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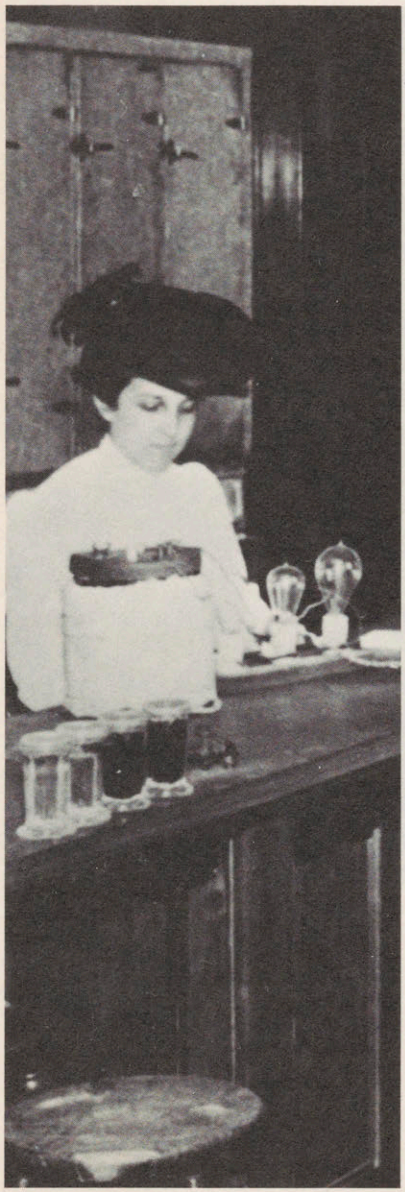
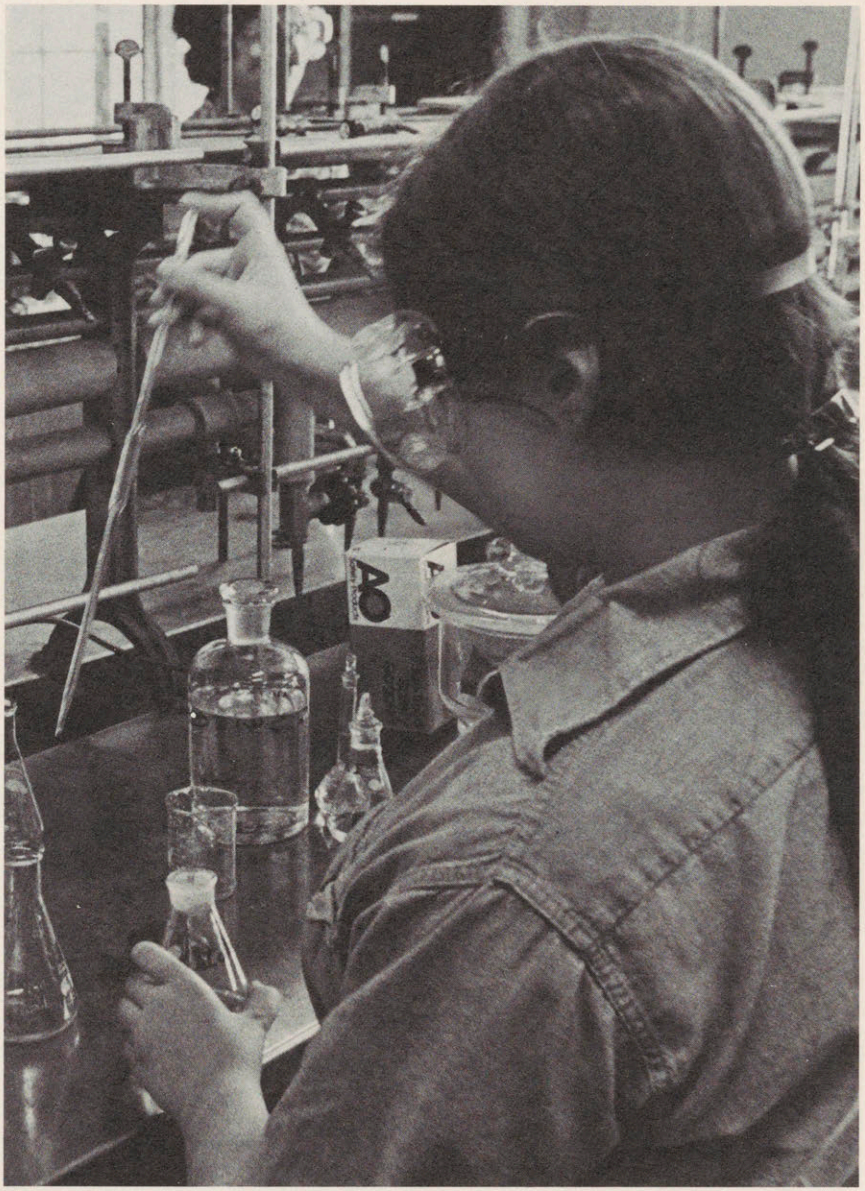
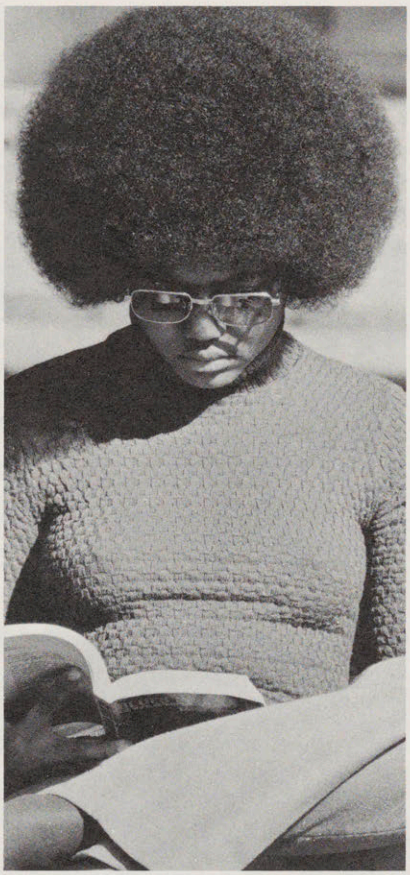
"Massachusetts Institute of Technology: A Place for Women"

