

## "No grades," said p/f report

By Kenneth Snow

"One of the major purposes of pass/fail was to relieve the anxiety and sense of pressure felt by incoming MIT students during the year of transition from secondary school to work in a university of high quality and high expertise. It was also hoped to develop in each student a more mature motivation for his university education and a more active, expressive involvement in his studies; and to give him a sense of freedom to make a wider choice in the allocation of his time among his subjects when a topic within any one of them especially excited him. These attitudes, it was felt, might persist throughout the upperclass years," said a report to the faculty on the four year trial of freshman pass/fail grading submitted by the Com-

mittee on Evaluation of Freshman Performance [CEFP] on February 1, 1972.

Last week, the Committee on Educational Policy [CEP] considered major changes in the pass/fail system. Part of the proposal before the CEP is standardization of hidden grades for all freshmen and sending of grade reports to all freshmen for the spring semester.

The report also stated "That the use of evaluation forms relating to freshman performance in subjects should be continued . . . We recommend that it be made as clear as possible to the freshman that it is in their own best interest first to initiate detailed and thoughtful evaluations, second to ask for more feedback from instructors whose comments are not illuminating, and third to keep a personal file

on all written feedback."

At a faculty meeting in March of 1972, then-Chancellor Paul E. Gray '54 said that the original intent of pass/fail had been to remove the "unnecessary and unproductive" pressure of recorded grades, but not to remove the pressure to adjust to a new environment. The intent had been for the student to have more access to the kind of information that would allow him to assess his own program.

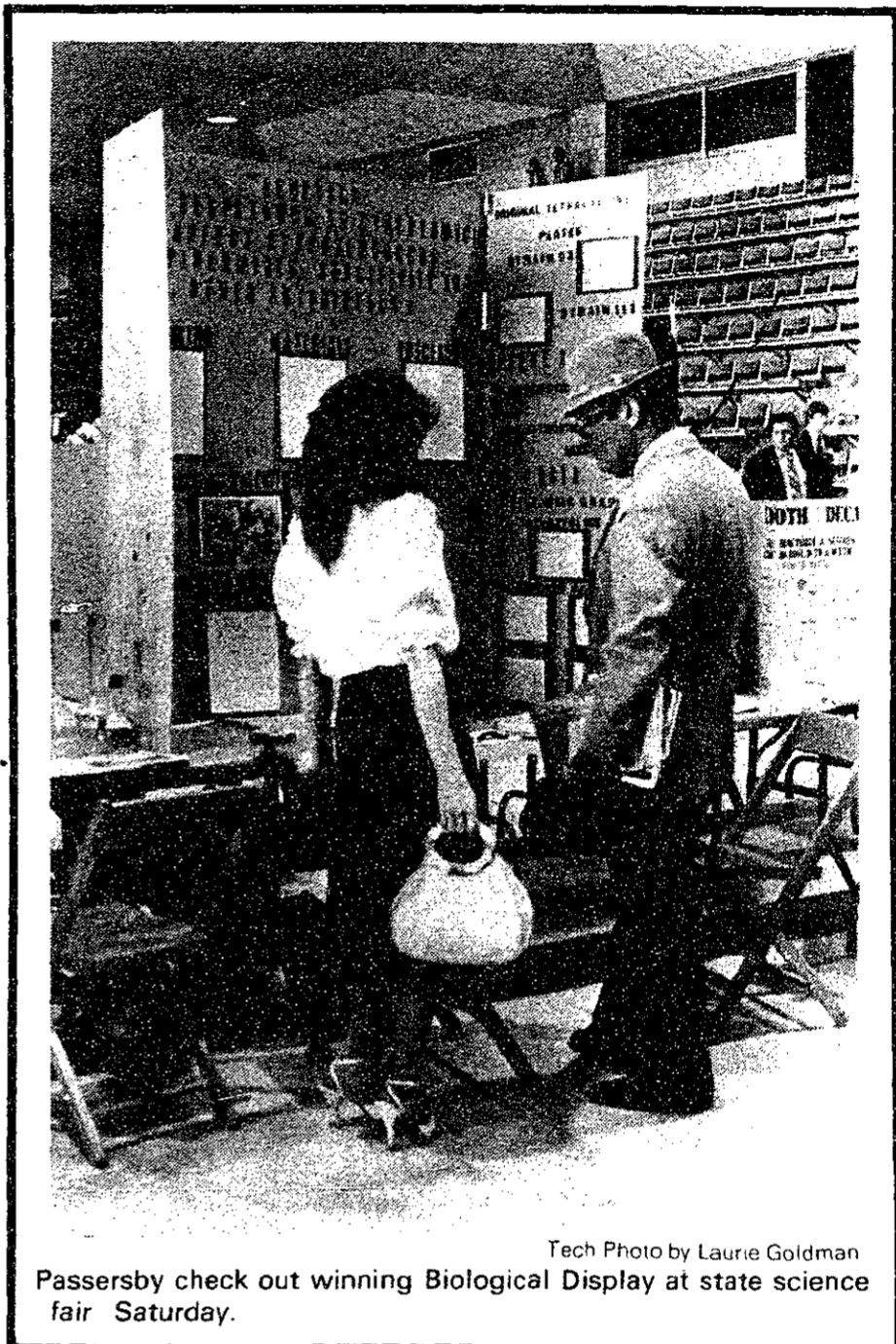
The CEFP report stated, "We call the attention of the faculty to the fact that the transmission of unofficial grades to anyone for any purpose is contrary to the intention and spirit of the pass/fail system."

"We recognize that at the request of students some faculty members are now reporting to medical schools letter grades for certain subjects taken by the students as freshmen. The requests have related mostly but not exclusively to subjects in Biology and Chemistry.

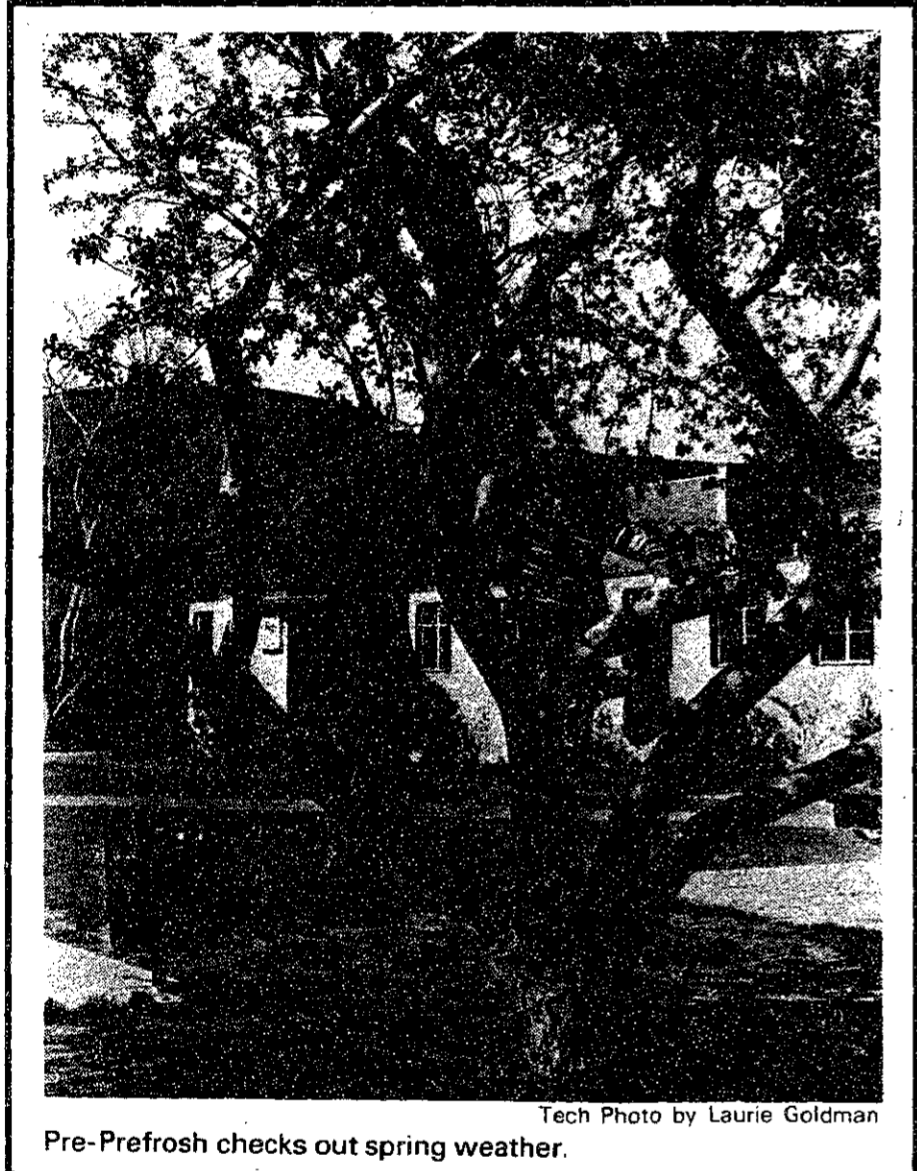
"We believe that even this limited assignment and use of letter grades corrupts the pass/fail or pass/no record system for all students who are not certain when they are freshmen that they will not later apply to medical school. This use of letter grades is inconsistent with the purposes of [the] pass/fail system. The resulting impairment of the system may well affect other freshmen also."

