last year and did a helluva job.

"Then he added jumping this year. The kid is just fearless. And, in our league, he's not the greatest in anything but he's respectable in everything. All on pure hard work.

"I tell you, it's fun to have a kid like that come along. It doesn't happen often but, when it does, you can really enjoy coaching, working with somebody like that.

"I've seen his foot and I really don't know how he can do the things he does. He's helped make this one of our best years."

Community Workshops

Planning workshops are scheduled for students needing assistance in developing proposals for summer projects in community service or field work.

Workshops will be held Wednesday, March 21, noon-2pm; Thursday, March 22, 4-6pm; Tuesday, April 3, 4-6pm; and Thursday, April 5, noon-2pm. All will be held in the Urban Action Office (W20-437).

Workshop leader is Timothy Bird, special assistant in the Provost's office, who will run the sessions in cooperation with the Urban Action program.

The summer projects program was established to encourage student efforts in urban-related projects and broaden educational experience in that area. The program is sponsored jointly by the President's Fund for Community Affairs, the Community Service Fund (CSF) and the Undergraduate Research Opportunities Program (UROP).

Grants for projects are awarded competitively on the basis of written proposals and budgets. Applications for proposals are available in the Information Center (Room 7-111), Urban Action (Room W20-437), Mr. Bird's office (Room 9-416) and Dr. Louis Menand's office (Room 3-234).

Deadline for applications is April 13.

Re-Lamping Aims to Save

Physical Plant has embarked on a new re-lamping program in an effort to improve lighting efficiency and at the same time to reduce the manpower requirements and overall cost of maintaining our lighting system.

Under the new program, fluorescent lamps will be changed on a group rather than a spot basis. In the past, Physical Plant answered individual calls to replace burnt-out lamps. Now they will replace all the lamps in one building at the proper time.

W. H. Combs, Superintendent of Buildings, said, "We keep track of burn-out calls until we find that 80 percent of the lamps in a building are very near to the end of their average life span. Then we go into the building and replace all fluorescent lamps from the basement up. By doing this, we don't have to spend any significant manpower in the building for about four years."

One problem has arisen from this new program—what to do with the bulk quantity of lamps that still have a little life left in them? Physical Plant seeks suggestions on possible uses for the used lamps.



Crocuses, encouraged by the premature springlike warmth, are in bloom in the gardens along the Dorrance and Whitaker Buildings.

—Photo by Margo Foote

Comprehensive, Pre-Paid Health Program Scheduled

(Continued from page 1)

Department.

"We've been looking for some time for a way to extend care to families of faculty, staff and employees," Bishoff said.

Blue Cross-Blue Shield will serve as the insurer for the MIT Health Plan, which will differ from present Blue Cross coverage mainly in its pre-payment and comprehensive features.

"You pay a monthly premium and receive in return comprehensive health care services—including periodic physical examinations, visits to the doctor, diagnostic services such as laboratory and X-ray work and hospitalization," Bishoff said.

"Once you've decided to join the plan," he continued, "you will choose a doctor from the MIT Medical Staff to be your personal physician. Your choice will be limited to physicians in the Medical Department or physicians to whom the Medical Department may refer you."

"Although we'll have 24-hour coverage, we're not going to make house calls," Bishoff explained, "because our doctors believe that when urgent medical care is required people have to be brought to a medical facility where complete diagnostic and emergency services are available."

"Except in case of emergency, you will be limited to hospitals which are affiliated with the plan," he said.

Bishoff said these would be the Mt. Auburn Hospital, Cambridge Hospital and the MIT Infirmary,

for medical and surgical care, the Richardson House section of the Boston Hospital for Women (formerly the Boston Lying-in), for maternity and obstetrical care, and other hospital facilities for special medical cases."

The new plan, Bishoff added, will pay full maternity costs. The present plan covers the full cost of the physician in maternity cases, but pays only \$100 toward the hospital bill.

The MIT Health Plan also will offer part-payment for psychiatric out-patient coverage to family members. The present plan provides part-payment for faculty and staff only, but at a higher level of reimbursement than is provided for in the new plan.

"The primary benefit of the new plan," Bishoff said, "is to insure the availability of high-quality health care for yourself and your family."

"The prepaid feature eliminates financial barriers to medical service when it's needed and enhances the possibility of early detection and treatment of illness."

The Medical Department hopes to have a representative sampling of the MIT community included in the pilot program, he said, and may select some of the participants on this basis.

When the department is ready to enroll subscribers, he said, it will distribute brochures on the new plan to faculty, staff and employees and also will hold a series of informational meetings.

Anyone wanting information in the meantime, Bishoff said, may call his office at 3-1774.

Pass/Fail

Seniors who choose to specify a Pass/Fail grade for an elective subject must notify the Registrar's Office, Room E19-341, no later than Friday, March 23.

3 Wheelmen In 'Criterium'

Three members of the MIT Wheelmen's Club raced in the South Boston Shamrock Criterium on Sunday, March 18, placing first, second and tenth.

They are: Gary Klein, a junior in chemical engineering from Palo Alto, California; Jim Williams, a junior at UMass/Boston; and Peter Chu, a sophomore in electrical engineering from West Columbia, South Carolina.

The Shamrock Criterium, run at Telegraph Hill in South Boston, was a 15.5 mile road race around a half mile track. The MIT Wheelmen raced against some 30 cyclists from the Boston area.

Immunologist Eisen Named

(Continued from page 1)

Dr. Eisen belongs to numerous professional societies, is a member of the National Academy of Science and the American Academy of Arts and Sciences, and is the author of contributions to a number of books and of about 90 professional articles.

Dr. Eisen is married to the former Natalie Aronson. The Eisens have five children.