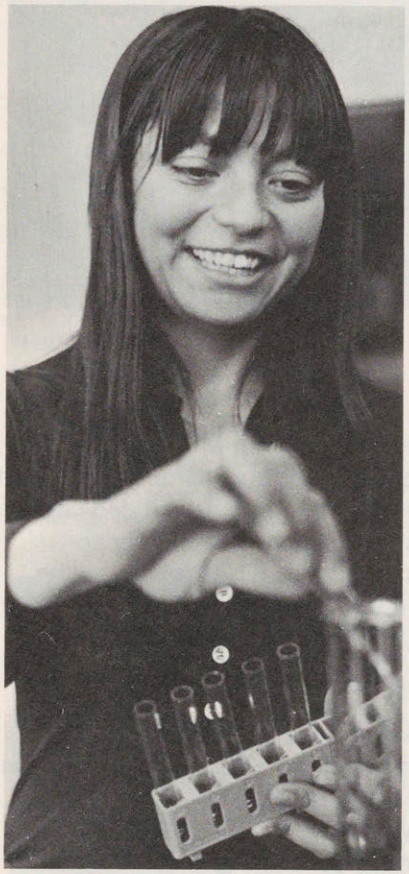
Massachusetts Institute
of Technology

A Place for Women









The many women who have been associated with MIT have had a long and distinguished history since Ellen Swallow came as a student and became a professor 100 years ago. As an institution dedicated to science and technology, MIT has long sought not merely to understand the past, but to design the future. This has led to the development of a flexible, forward-looking university where women as well as men can create, innovate, and help to build a more civilized society.

Whatever your ethnic or social background, whether you are a woman or a man, if you are interested in making a real contribution to technological and social change in our world, consider applying to MIT. You will find people like you here, in engineering, science, humanities, urban studies and planning, architecture, and management, who are determined to meet the challenges of our society's great needs.

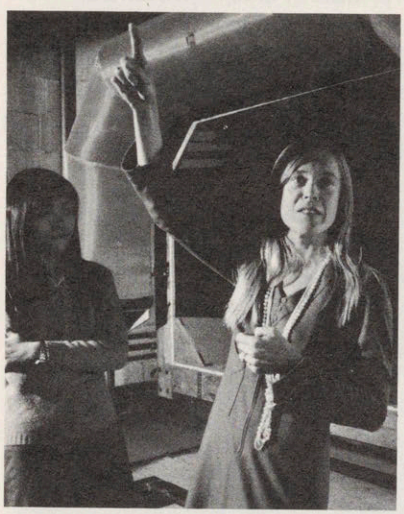
Mary P. Rowe

Mary P. Rowe
Special Assistant to the President and
Chancellor for Women and Work

Women in Science and Technology

"Women at MIT? It's not as far out as you might think. Women have been here for more than 100 years."

"We have a large job cut out for us, as women in this country are continuously being socialized into believing that science is not appropriate for women, and that their place is either in the home or in some branch of the liberal arts. This is a nation-wide problem that will require more than our efforts to combat, and will take years and years. It is probably one of the most worthwhile causes that one could pursue."



Sheila Widnall
Professor
Department of Aeronautics and Astronautics

Women at MIT want more women at MIT, and more women colleagues in the careers we choose. Will you consider coming here? We invite your interest, your questions, and you.

Coed for over a hundred years, MIT has had few undergraduate women until recently. In the past five years, the number of women entering MIT has more than doubled, so there are about seven hundred of us here now. Our efforts to increase this number have drawn support from all the various segments of the MIT community.

Why so many more women now than ten years ago? The appeal of an education in science and technology is greater now. Active participation in our world now relies heavily on at least understanding the forces of science and technology that are on the crest of changes around us. We can do more than understand them; we can develop them, find new uses for them, and direct them toward solving some of the problems of our times.