Six of the ten members of the CEFP are still at the Institute: Professors Merton C. Flemings, Arthur D. Kaledin, Arthur P. Mattuck, Jeffrey Steinfeld, Felix M. Villars, and Everett E. Hagen.

A report of the Pass/Fail Committee of March 1972, stated, "there will be in the visible future a hard core of some 50-odd students each year who will be hurt if they do not have these grades available. Many faculty apparently object in principle to this policy, but the students seem to have a more pragmatic view of it. Under the circumstances, we feel that student opinion should be the deciding factor."



Tech Photo by Laurie Goldman  
Passersby check out winning Biological Display at state science fair Saturday.



Tech Photo by Laurie Goldman

Pre-Prefrosh checks out spring weather.

## Black frats seek recognition

By Gene Chang

MIT "has no clear-cut policy" for the six local chapters of national black fraternities and sororities on its campus, according to Associate Dean for Student Affairs Robert Sherwood.

The groups' appearance at the Institute has been quite recent when compared to the founding of their national organizations. Kappa Alpha Psi fraternity, founded at Indiana University in 1911, came to MIT in 1975; Delta Sigma Theta sorority, founded in 1913, did not appear at MIT until 1980.

The Institute has no policy for the recognition of social activity groups, Sherwood said. "The Dean's Office, however, does recognize the fraternities and sororities as service groups. The issue in recognizing them as MIT activities is that the organizations aren't just MIT chapters, but are multi-campus or city-wide chapters."

"Everyone is interested in establishing stronger affiliation between the Dean's Office and the fraternities," said Steve Immerman, Dean's Office Advisor

to Fraternities and Independent Living Groups. "The complexity now is determining what category to consider the organizations . . . either as fraternities or as activity groups."

Michael A. Greer '83, a member of Kappa Alpha Psi, said, "There's no official recognition, but we have been getting cooperation in the past. I see a more workable relationship between us and the administration due to recent strides we've had this term."

One sorority, Alpha Kappa Alpha, recently received recognition as a student activity from the association of Student Activities.

There are presently no plans for any of the fraternities or sororities to establish their own living groups. Members said transportation concerns are a major obstacle, since the groups draw students from campuses around Boston.

The fraternities and sororities are concerned MIT students are unaware of their existence. Alpha Kappa Alpha's Diana Abney said, "Overall, I think that the students are basically uninformed about us. It tends to be the case in

northern colleges and universities, eastern [schools] specifically, that people just don't know very much about black fraternities and sororities. People don't see us very often and are a little bit uninformed."

Membership in some chapters is limited to students at area colleges, while others are open to the whole Boston community. Membership is open to members of all races, and ranges from 20 to 40 persons in each chapter.

Rush for the fraternities and sororities is usually held in September and sometimes in January through an information-social meeting, where interested candidates are invited to meet with current members and find out about the history, purpose and activities of the group. According to Greer, "We look for people with a pleasant personality, high goals and a basic drive to achieve."

Black fraternities on the MIT campus are Alpha Phi Alpha, Kappa Alpha Psi, Omega Psi Phi, and Phi Beta Sigma. The black sororities at MIT are Alpha Kappa Alpha and Delta Sigma Theta.

## Visiting Committee reviews Dean

By Andrew Robbins

"The Office of Dean for Student Affairs (ODSA) as a whole seems better organized than previously and ably staffed," according to the MIT Corporation Visiting Committee on Student Affairs. In the report of their May 1981 meeting, obtained last week, the committee focused on the Undergraduate Academic Support Office (UASO), but also commented on the ODSA in general and responds to student feedback.

"The Institute (ODSA) should more explicitly recognize the socialization process as a long term on going process in which many offices and individuals play a part," stated one committee member. "Freshman orientation is a part of this process," he continued, but the ODSA does not continue the process "when it comes time [for a student] to choose or change a major and to decide on a job or graduate school."

The Committee recommended the Dean and ODSA staff members meet regularly with students and student groups.

The Committee also reported the recent reorganization of the

ODSA "provides a good structure to complement students' participation in the academic program."

The Committee presented two recommendations to the MIT administration. It suggested "that the administration consider having the Dean report to the Provost." The Dean presently reports to the Vice President in the Office of the President; all other Deans report to the Provost. The Committee also recommended the administration place the Dean on the Committee on Educational Policy (CEP).

When the Visiting Committee met at MIT last May, an evening was set aside for "an open presentation of issues by the students." Approximately 60 students attended that session, and commented on the lack of ODSA contact with students, overcrowded dormitories, mandatory commons, escalating tuition, and academic pace. The Committee listed those issues in an appendix to its report, and one Committee member wrote an additional appendix "as a result of the interaction with students."

(Please turn to page 2)

## inside

An MIT professor's company moves closer to taking control of Boston's Channel 7 — page 2.

Gubernatorial candidate Thomas P. O'Neill III address educational and economic issues — page 7.

Presidential science advisor George Jay Keyworth discusses science policy and the Reagan White House — page 9.

New England Conservatory Symphony is worth the walk — page 13.

# RKO loses WNAC

Charles D. Rubin

New England Television Corp. (NETV), a local company involved in thirteen years of litigation in an attempt to obtain control over Boston's Channel 7, finally won their case on April 19, when the US Supreme Court refused to review the Federal Communications Commission (FCC) revocation of RKO General's operating license.

The president of NETV is MIT Professor of Electrical Engineering and Computer Science Edward Fredkin, who is on temporary leave from the department. Jerome B. Wiesner, MIT President Emeritus, is also a member of the corporation's board of directors.

RKO General, a subsidiary of General Tire and Rubber Company had its operating license revoked on June 6, 1980. It appealed to the US Court of Appeals, which reaffirmed to FCC's decision on December 4, 1981. On February 4, the decision was appealed to the Supreme Court.

## Committee reviews Dean

(Continued from page 1)

In their analysis of the Undergraduate Academic Support Office (UASO), the Committee emphasized that "the UASO must not lose its credibility with the rest of the Institute by trying to do too much and not doing a good job on anything." The report stated that any UASO academic study should be cosponsored by the Provost's office and should attract faculty participation.

Prior to the meeting, Dean for Student Affairs Shirley M. McBay prepared a report for the Committee which contained several questions "relating to the potential role of the UASO." These questions ranged from "Should UASO and the various other non-departmental programs try to work more closely together to coordinate schedules and activities and to avoid any duplication of efforts?" to "What additional expertise should be added to the UASO staff to enable it to carry out an expanded role in academic support, if such a role is deemed appropriate?"

The Committee endorsed "the concepts presented" in all the Dean's questions, but "was not in a position to evaluate the desirability of providing the financial support required" to carry out her ideas.

The Visiting Committee on Student Affairs is one of many visiting committees that operate as advisory groups to the MIT Corporation. Each committee focuses its interest on the operation of a single department. The Visiting Committee on Student

RKO General, which now operates Channel 7 under the call letters WNAC-TV, will be the third television station in the country — and the second in Boston alone — to have its license revoked.

Fredkin has made it clear that when NETV goes on the air as WNEV-TV, a major policy change will be evident in the treatment of minority groups, both in what goes on the air and in who is trained and hired. Approximately 28 percent of NETV's owners belong to minority groups.