Career possibilities for women are also much greater now than ten years ago. The recent vigorous campaign by women to have their intellectual and creative talents recognized by the business and legislative communities is succeeding. Young women are changing their expectations; employers are promising equal opportunity, equal pay, and equal status.

Why not be a doctor, engineer, architect, mathematician, chemist, lawyer, politician? These professions have always had some women, but a tiny fraction of the female population with an aptitude for them. There are places for women as professionals in science, architecture, management, design, engineering, law, medicine, politics, and all the other fields you can prepare for here. An increasing number of women are therefore finding MIT is the place for them.

An education at MIT prepares women and men to choose: a career, a family, or both.

MIT's Women Students

"Being a woman at MIT is one of the most beautiful things about being here. Because of the high male-female ratio, one is forced to bring out the strongest points in her personality to build close, friendly relationships with the men and the women while also doing the academic work. The challenge isn't always easy, but it's certainly worthwhile."

Women students come to MIT from all kinds of economic, geographic, educational, and family backgrounds. One-sixth of the undergraduate women are transfer students, one-tenth are from minority groups, and a few each year are from foreign countries; more than forty states in this country are represented. Varied as our histories, our interests carry us to diverse lifestyles. While most of us expect the kind of professional career (and salary) an MIT education makes possible, some of us, at least for now, are just interested in the education. Some are married, some not; some expect to marry, others do not. Being in a minority at MIT and in most of the professions we choose is a situation some of us find challenging and interesting, and others find bothersome or irrelevant.

Beyond the issues connected with being a woman here, we do share a particular kind of educational experience by virtue of being at MIT. MIT emphasizes science and technology rather than the liberal arts. Not that MIT doesn't offer liberal arts, it does. But you will run into very few among the eight thousand undergraduate and graduate students and the nearly one thousand professors who don't share the view that all of us need a foundation in science and technology to understand most areas of life in our society, including politics, social problems and the arts.

MIT's focus on physical and natural phenomena creates a special kind of openness toward the activities of the world off campus. While it is possible to bury yourself in a laboratory, it is easy to find courses that involve direct contact with institutions and individuals outside MIT. A number of community-planning students have spent summers working in law-related offices in Massachusetts; at least one undergraduate woman has worked on state legislation

Heather Lechtman
Associate Professor
Department of Humanities

Margaret MacVicar
Associate Professor
Department of Physics
Director
Undergraduate Research
Opportunities Program

Carola Eisenberg
Dean for Student Affairs

Suzanne Berger
Professor
Department of Political Science

in conjunction with the National Organization for Women (NOW). Opportunities abound for real-world applications of studies in such areas as ecology, communications, architecture, and social patterns. For many, teaching provides another way of getting a "hands-on" sense of course work. On a volunteer basis, MIT students work with elementary and secondary school students in such programs as Tutoring Plus, Upward Bound, and the High School Studies Program. There is a regular flow of MIT people off the campus to work on projects for which their studies here train them, and non-MIT people on to the campus as special students or participants in a particular MIT activity.

Mildred Dresselhaus
Professor
Department of Electrical Engineering

Academic Choices

"There are as many ways of getting through MIT as there are people here."

At MIT you can major in departments and fields spanning such topics as ocean engineering, physics, nutrition, political science, mathematics, biology, music, and philosophy. Although the Institute is organized into five schools – Science, Engineering, Humanities and Social Science, Management, and Architecture and Urban Planning – you can arrange interdisciplinary programs across the traditional boundaries of the schools and the departments. The same general attitude of flexibility appears in the reciprocal agreement MIT has with Harvard and Wellesley to share facilities when students need or want to. With little administrative bother, any MIT student can take classes at Wellesley; upperclassmen have Harvard available on a more restricted basis if they cannot find a subject they want here.

" At least they can't call women here dumb broads. And when there are more women at the Institute, and/or when a few gentle reminders are given to the chauvinist offenders, the offenses will probably disappear. Women, if a professor makes a sexist remark, tell him – he probably knows not what he does."

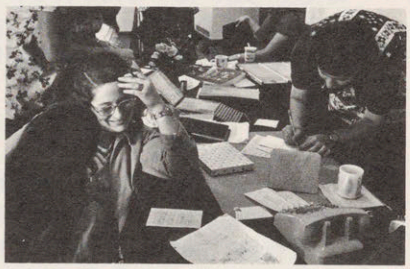
At present, the largest group (47%) of women here major in the School of Science, and most of these are in biology or mathematics. The next highest number major in the School of Engineering, with the majority choosing electrical engineering. Fewer women are enrolled in the Schools of Architecture and Planning, Humanities and Social Science, and Management.