Fredkin refused to comment to the *Boston Globe* on job security for the 280 persons presently employed at Channel 7 until he holds further talks with RKO General.

Court and FCC appeals by Atlantic Television Corp., another Boston business group seeking to become an applicant, are still pending. Fredkin, however, did not see this as a major concern, and hopes to start operations this summer or early next fall.

Affairs periodically observes and advised the operation of the ODSA. The Committee last visited the Institute in October, 1978.

## Glasses: You don't always get what the doctor ordered

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By SUSAN V. HANDS

Staff Writer

Getting the right eyeglasses isn't as simple as many consumers think. Eyeglass manufacturing is imprecise, but you don't have to settle for less than the perfect pair.

The Herald American took a doctor's prescription for nearsightedness and astigmatism and ordered identical glasses from eight Boston-area opticians. When the doctor, George Garcia of the Massachusetts Eye and Ear Infirmary, checked the glasses he found:

- No two pairs were the same.
- Only one pair matched the prescription perfectly, although four others fell within acceptable tolerances.

- One pair was flagrantly wrong: two others were wrong enough to affect vision slightly.

In the Herald American's sample of eight pairs, five were acceptable to Dr. Garcia, **although only one matched the prescription perfectly.** The two pairs that were slightly wrong had no discernible effect on the wearer's vision. The same was true for the rejected glasses, although Garcia said these would hamper the vision eventually.

The cheapest glasses, made by apprentices at The Optique, were also the furthest off. **Yet the second-cheapest pair, made by technicians in the central lab of the Community Opticians chain, were the only perfect match.**

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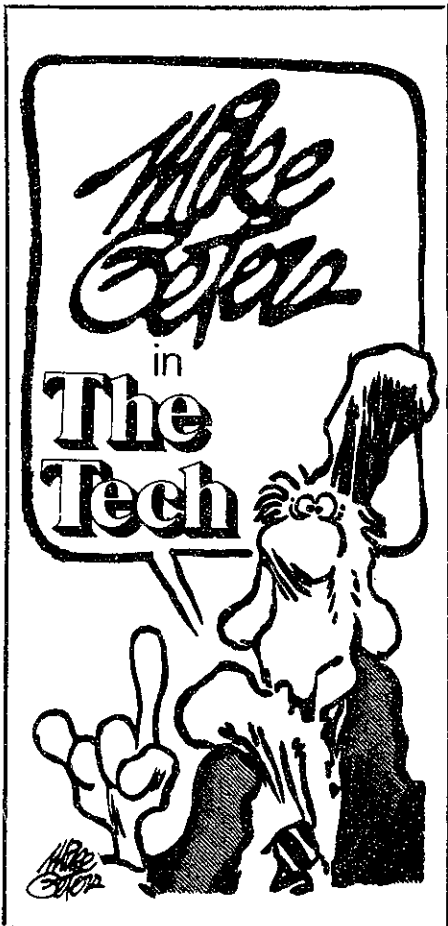
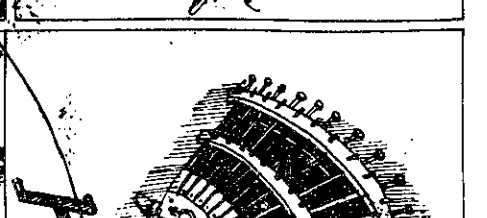
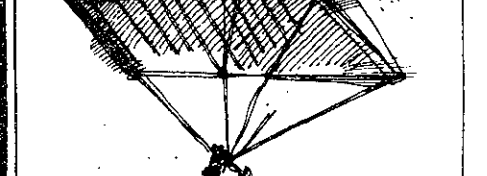
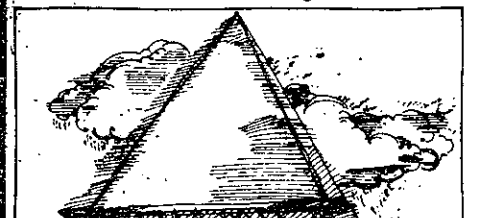
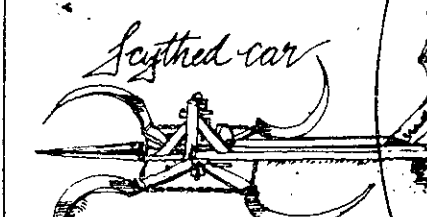
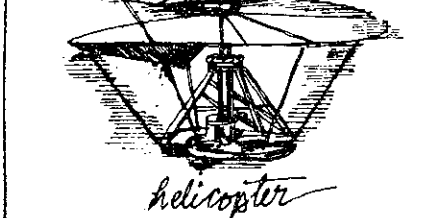
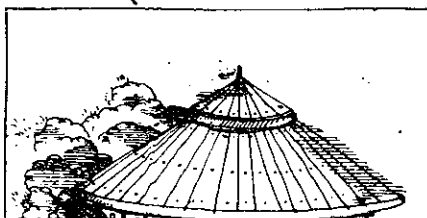


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# news roundup

## World

**Argentine cruiser damaged by British torpedoes** — The Argentine cruiser General Belgrano was severely damaged Sunday by torpedoes fired from a British submarine 250 miles southwest of the Falkland Islands. A British government statement said the Argentine cruiser "posed a significant threat" to the naval task force enforcing the British blockade of the South Atlantic islands. A peace plane drafted by US Secretary of State Alexander Haig and Peruvian President Fernando Terry was rejected yesterday by Argentina. The General Belgrano, formerly the USS Phoenix, was purchased by Argentina from the United States in 1951; it was the only US ship to survive the Japanese attack on Pearl Harbor in 1941. An Argentine submarine and patrol boat were damaged earlier by the British.

**Militia disperses Polish protesters with tear gas, water** Riot police in Warsaw, Poland used tear gas and water cannons to disperse 15,000 Poles demonstrating in support of the independent trade union, Solidarity. Chants of "Down with the junta" and "Free Lech Walesa" were replaced by cries of "Gestapo" in the streets of the Polish capital as militiamen arrested demonstrators.

**Reagan to sell arms to Jordan** — President Ronald W. Reagan announced yesterday the planned sale of F-5G fighter planes and Stinger anti-aircraft missiles to Jordan. The sale will proceed unless Congress vetoes the plan.

## Nation

**Exxon quits synthetic fuel project** — The Exxon Corporation is withdrawing from the Colony shale oil project in Colorado, the company announced Sunday. Exxon has a sixty percent share of the \$5 billion project. Tosco Corporation, Exxon's partner in the venture said it "cannot prudently" continue the project alone. Exxon blamed increasing costs for its action.

**NASA budget 25 percent military** — A report prepared for Senator William Proxmire (D-WI) by the General Accounting Office said about one-fourth the budget of the National Aeronautics and Space Administration supports military programs. NASA Administrator James M. Beggs will testify before the Senate Appropriations Committee Wednesday, and Proxmire indicated he will address the issue of increased militarization of space research at the expense of civilian science and technology.

**World's Fair opens in Knoxville** — 87,659 people attended the opening day of the 1982 World Fair at Knoxville, Tennessee, Saturday, but organizers were disappointed with Sunday's turnout of only about 30,000. Officials remain confident, however, that 11 million people will visit the \$173 million fair before it closes in late October.

**Marijuana arrest nabs \$9 million in pot** — Four persons, including three from the Boston area, were arrested in Farmingdale, New York, Sunday as they were allegedly loading seven tons of marijuana into a truck. Police staked out the warehouse holding the marijuana for 24 hours before making the arrests.

## Local

**Gypsy moths hotline in place** — Massachusetts Environmental Affairs Secretary John Bewick is expected to announce a new gypsy moth hotline to aid residents beginning this week. The moths are expected to destroy 1.5 million acres of trees in Massachusetts this year.

## Sports

**Lakers take Western Conference semifinals; Celtics, Sixers, Sonics lead series** — The Los Angeles Lakers advanced to the Western Conference finals in the National Basketball Association playoffs. The Boston Celtics, Philadelphia Seventy-Sixers, and Seattle SuperSonics all hold 3-1 leads in their best-of-seven series.