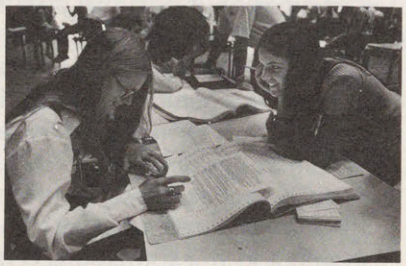
"If you're looking for equality, this is the place. Nobody is going to give you special treatment because you're a woman. If you want something, go work for it."

Recent sociological changes affecting women may well influence their choice of a field; we have no way of knowing what women here five years from now will choose. First-year students, because most of them are not yet committed to a specific major, are excluded from the distribution figures given here. Many who come to MIT with definite fields in mind choose another after learning about alternatives. Engineering is a striking example of a profession few women anticipate entering but many subsequently decide to pursue. Contrary to a popular misconception, the activities of an engineer are far more intellectual than mechanical. The training we missed by being shuffled to home economics courses while our male classmates took shop does not hinder our possibilities for achieving excellence in any of the many fields encompassed by engineering.

"Pass/fail is a lesson in self-evaluation. It is hard if you feel the need for a second party to tell you what you know or don't know, or if you need an A to prove you know something. Having to evaluate my own work for a year has been hard in some ways, easy in others, and worthwhile."

A large campus with sophisticated facilities, MIT nonetheless has an intimacy and informality that are very supportive of individual needs and interests. For example, to ease the transition from high school to MIT and to give students a chance to experiment with the academic and nonacademic sides of the Institute, the faculty agreed to grade freshmen strictly on a pass/fail basis; and the fail grades, when given, are for internal use only. Being admitted here means MIT is confident you can do the work, and you have some time to find out you can if you need it.





"If you're here, you know you're moderately smart, and so is everyone else. You won't either snow people with your brilliance or be regarded as different or strange because you're intelligent. It's taken for granted that you don't have to be perfect, either, or great at everything – if that were the case the Institute would be empty."

If an education involving math and the sciences is what you want, start on it as early as you can. MIT requires freshmen to have at least a year each of physics and chemistry, and math through trigonometry; transfer students are expected to have the same, and are better off if they have had some college math and science. If you have not been able to take one of the required courses, you may still be admitted here, provided you take the missing subject in summer school.

Although not required, your taking calculus and advanced science would give you some exposure to areas included in MIT's general degree requirements. You should seriously consider taking these subjects at either your school or a nearby college during the regular school year or the summer.

Minority group students admitted to MIT who lack some of the academic background necessary for going through here with any comfort are invited to attend a special summer program, Interphase. This program offers courses in physics, math, and the humanities. Participation is optional, and no fees are charged.

While intelligence is indispensable to being admitted here, you'd have to be a genius to be admitted on intelligence alone. Your independence, determination, creativity, and interests count a good deal in admissions decisions. Your extracurricular activities, recommendations, grades, personal interview, and College Board scores will all be considered together. And, because it may not be obvious, we should add the admissions criteria and process are the same for women as for men.

Seeing the campus and talking with the people here may help you decide whether MIT is the place for you. On your visit, take a campus tour, and perhaps have an interview with someone in the Admissions Office. All applicants are referred to an MIT graduate near their homes, and you will have the interview with this person if you

can't have it on campus. Although the interview is a required part of your application, it is intended to be informative for you, too. Don't hesitate to ask about touchy issues, including women at MIT; we need to know more about what you need to know, and about what we can do to enhance women's opportunities.

Application materials must include the results of the Scholastic Aptitude Tests (SAT's) and three Achievement tests, which you will have to take by January of your senior year, at the latest. The Achievement tests must include either Math Level I or Math Level II; either Chemistry or Physics (Biology may not be substituted); and English Composition, American History, or European History and World Cultures.

MIT considers only the highest scores you receive on these, so consider getting some practice taking them during your junior year. You stand nothing to lose, and many discover there is a knack to taking them. It is also a good idea to take Achievement tests in Chemistry or Physics as soon as you have completed the course, because forgetting is easy. Except for the January test scores, all application materials are due January 1. Admissions decisions are made by mid-April.

Financial Aid

Feel no compunctions about applying for financial aid if your parents don't feel they can afford the full cost of your coming here. About one-half of MIT's undergraduates receive some sort of financial aid, and an application for it in no way affects the admission decision. There is no getting around the fact that an MIT education is expensive, but it's also an extremely good investment.

Financial aid is usually distributed in a package that includes scholarship and loan funds as well as the option of seeking a part-time job on campus. Job possibilities are quite diverse. They include computer programming, doing research for a professor, and such standard fare as library work and dining service chores.

"Institute jobs are pretty easy to come by and the starting pay is pretty good. Mechanical jobs like library or dining staff can even be enjoyable because there are other students working with you."

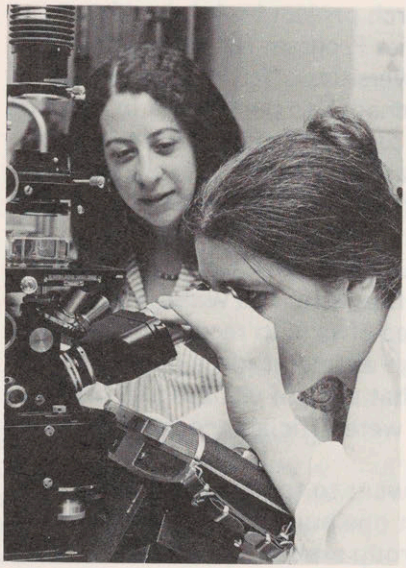
Your opportunities for supplementing your income are not limited to financial aid from MIT. It is likely you, like many MIT undergraduates, will discover jobs over vacations that will pay you well for the skills you have acquired here; considerably better than if you did, for example, temporary clerical work. You may also find these jobs interesting.

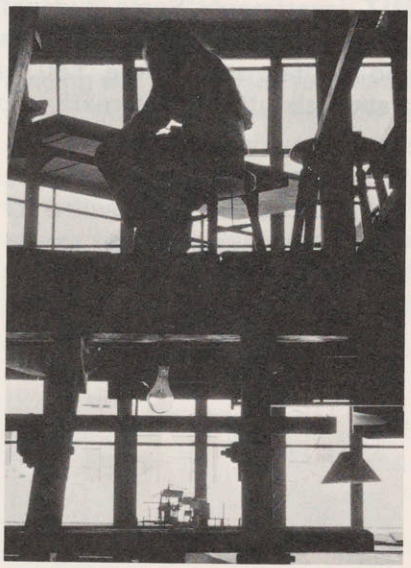
Most of the major fields at MIT will prepare you to take a challenging and interesting job that pays you handsomely. With relatively few women seeking jobs as engineers nationwide, industry is willing to pay a premium to attract the best graduates. MIT women are welcomed, too, by the country's medical and business schools. Of women graduating with a bachelor's degree from MIT, all but one or two each year take jobs or go on to further study. Many of us feel the extra opportunity an MIT education gives us to get a good job compensates for the expense involved in getting an education here.

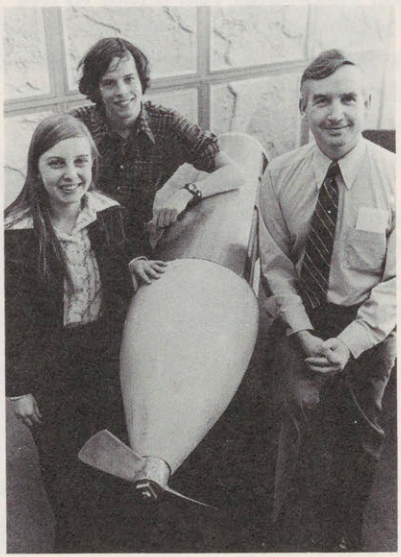
"UROP is the only way to work thirty hours a week for six hours of credit and really enjoy it."

You can get into the thick of a research project by joining the Undergraduate Research Opportunities Program (UROP). A very special kind of program that few universities offer, it gives undergraduates — including freshmen — a chance to participate in research on or off the campus, for pay or for pass/fail credit, with a faculty member or the research staff of a nearby company. If you have a specific project in mind, UROP can help you find an advisor, facilities, and possibly funds to develop it. If not, UROP has listings of projects in search of MIT undergraduate research assistants. Begun in 1969, UROP has received such enthusiastic and widespread participation that it has, so far, eluded efforts to record how many undergraduates are involved, although estimates place participation at over fifty percent. We do know that a lot of us have just carried on with our projects long after they were officially completed.

There are other choices, too, if you want to try a nontraditional approach to first-year studies. About one hundred freshmen every year join the Experimental Study Group and the Concourse Program. Each of these has a faculty nucleus representing a number of MIT departments. Some students find that the faculty, course, and grading structures of these programs provide an unusually creative and intimate atmosphere. You may want to write for more information about these alternatives, or check into them if you visit.







Every January MIT breaks loose in the Independent Activities Period. For credit, or fun, and sometimes both, over three-quarters of the students participate in campus-sponsored activities designed specifically for this month by people from all parts of the Institute community — students, faculty and staff. (The other quarter travels, works, stays home, or whatever.) In a recent year you could have studied glass blowing, use of a helicopter rotor as a parachute, Central American volcanoes in Central America, calculus, music criticism, skiing, or any of the five hundred other activities offered. Each year is different. IAP '72 occasioned the beginning of the MIT Women's Forum, which helped focus MIT's increased concern for women on campus and in the professions.

Students with interests that don't seem to be met by the departmental curricula are free to design individualized programs either within a department or for an interdisciplinary degree. For example, some people combine electronics and transportation studies; environmental sciences, psychology and management; electrical engineering and the life sciences; the list is nearly endless. Still others aim to pursue professional degrees in law and medicine after finishing a bachelor's degree here.

Housing

"I preferred McCormick for the simple reason that MIT is mostly men, and an all-women's living group is the best place to get to know some women."