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# Student voices need to be heard

Editorial

## Pass/fail must not be a sacrificial lamb

The Committee on Educational Policy's (CEP) attempts to revise the freshman pass/fail system are well-intentioned. Instead of sustaining MIT's commitment to innovative education by instituting a more useful system of freshman evaluation than simple letter grades, however, the CEP has just driven another nail into the coffin of freshman pass/fail.

The current proposal would institutionalize hidden grades by putting them on an unofficial grade report distributed at the end of the semester. The CEP should rid the freshman year of these unnecessary, harmful afterthoughts that have weakened MIT's pass/fail system. If MIT is truly committed to its pass/fail experiment, hidden grades should be eliminated entirely.

There were several reasons for eliminating freshman grades originally. One was to ease adjustment to MIT's challenging environment. Moving away from arbitrary grades and replacing them with substantive evaluations was designed to give students a personalized assessment of their performance that single letter grades do not provide.

Formal hidden grades will increase pressure on MIT freshmen. Many freshmen, aware of the difficulty of gaining admission to selective graduate schools, will not be fooled by the CEP's assertion that hidden grades will never be released outside of MIT. When other schools realize MIT does not really have a pass/fail freshman year, they may demand release of freshman grades. Students who believed they were on pass/fail would in effect be placed on grades retroactively. Whether they did well or not, their decision to release grades will seemingly be based on their freshmen performance.

The argument that concrete A-F freshman grades are essential to admission to graduate or professional school is not valid. Almost all such schools are satisfied with MIT's certification of pass or fail. The one medical school in the country that requests them — Johns Hopkins University — would have to relax its rules, or forego the possibility of admitting MIT students. The MIT Administration should have confidence in the qualifications of its student.

Hidden freshman grades are not a needed precursor to sophomore performance. The CEP's allusions to grade-shocked sophomores, who have pleaded for traditional grades, are unsubstantiated. Their anecdotes should not ruin MIT's successful pass/fail experiment.

There are several ways of improving the current freshman grading system to help students learn course material. These changes would place some of the burden for improving undergraduate performance on the MIT faculty — not always renowned for their interaction with students.

The first step is to revamp the freshmen advising system. Advisors get no credit or recognition for advising freshmen; they have no incentive to do their jobs well. The faculty should appoint an *ad hoc* committee to investigate this essential aspect of student life.

The current freshman evaluation forms do need revision. The CEP argues that the current evaluation system does not work because no one completes the forms. Eliminating the forms entirely, and imposing grades instead, is analogous to throwing the baby out with the bath water: the forms are not returned, so get rid of the forms. The solution to the problem is to require freshmen to turn in evaluations or receive an incomplete in the course. The entire blame for this problem may not be placed on students, however; faculty members fail to fill out forms, too. They should be required to turn in evaluations or else face the same penalty they would face if they forgot to turn in grades for upperclassmen. Hidden grades should not supplant the in-depth evaluations pass/fail was designed to elicit, and MIT students who pay \$8,700 tuition bills deserve.

A second way to assist freshmen is to overhaul the MIT curriculum. Rather than nipping away at the edges and adjusting a humanities requirement here or a science distribution course there, the CEP should assess the relevance of core courses to later performance at MIT. Once courses are deemed important, MIT must dedicate more of its resources to teaching such courses well. Professors who can communicate ideas effectively and deliver interesting, understandable lectures should be rewarded, rather than being reminded they have not published anything of note recently. Professors claim freshmen do not learn core courses; the sad fact is that this is as much the instructors' fault as it is the students'.

Pass/fail is a valuable asset to MIT and its students. It must not be sacrificed to solve petty administrative problems.

Editorial

## Speak out on freshman pass/fail

For the past academic year, the Committee on Educational Policy has debated various changes to freshman pass/fail in closed meetings. The CEP and the Student Committee on Educational Policy claim they have solicited student opinions on the proposed changes. Yet at several open SCEP meetings on pass/fail, the CEP deliberations were presented as vague considerations, not as a proposal which would be railroaded into enactment at the end of the semester.

The CEP plans to take final action on the proposal this Thursday, and to present it at the May faculty meeting. The revisions would go into effect next year, taking next year's freshmen somewhat by surprise. The Dean's Office, with these concerns in mind, has not yet printed Chapter 8 of the Freshman Handbook, in case it needs to be rewritten.

Felix M.H. Villars, Chairman of the CEP and of the faculty, claims there is a strong consensus on the CEP in favor of the proposed changes; only details need to be resolved before a vote. Indeed, many of the proposed revisions do not even need full faculty approval, just CEP assent to take effect. The proposal will be rushed to a closed vote before students and outside faculty members consider the merits of their proposal.

Many students, including Undergraduate Association President Ken Segal '83, question the timing of these proposals. Segal noted that he probably could not attend the May faculty meeting because he probably would be taking a final exam at the time. Although the CEP members claim they are interested in student opinions, they are presenting their final proposal at the end of term — just when students are overwhelmed by papers, problem sets and other worries. They believe they are making the right decision; they have debated their proposal for months, and are now ready to present it as a *fait accompli* to future freshmen of MIT.

The Dean's Office claims some freshmen want grades to find out how well they are doing. If so, they too should voice their opinions to the CEP. Nevertheless, grades are an inferior manner of evaluation. A student does not find out how much he has learned from a grade report; grades merely rank students against one another. A more personal method of evaluation is the necessary remedy.

The CEP should be as willing to hear student opinion as they say they are, and in any case cannot truly ignore them. Before coming to a consensus and making a decision, the CEP should allow time for a community-wide debate on their pass/fail plans.

In the mean time, students should not hesitate to contact CEP members; student tuition pays faculty salaries. Make your voice heard on this issue: the names, offices and telephone numbers of CEP members are printed below:

**Chairman**  
Felix M. H. Villars  
Rm. 6-311 253-4843  
**Deputy Chairman**  
Harvey M. Sapolsky  
Rm. E53-467 253-5265  
**Secretary**  
David S. Wiley  
Rm. 4-237 253-1706  
**Dean for Student Affairs**  
Shirley M. McBay  
Rm. 7-133 253-6776  
**Faculty Members**  
Lotte Bailyn  
Rm. E52-586 253-6674  
Glenn A. Berchtold  
Rm. 18-211 253-1829  
Sylvain Bromberger  
Rm. 20D-209 253-2645  
Wilbur B. Cavenport Jr.  
Rm. 35-214 253-2150  
Joseph Ferreira Jr.  
Rm. 3-403 253-7410  
Anthony P. French  
Rm. 6-109 253-4802  
Rae Goodell  
Rm. 14E-310E 253-4069  
Margaret L. A. MacVicar  
Rm. 8-201 253-6261  
Arthur C. Smith  
Rm. 38-444 253-4603

Leon Trilling  
Rm. 37-447 253-7481  
J. Kim Vandiver  
Rm. 5-222 253-4366  
Cynthia G. Wolff  
Rm. 14N-419 253-4454

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Rm. 3-208 253-1971  
Frank E. Perkins  
Rm. 3-234 253-1957  
Constantine B. Simonides  
Rm. 3-209 253-5911

**Student Members**  
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Undergraduate Association  
253-2696

Michael P. Nell  
Graduate Student Council  
253-2195

Therese A. Prisky  
Graduate Student Council  
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Lesley P. Saunders  
Undergraduate Association  
253-2696

James T. Taylor  
Undergraduate Association  
253-2696

Column/

Martin Dickau

## How I abused fresh p/f

I have decided that it is time for me to come out of hiding and confess that I am guilty. Yes, I admit that I am taking advantage of the pass/fail system, as Chairman of the Faculty Felix M. H. Villars has accused many freshmen of doing. However, I must also admit that I do not believe I am "playing games" with the system.

When my friends at other schools heard that the entirety of my freshman year at MIT would be under pass/fail, I was envied a great deal. After all, I would have the golden opportunity to do very little work and get away with it. Apparently, Professor Villars is of the opinion that many freshmen are doing just that.

How am I taking advantage of the fact that I will not have grades on my transcript for all the world to see? First of all, I decided to take an advanced Russian course (actually, two of them) although my high school education certainly was not up to that level. With the thought of pass/fail in my mind, though, I decided to try. As it turned out, I got a good grade in the course and learned quite a bit as well. Now I ask you, is that "playing games" with the system?

As you may have noticed, I also write for the *Tech*. When I was contemplating taking up sports journalism, I worried about how much time I would be able to put into attending games and writing stories. I was assured by the individuals encouraging me to join that I should not be concerned — I was going to be on pass/fail. It turned out that I managed to both do all of my work and write for the *Tech*. Is this also "playing games" with the system? It certainly is taking advantage of pass/fail.

Now there is a push to change the system. It has been proposed that all freshmen receive a hidden grade report along with the Registrar's report. This is supposed to remind freshmen that their grades are being kept and to help ease them into their sophomore year.

Whether this will have any effect on the students remains to be seen. All freshmen realize that they are not on a true pass/fail system as it is. Reporting the hidden grades will only add pressure, both from the student himself and from his parents, to do better.

If this change means that the student will have to put more time into his work, that extra time has to come from someplace. What will suffer will be the activities such as sports, intercollegiate and intramural, papers, and clubs. Esoteric courses, especially those in the Humanities and related departments, will also lose enrollment.

Perhaps the proposed changes will succeed in getting freshmen to spend six hours on a problem set instead of five. The changes will also end the common practice of putting off work in order to participate in some type of extracurricular event; they will probably make the freshmen more concerned with academics and excelling. It will put back on the pressure that pass/fail is supposed to alleviate. But most importantly, the proposed changes will stop people from taking advantage of the system.

# The Tech

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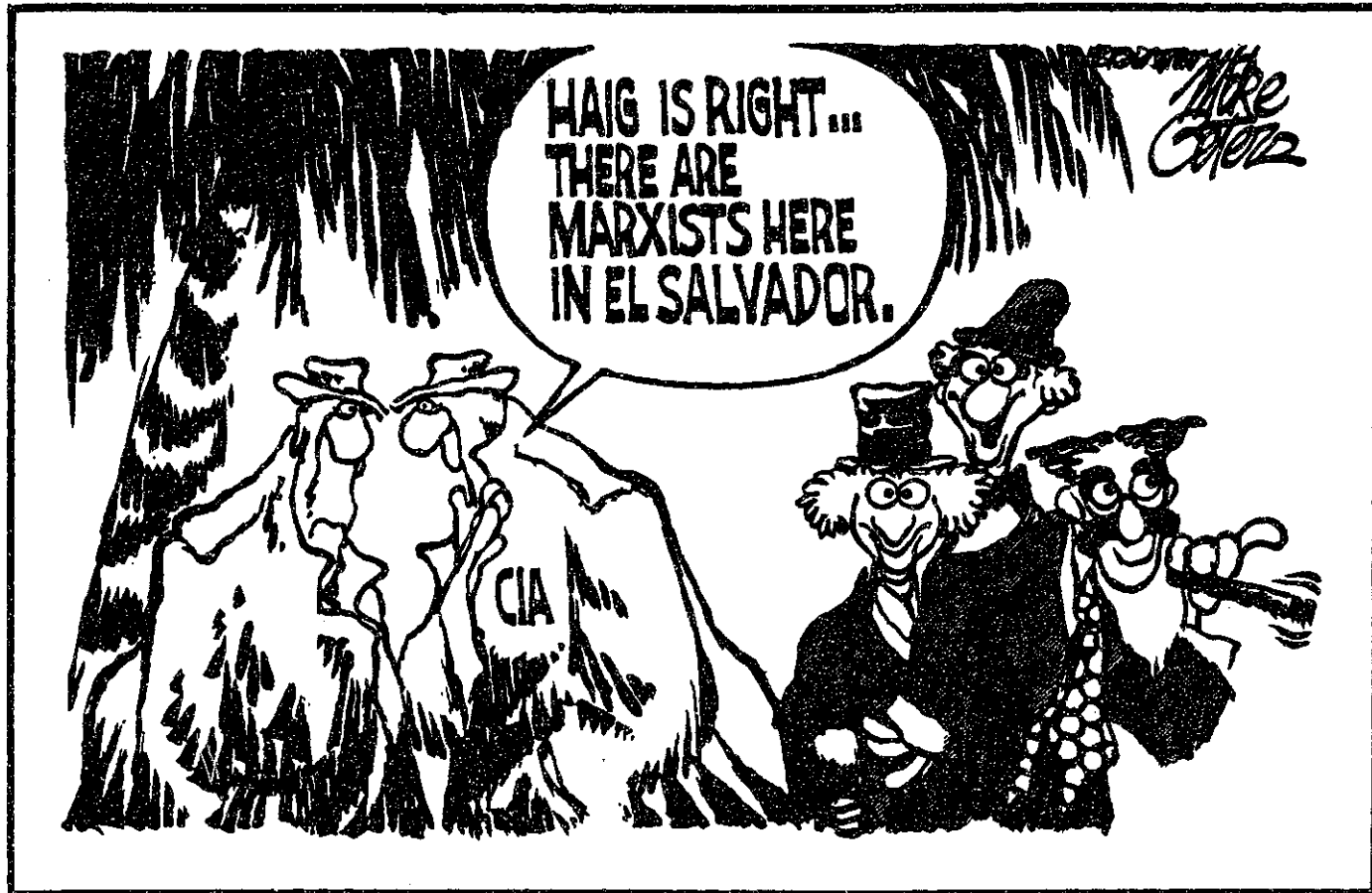
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# opinion

## on future of freshman pass/fail



Column/Richard Epstein

### Med. schools respect pass/fail

An important argument to consider before instituting official hidden grades at MIT is the use graduate and professional schools might make of them. I cannot comment on how all medical schools might feel about this is general but I can present some specific facts.

I have just completed applying to medical school for admission in September. I applied a year early so I have fewer grades than most candidates. In every instance, my interviewers asked me why I had only one year of grades. After telling them that MIT graded on a pass/fail basis for the entire freshman year, the interview continued. Not one school asked me if any other evaluation was available or showed any further interest in the topic. My informal survey in-

cludes a number of prestigious schools. The only exception to this group I know of is Johns Hopkins Medical School which requests the hidden grades or a written evaluation. I, however, did not want to deal with this problem so I did not apply there.

Since no schools pressed me on the freshman grade issue, they did not know that grades would indeed be available, for most of my freshman courses at least, if I wanted to release them. If MIT kept official hidden grades these various schools might well request them in the future. Although disclosure would still be at the discretion of the student, non disclosure could probably be akin to pleading the Fifth Amendment; if you do not want to release them they are obviously bad.

Since ten percent of the students here apply to medical schools and many others apply to other graduate institutions, it is important that the administration look at the reaction of graduate schools to the new availability of freshman grades. To have some of the students behaving as if they are on pass/no-credit and others acting like they are on grades is far from ideal.

An interesting note is under the new system it would be better to fail a course and receive no credit than to get a C and bring a grade point average down.

The Committee on Educational Policy must consider the effects of a revised grading policy on MIT students who apply to graduate school.

Guest Column/Ken Segel

### CEP's proposal won't hurt p/f

Gag me senseless dead! I never thought I would be writing a column for The Tech, but then again, I didn't think it would snow this April either. So here it goes...

You've probably heard that the Committee on Educational Policy (CEP) is, and has for a long time, been considering changes to pass/fail. What you might not know is that Student Committee on Educational Policy (SCEP) has been having meetings to discuss the same issues. On the 16th of March I was present at a meeting attended by about thirty students and half a dozen faculty members. At this meeting, students agreed that pass/fail is important in relieving much of the pressure of freshman year at MIT. Students also said that they would like to have had more meaningful feedback on their performance freshman year, and that they felt the transition from pass/fail to sophomore year grades was too abrupt. The faculty at this meeting said that they are very much in favor of keeping pass/fail for all of freshman year, but they cited problems with the current evaluation system.

As a result of these and other discussions, CEP has arrived at a tentative proposal for changes in the pass/fail system. Pass/fail would be preserved with no per-

manent record being kept other than courses passed. The two major changes would be that evaluation forms fall semester would include letter grades from the professor, and that spring evaluations would be replaced by an internal grade report. These changes will meet the students' desire for more feedback and also help smooth the transition to grades sophomore year.

I feel that it is important to keep pass/fail for both semesters freshman year. For many students, first term courses simply review what they learned in high school. These students would not face completely new material for the first time until second semester. For example, while many students come to MIT thinking  $F=ma$  is intuitively obvious, these same students are blissfully unaware that  $F$  is also equal to  $q(E + v \times H)$ . The trauma of this first introduction to new material would be too much to handle on grades.