"When I came to MIT, I was not open-minded about fraternities; the biggest mistake a freshman can make during Registration/Orientation week is to exclude any type of living group without having first-hand knowledge."

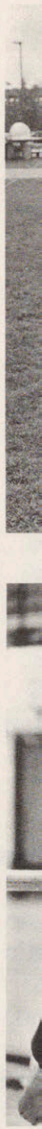
"Coed living is great. Understanding men from the 'social' or personal side helps to ease the psychological jolt of a predominantly male environment. It also lessens the strain some girls feels in the competitive academic sphere of MIT, and takes a lot of the artificiality out of dorm living. The people in my living group are my closest friends — the people I spend most of my time with, who influence my activities, course selection, and what I do in my spare time.

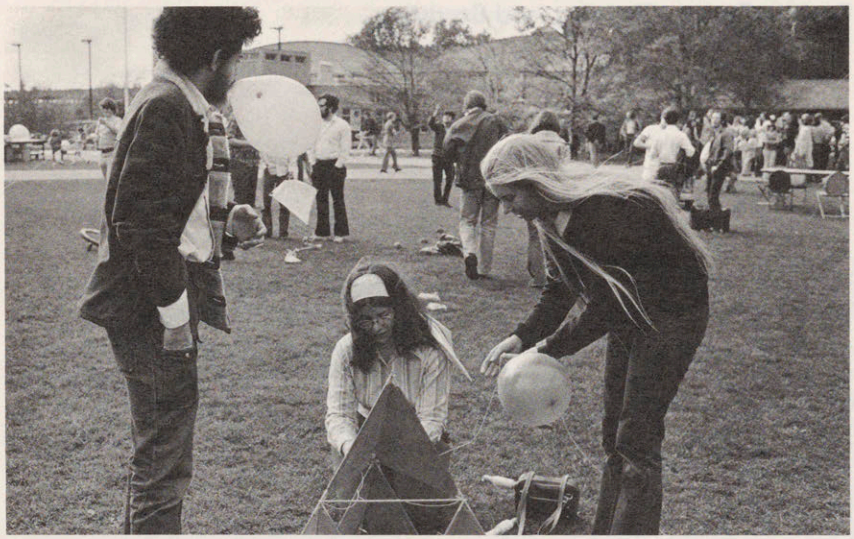
"Living in an apartment just makes me feel I'm closer to the real world. If the kitchen is a mess, it's just my responsibility."

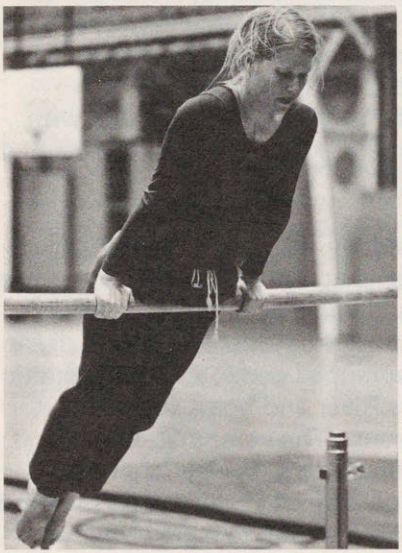
Modern dormitory with complete kitchen facilities in every suite; big, old, elegant Boston mansion with one large table where everyone eats; or any of nine other residences close to MIT in Cambridge and Boston are here for you to choose from. The choices include one all-women's dormitory, four coed dormitories, three coed fraternities, a coed cooperative house, and the coed language houses.

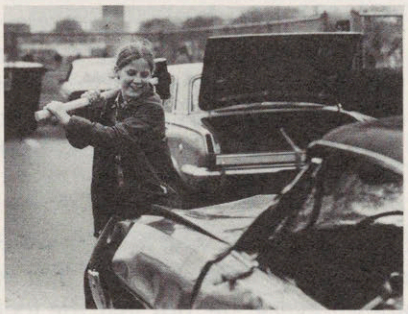
Most likely, you will find your friendships and lifestyles come to center on your living group. The week before fall classes begin gives you time to look around, perhaps find classmates you'd like to live with, and decide which living group best meets your needs and interests. As the upperclass students you will be living with return from summer vacation, you will find their familiarity with MIT and the area a great asset in learning your way around courses, instructors, Cambridge, and Boston.

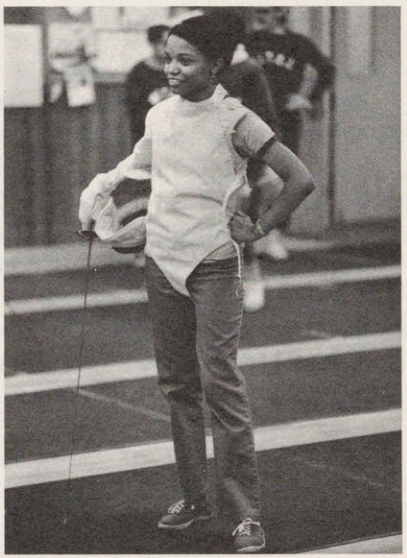
Although all freshmen who aren't living at home are required to live in one of these houses, you are free to move after the first year either to another campus residence or to an apartment. Less than one-quarter of the undergraduates choose to do this.