At the same time, it would be useful for freshman to have some idea how hard they will have to work to achieve a certain grade sophomore year. Having some sort of grade report freshman year will help freshmen to evaluate how important problem

sets, recitations, and quiz performance are in determining grades. The current freshman evaluation system simply does not provide for giving all students a uniform measure of their performance. Many freshman and the teachers who must grade them fail to even complete the current evaluation forms. The proposal under consideration will help to alleviate these problems.

The CEP has not yet made a formal recommendation. I hope that the final draft recommendation will take into account the points discussed above. It is also important that any grade reports issued freshman year are made completely confidential and are reserved exclusively for the use of the freshmen and their sophomore year advisors. The grade reports themselves should not be on official Institute forms, and no records whatsoever should be retained once the reports are prepared.

The UA and SCEP are still looking for more student opinions. Students have one-quarter of the votes on CEP. Tell your GA rep how you feel about this issue. There is also a SCEP meeting Thursday night where this will be discussed. Be there, Aloha!

Column/Robert E. Malchman

### What p/f means to me

"Freshmen presently receive grades of either pass or fail in all subjects they take... This process usually provides the student with a more comprehensible and useful evaluation than A-F grades alone communicated under the conventional system."

-MIT Bulletin, 1981-82

"Things are sometimes not what they seem, Skim milk masquerades as cream."

-Sir W. S. Gilbert  
HMS Pinafore

The issue of pass/fail hinges on two points: Should pass/fail exist at all, and if it does, in what form.

No one, to the best of my knowledge, has said, "Let's punt pass/fail in its entirety." That's good. Pass/fail is important both to the Institute and to me.

In the former, general case, MIT benefits in the long run. You may not remember well, but at one time all of you were scared, ignorant frosh, more a part of South Headcheese High School than the world's premiere technological institute. Somewhere along the line we have to metamorphose from urchins into human beings.

Many of the people who come here can be typified by the valedictorian of South Headcheese High. His life is academics. He was the smartest kid in the history of his school system. He would rather play with his Apple on a Saturday night than go out partying. The concept of seeing a B on a report card is alien to him.

So he comes to MIT, gets a C in 18.02, and jumps off the Green Building. His whole life has consisted of dominating academics, and now it's over, and he's crushed by it.

The other, personal case is also typical. I did well enough in high school, well enough at least to fool the admissions office into letting me in here. I hadn't worked extremely hard in high school, though the curriculum was quite rigorous.

I got up here, took 54 units on pass/fail and was in my room four hours every night, Sunday through Thursday. Twenty hours of homework a week is an anathema to me as B's are to South Headcheese's valedictorian.

It was not until second term that I got myself adjusted to the collegiate pace. My first year has been a time for fine tuning. As for the charge that I'll fall apart at the beginning of next year when I have to get (shudder) grades, that's garbage. I now know how much I have to work to produce what kind of result. If I had been on grades this year, then I would not have had any adjustment time; I could not have soaked up as many units as I did, which in turn would have prevented me from double majoring or obtaining a simultaneous S.B.-S.M. I could not have joined *The Tech* or played (in a manner of speaking) baseball, or taken spur of the moment road trips to visit old friends when my spirits needed a lift. Instead I'd be in my room gnurding four hours a night, having no idea of what I should major in, because I didn't have time to experiment with different subjects.

In all honesty, I almost walked away from MIT in the middle of last term. Without the cushion of pass/fail and the freedom it gave me to relax and explore, I might very well have left (which some will argue is a very good reason for eliminating pass/fail). Pass/fail is necessary to the development of MIT students as people, and the retention of their sanity.

Once you accept that pass/fail is necessary, you have to decide what you want "pass/fail" to mean. It does not mean "hidden grades" or any other watered down system. MIT pays lip service to pass/fail, telling frosh, "Naah, you don't have to worry, you're on pass/fail." So four years from now, South Headcheese and I are applying to medical school. I got C's on my hidden grades, but he power-tooled his freshman year and got A's. He sends his grades, I don't. Results: I'm scrod.

Some people claim that Johns Hopkins Medical School or somesuch demands freshman grades. If those hidden grades don't exist, they won't demand them. Alternatively, they could give all the freshman A's (yes, it's slimey, but hey, we deserve a break). The point is, as I think you'll read elsewhere on this page, graduate schools are not affected by the absence of freshman grades.

Felix M.H. Villars and his dancing Committee on Educational Policy want to cut back further on pass/fail. They allege that students are taking advantage of the system. Well wake up and smell the coffee, Felix, the system is designed to be taken advantage of. That is, taken advantage of by students going to museums, walking around Boston and Cambridge, getting to know people, taking subjects they never would if they had to be graded in them, joining the Tech Model Railroad Club, or playing varsity golf.

Yes, people punt problem sets, recitations and lectures, but what is the purpose of 8.01, 18.01, etc.? It's not to learn how to integrate a sine curve from here to Lobby 7, it's to get 300 freshmen sitting in a room together sharing a common experience.

Felix and Co. further allege that people are unprepared for work in their majors. Why are they passing people then? If getting a 55 in 8.02 isn't good enough, either make the subject tougher, or raise the pass level to 60, 65 whatever. Anyway, if you're going to major in physics or math, it's in your best interest to do well. After all, if you're going Course VI, and you're so dumb as to blow off 6.001 and 6.002 on pass fail, you deserve to get nailed to the wall. If you're a philosophy major, knowing that the electric field dies off as  $1/r^2$  isn't of great importance.

Peggy Richardson of the Undergraduate Academic Support Office (UASO) was saying the other day that, well, freshmen really ~~pass~~ grades so they can get better feedback. If there are any of you freshmen out there who want grades, could you stop by here so I can punch you, if you're a lot smaller than I am. What a crock.

Sure, freshmen want better feedback, but grades are not the answer. Better the UASO should

(Please turn to page 15)

The Class of 1982 finally presents  
**Senior Week 1982**

WEDNESDAY, MAY 26

**BAR-B-Q at the BEACH**

\$3 for a bus ticket - Buses leave at 9am  
Rain date is Thursday

THURSDAY, MAY 27

**END of THESIS CELEBRATION**

Music, Beer, and Pizza at the Baker Dining Hall  
9pm to eternity **FREE!**

FRIDAY, MAY 28

**THE HARBOR CRUISE**

8pm to midnight \$5 per person  
leaving from Long Wharf near the Aquarium T-stop

SATURDAY, MAY 29

**CLAMBAKE** Co-sponsored by the GSC

Lobster, clams, chicken and more!  
Kresge oval 3pm - 6pm \$10 per person  
Rain site is in the Student Center

**'82 NIGHT at the POPS**

The Boston Pops \$8 and \$6 seats 8pm at Symphony Hall

SUNDAY, MAY 30

**CHAMPAGNE BRUNCH**

10am - 1pm in Walker Memorial  
\$5 for all you can eat!

**COMMENCEMENT SEMI-FORMAL**

8 to 11:30pm at the Museum of Transportation  
\$10 per person Bus tickets \$1 each way  
2 bands (rock and swing), open bar, hors d'oeuvres

Tickets on sale May 5-14 10am to 2pm in Lobby 10  
For more information call Charlie Frankel at 437-0732

# Lieutenant Governor Thomas O'Neill speaks on education, research, high technology

By Barry S. Surman

Thomas P. O'Neill III was elected Lieutenant Governor of Massachusetts in 1974. He has served in that office under Governors Michael Dukakis and Edward King. O'Neill placed third in this spring's Democratic caucuses for that party's gubernatorial nomination, behind ex-Governor Dukakis and Governor King. O'Neill is a native of Cambridge; his father, Thomas P. O'Neill Jr., is Speaker of the US House of Representatives.

**Q: I'd like to talk about the governor's race: One of the issues of great concern at MIT and throughout the state is, of course, funding for education. Education is one of the largest industries in the State of Massachusetts, and the Federal Government seems to be doing all it can to reduce aid for education. What do you think can be done about this?**

**A:** Many things are going to be done over the next year or so, but in this state government, with this current Governor, there is no . . . reflection about what the future responsibility of state government to its student population happens to be, whether it's public higher education or private higher education. At MIT, for example, it's estimated that as many as 45 percent of the students attending MIT have some kind of federal assistance. It means to me that state government is going to have to look very closely in the future at the federal cutbacks, both in the scholarships as well as loan assistance, to make sure that they fill that void as best they possibly can, to keep not only private schools but public schools of higher education afloat, and give our young people an opportunity to an affordable education for the future.

**Q: What about the future of basic research?**

**A:** The future of basic research? There's a massive national debate going on between basic or applied research. Both in a way benefit our economy here in the State of Mas-



sachusetts; the applied research in the private sector; the basic research, of course, in our schools. I think that there's a balance here which ought to be addressed and maintained. We need the basic research in order to keep the entrepreneurship alive and vibrant in the State of Massachusetts, and therefore state government is going to have to pick up and play a role in the next few years to make sure that monies are available in the basic research area. As far as the applied research area, I think that the federal cuts haven't been that devastating and that, frankly, we'll be able to augment that with state government programming . . .

**Q: A natural extension of education and research is the high technology industry. How do you view the economic outlook for high technology in Massachusetts, and what will you do to nurture its continued growth?**

**A:** Well, the next ten years in the State of Massachusetts, I think, really are going to demand that the Governor, no matter who it is, is going to have to pay attention to the fundamental building blocks: making sure that education is available and it's working far better than it currently is, especially on the public side. Secondly, that we restructure the tax base so that it helps the average working man and woman, so they get to a point where they'll want to stay, living in the State of Massachusetts or working in the State of Massachusetts, and not be continuously pressured by such an overwhelmingly progressive tax formation in the state. Thirdly, to make sure that things like balanced modes of transportation and housing starts are in place so that people are given a reason to want to stay here. I think in another way — this ought to be said — the average age of the worker in the manufacturing place right now in Massachusetts is 53 years old. I don't think anybody speaks for them, nor do I think anybody speaks for the younger than 53-year-old person that is working currently in the service industries — whether that's in a bank, whether it's in a mortgage lending firm, or whether it's in high technology. And I think as we move continuously into the so-called knowledge-based economy, everything is going to have to reflect that future, so that we make sure that people are going to be able to afford to live here in Massachusetts and enjoy the environment of Massachusetts. And I think the

next ten years of Massachusetts and its leadership are going to have to reflect the needs of those young people, who are the younger members of our workforce, who don't feel as though they have any kind of representation coming from Beacon Hill at all.

**Q: It has been proposed that university property be taxed; at MIT it comes up every . . .**

**A:** Two weeks or so.

**Q: Have you considered that possibility as a way to make up some of the funding cuts?**

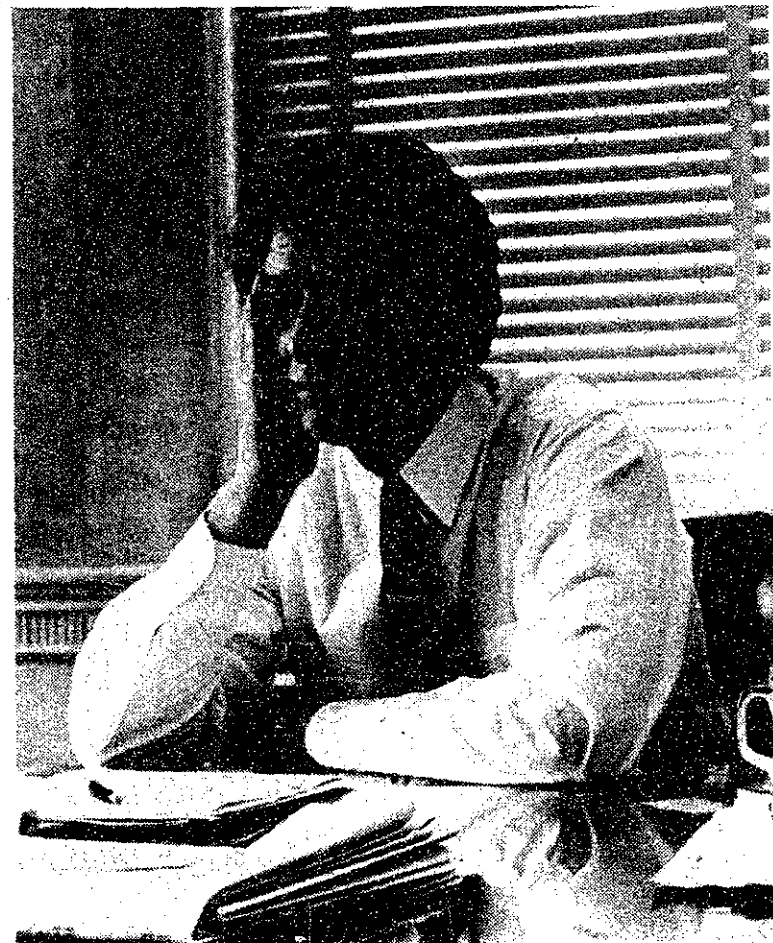
**A:** As a thinking man, well, you know, obviously I've pondered it. I've come out opposed to it because I think it just brings up infinitesimal problems of constitutional law which this state government is not prepared to reckon with. I think that in-lieu-of-tax payments to cities like Cambridge from schools like MIT or Harvard, I think are firm precedents, which ought to be taken care of statewide or duplicated statewide. But you pay for your own basic services over there; you've hired your own police or security forces, you've hired your own garbage disposal firms, you've hired your own service capacities. And, to what extent that you've made a contribution to the city where you're working or operating from — I think there's a great degree of equity there. MIT and Harvard are a great building block for this state. They're great drawing cards to young people from all over the world to come and to learn, and it means a great deal to the future of our economy. So, I think the greatest opportunity we have is to make sure that we keep you solvent, and we do that by making sure that we create as much scholarship and loan assistance as we possibly can and try to keep you in business, with as much solvency as we possibly can.

**Q: The Speaker of the House, a Congressman from Cambridge, suggested that any Democratic candidate for governor would have a difficult time beating the Republicans.**

**A:** My father said that? . . . Well, my father and I really do talk — I'm not Jerry Brown, who has disavowed his father. As a matter of fact, I'll go on to say that I think he really is providing the leadership on a national level in areas like continued programming for students and students' assistance; and I intend to do exactly that, I'll duplicate that at the state government level. I don't know what he was talking about or the framework within which you asked the question, but that doesn't make a great deal of sense to me. I will tell you, incidentally, that I think none of the candidates, including myself, has captured the fancy of the electorate in this state. I think the message of change that I espouse is as close to the feeling and the passion of the people, of their frustration, as any other candidate. But I think it's awfully early in a primary season to determine, number one, who the winner is going to be, or secondly, who can beat whom. I haven't heard John Lakian, I haven't heard the Independent candidate for governor, nor have I heard the other two candidates for governor turn on and emotionalize the people of this state to any large extent. And I think right now is a period for all of us to sit back and just kind of provoke as much discussion and debate, not only amongst the candidates but with the people of the state, so it becomes kitchen table conversation as to who's right for the future.