Besides Eating, Sleeping, and Studying . . .

"There are times when an administration or faculty member seems heavy-handed, and times when you feel isolated and down, with no one to talk to. But people really do care about what's going on with you, and no one is 'off limits' for you to consult or talk with."

You will find MIT a center for continual intellectual and cultural activities; MIT's lectures, seminars, movies, athletics programs, musical and dramatic arts, and its art gallery draw participation from all parts of MIT and the general public. "Community" is a notion taken in a very broad sense at MIT. It encompasses everyone here — students, faculty, staff, their families — as well as members of both the professional and the larger social communities MIT people interact with on and off the campus.

If you walk into MIT's main entrance at noon, it may be dark because a slide show is underway; it may be full of balloons or bubbles, dancers or fencers; a chamber music group may be performing Bach and Mozart quartets, or people may be running between speakers and tape recorders making electronic music with the help of echoes produced in this hundred-foot high, dome-capped space.

"Athletics are for everyone — not just great athletes — so don't be afraid to try even the most exotic sport even if you were a klutz in high school PE."

Sports-lovers as well as people who mostly sit around find, often much to their amazement, that athletics at MIT are fun. Here, sports are for everyone, not just the jocks and winners, and not just the students. The facilities include indoor and outdoor tennis courts, an indoor swimming pool, several well-equipped gyms; spacious athletic fields, an ice-skating rink, the Charles River and boats for sailing and rowing. You can take skiing lessons. The combination of good, unusually convenient facilities, the chance to get away from academic concerns, and the relaxed philosophy of PE instructors toward fun and competition make athletics here special to a great many of us.

"Since coming here, I've joined, with more or less success and for varying periods of time, folkdancing, the MIT dance workshop, the women's tennis team, bridge, a chamber music group, and the Afro-American dance club. If you're interested, it's not hard to get involved."

Another hundred or so extracurricular organizations invite your involvement; and if you feel like getting away, the entertainment and cultural resources of Boston and Cambridge are open to you. Full of ideas, activities, and people to interest, relax or distract you, this environment is accessible, no matter what your budget is or what you are used to. Women may find this particularly appealing,

"This is a great place to go to college. The museums, symphony, restaurants, concerts, and sports events are right out there. After all, what would you expect? The place is swarming with young people from some fifty schools looking for things to do."

"It is especially important to be sure in your own heart that you are not coming to MIT to 'prove something' to yourself or anyone else. Your acceptance here indicates that you are as qualified as anyone else to do the work, and then you are left to take it from there. It is also important, once you come to MIT, that you not sacrifice any of your personal beliefs about yourself and about being a woman, simply because you are a member of a minority. We must feel our strength; otherwise the first hundred years will have been wasted, for there will be no hope of changes in the next hundred."

because institutions and individuals in this area are getting used to seeing women do what was once largely the province of men.

Women at MIT have organized two informal groups whose invited speakers, discussions, and special projects focus on improving the quality of women's lives at the Institute and in the professions. The Association for Women Students gets together every two weeks, and the Women's Forum, a largely nonstudent group, meets weekly. Men, women, undergraduates and graduate students, as well as all types of personnel, including professors, secretaries, and administrators, participate in the meetings.

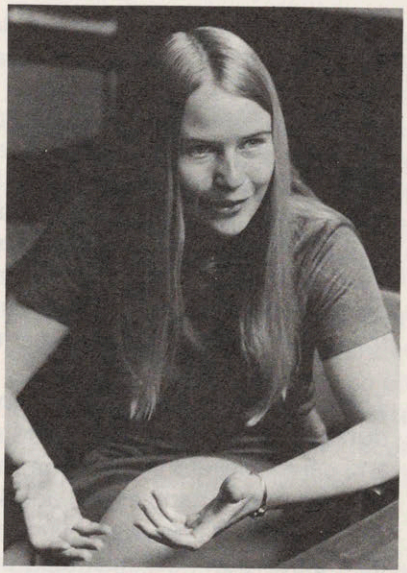
The women's groups have recently suggested changes in the procedures for student, faculty, and staff recruitment; and for hiring and career development. The Institute has responded to recommendations with financial and administrative support. Publication of this booklet is one example of such support; another is the creation of the position now occupied by Mary Rowe, Special Assistant to the President and Chancellor for Women and Work.

For many of us, these recent changes point out the special democracy and intimacy of the MIT community. For women and men, it is a place to study, work, and grow.

After the Bachelor's Degree

MIT women graduates often continue their studies in graduate school, or in professional schools of law and medicine. Others take jobs immediately. Some move away from their original field; others continue to pursue it vigorously. Most importantly, we expect to have choices when we graduate, both in jobs and in life.

Cynthia Bloomquist
MIT S.B. in Interdisciplinary Science
Industrial Liaison Officer, MIT

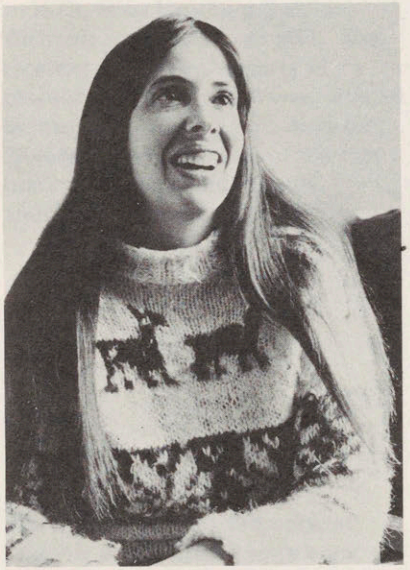


"When I came to MIT, I thought I would major in math. Although my interests changed, I enjoyed studying here, and found I could make a program which would provide what I wanted. My current position offers a unique perspective on MIT, and gives me a feeling for the kinds of challenges facing corporations. I work with people, primarily researchers and managers from companies which are members of the Liaison Program and MIT professors. It's exciting to be able to help them discover each other's work and to aid their research efforts."

Shirley Jackson
MIT Ph.D. and S.B. in Physics
Research Associate
Fermi National Accelerator Laboratory

"For me, an MIT education has proven to be an effective problem-solving background when used in a conscientiously applied program of disciplined work and regular professional activity."

Bonny Kellermann
MIT S.B. in Political Science
University of Chicago M.A. in Social Work
Assistant to the Dean for Student Affairs, MIT



"I came to MIT planning to pursue a career in math or science. By sophomore year my interests had changed and I decided to do something more directly people-related. I changed my major four times while at MIT and then again for graduate work. Somewhat to my surprise I found the rigorous background of MIT to be extremely helpful even in the field of social work. I find my present position a good way to combine the technological environment I enjoy with my interest in working with people."

Chriss Jansen
MIT Ph.D., S.M. and S.B. in Metallurgy and Materials Science
Group Leader, Ventron Corporation

"The broad background I got at MIT has served me well. I'm enjoying technical management in a chemical company. In order to do this my husband, two kids, and I have experimented with less traditional ways of combining two active careers with our family life."

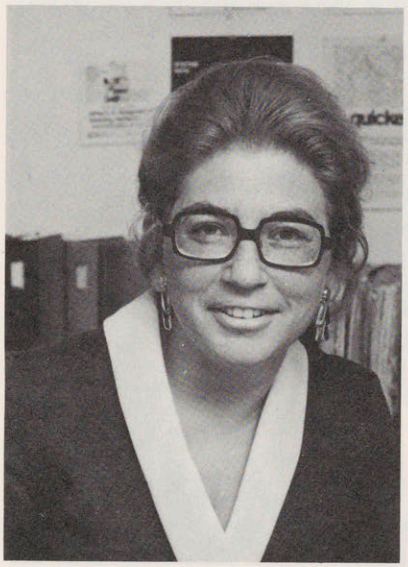
Debbie Judelson
MIT S.B. in Metallurgy and Materials Science
Graduate of the Harvard-MIT Joint Program in Health Sciences and Technology
M.D., Harvard Medical School

"I had never heard of metallurgy and materials science until I came to MIT. I liked it, studied it, and eventually it led into the field of biomedical research. Now my interest has shifted to cardiology and I intend to practice internal medicine with a subspecialty in that field."

Lita Nelsen
MIT S.M. and S.B. in Chemical Engineering
Technology Manager
Millipore Corporation

" I've been very fortunate with my choice of career. It has offered me tremendous variety in the work I do, from research to marketing, and from water pollution to artificial kidneys. Right now I'm Technology Manager for a line of membrane products. Although I've had to make choices, I've been forced to give up very little. I have an interesting career and a family. It's important for people to know that a woman — like a man — can combine a demanding career and a family (*if* she chooses the right spouse!)."

Susan Schur
MIT S.M. and S.B. in Metallurgy
President, Susan E. Schur (Advertising)
President, Association of MIT Alumnae



"After working as a metallurgist, doing commercial consulting work and supervising government contracts, I became a full-time in-house technical consultant for a New York advertising agency. I then founded my own ad agency in Boston. The agency handles scientific, engineering, and industrial accounts. In this way, I've been able to combine my technical and business background and experience, with my interest in the creative arts. It's extremely interesting work...and it provides a keen sense of satisfaction and challenge, since I actively participate in and influence the growth of many companies."

In 1873, Ellen Henrietta Swallow Richards graduated from MIT. She received a Bachelor's degree in chemistry. This booklet was initiated by members of the Association for Women Students as part of the celebration of the one-hundredth anniversary of that event.

The people who put this booklet together and revised it since are:

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(The Admissions Office will field any of your requests for specific information about housing, minority groups, financial aid, special programs, etc.)

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