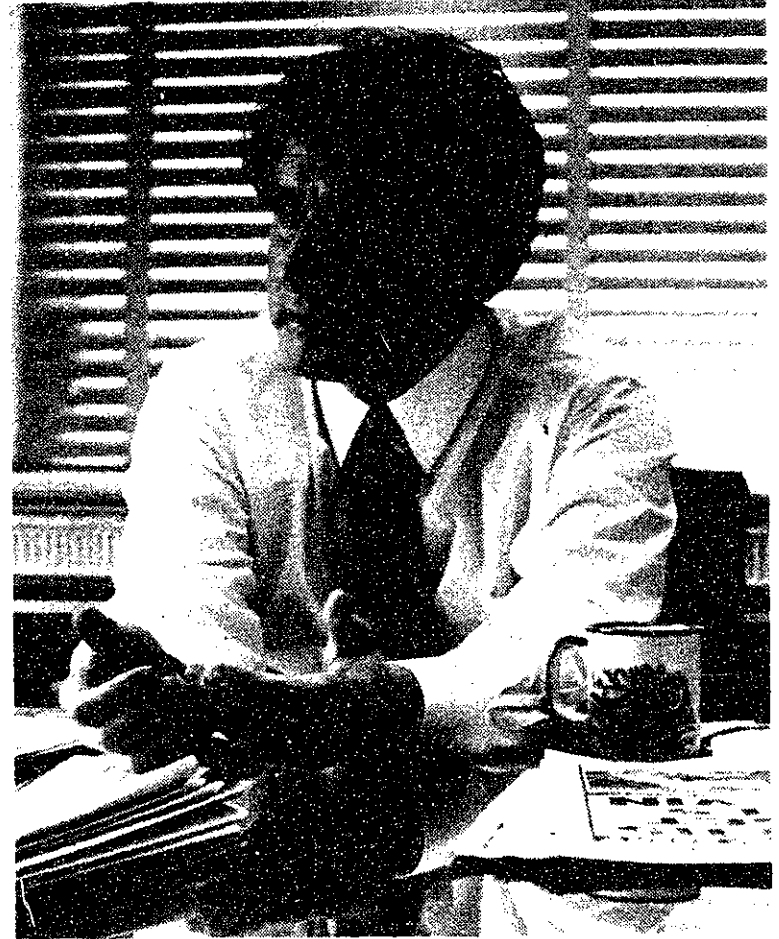
**Q: The press has recently been reporting political patronage in the King administration; the administration charges Dukakis with the same. What's your view on this, from the Lieutenant Governor's office?**

**A:** Well, I think the view . . . yeah, the view I have is really a very straightforward view. In state government in the first four years of Michael Dukakis, he saw state government grow by 5,000 employees. Under Ed King, it's increased by 3,000. There's a systemic problem in state government



where it really needs an overhaul, where they can't deal with the system of civil service, which is largely antiquated. The thing ought to be abolished and thrown out. You get a job in state government today by knowing the local state representative; you get promoted in state government today by knowing the same state representative. 82 percent of the people that work in state government have never

taken a test to come to work for state government. They're here because they've circumvented the system, they're hired as confidential employees or temporary employees or provisional employees. I think it ought to be scrapped; I think it ought to be abolished, and I think in its place we ought to have a strong merit system, so that we have qualified individuals who have taken a test and the most qualified amongst them come in, and then give them a job within state government.



Tech photos by Kevin Smith

**Q: What about at the higher levels: department heads, judges?**

**A:** Are you linking that to patronage? My feeling is this: that whoever the governor is, the governor really gets pervasive in the way he appoints people. I've watched one state government bring in people who are very similar to him, they were basic appendages of him in attitude and aptitude. Were they political or not? Well, that's up to the electorate to distinguish whether they were very good agency or department heads and were doing the job. I've watched another governor surround himself with his friends — and again, we leave it up to the electorate to figure out whether that's exactly what they want. Do they want it repeated or don't they want it repeated? As far as I'm concerned, I think it's high time the state government begins to appoint . . . and the governor begins to appoint agency and department heads and mid-management that reflect the whole society of this state. I don't want to be held to a litmus test of the 1960's as to who's liberal and who isn't, or a conservative litmus test of the early 1950's as to who is conservative and who isn't. The fact is that we have both conservatives and liberals in this state. We have many marginal ethnic [groups] in the state, we have many people in a melting pot that reflect the needs of the state; and I think every one of them ought to be represented in state government. And therefore, I think in some areas of state government it's time to appoint a businessman; in other areas, it's time to appoint somebody from higher education; in other areas, it's time to appoint perhaps other politicians; and in other areas, somebody from labor. but I think state government ought to reflect the society that it intends to represent. I think that's Jeffersonian, and I think it's correct.

**Q: What about the cities in Massachusetts? Boston, especially, has had financial trouble, but other, medium-sized cities in the state are facing financial difficulties as a result of Proposition 2½ and as a result of federal cuts in aid. What can the state government do in the next few years to ease the financial crunch on its cities?**

**A:** To guarantee and make permanent local aid. I think all candidates are saying that. Ten years ago, I advocated with [Rep.] Barney Frank a tax restructuring plan which begins to analyze exactly where the problems are within our tax formation. The property tax in this state is the highest in America, and in many cases it's 200 or 300 percent higher on a per-capita basis than you'll find it elsewhere. The income tax in Massachusetts is the seventh highest income tax in our country. Now, I think we've come to the point where we're long overdue on restructuring the whole tax base to give the average working man and woman a break. Now, history has shown Massachusetts as saying, "Look, if you want basic essential services maintained within your local city or town, then you go back to the local property tax — that's your tax of last resort — and continuously use that." I think we can't afford that luxury and more; I think we have to stop the rise in the property tax in this state. I think we have to diminish the income tax for everybody in the state — for the poor, the middle-income and the wealthy, and I think that we have to increase revenues in another area: the sales tax. I'm beginning to think, after hearing Ronald Reagan and Ed King speak, that they're trying to tell people the potholes are biodegradable. You can't keep deferring those types of costs; . . . you can't defer the cost of a 35-year-old fire engine. And, if you continuously do it, the taxpayer is not going to be able to afford it in 1985 and 1986.

(Please turn to page 8)

# O'Neill addresses state campaign issues

(Continued from page 7)

**Q:** Specifically, what about Boston, which is still without a bonding bill in the State Legislature?

**A:** I think it's one of the silliest things I've ever seen. I don't agree with Eddie King or [Boston Mayor] Kevin White on everything they do, but I think leadership dictates that the chief executive officer of the state government and the chief executive officer of the city have the capability of getting together and sitting down to iron out what a Tregor bill or a bonding package is going to look like, in order to put their fiscal state back in place.

**Q:** In Cambridge in particular, local residents are often concerned about the growth of the universities. The Simplex Steering Committee and similar organizations protest the growth of MIT into Cambridgeport and East Cambridge. How do we balance the needs of local community for local jobs and for residential areas with the economic demands of high technology?

**A:** The future really dictates that both your school, MIT as well as Harvard, as well as the city government of Cambridge not only in a programmatic approach understand what the impact of expansion means to us: displacement, fewer jobs, less revenue opportunities because you're removing some of the revenue package, whether it's a portion of a residential community or an industrialized community. Okay, but there's a public policy developed around your expansion policy, so you know that whatever your expansion, wherever your expansion takes you, you know exactly what's going to happen to the people that are going to be displaced, what's going to happen to the jobs, what's going to happen to transportation, what's going to happen to the industrial base, and what long-term effect that's going to have for a city like Cambridge. But the open warfare, the cannibalism just can't continue between a private higher education institution and a city like Cambridge.

In one sense, MIT and Harvard are wonderful opportunities for our future. I came from Cambridge — North Cambridge — and as far as I was concerned, I never knew that Harvard or MIT even existed in that city, for the lack of contribution that the institutions made to the neighborhood folks.

**Q:** Do you think that's changed now?

**A:** To a moderate extent. I don't [think] anybody has been able to bridge the gap between the "town and gown" relationship, and that's because nobody has ever attempted to try. It's always a situation where one side gets pitted against the other. In one sense, you have a transient population moving in and moving out, and in another sense you've got people there for a longer term.

**Q:** On another subject: the campaign. How has campaign fundraising been going?

**A:** Well, I guess both former Governor Dukakis and Governor King have raised somewhere around a million dollars. I've raised about \$800,000. As a challenger, I spend all my money, which is what challengers do. You know, I've compared my candidacy to a Saturday night date when I was in high school. Never had the money on Wednesday afternoon for it, but somehow I always was able to get the money by earning it by Saturday night for a movie. And that's the way we do it.

**Q:** Is the situation improving? Are people beginning to take the campaign more seriously and, therefore, contribute more funds?

**A:** We've never had that type of problem of saying, "Look, we're broke, we can't go another step." There's a whole [number] of people out there that haven't even focused on this gubernatorial race; most people in the state work long and hard in the course of a workday, then they go home. They eat dinner with their family, they watch the evening news and have a drink, a beer, and then

himself afloat; he was behind by 40 points in the polls. Ed King was behind by 50 points in the polls six weeks before the primary. I ran Ted Kennedy's campaign in New England. The day he announced he was ahead of Carter by 70 points. So, the polls are applicable to the day they are taken, but [don't] show any movement. You can develop

...the open warfare, the cannibalism, just can't continue between a private higher education institution and a city like Cambridge.

they go to bed. If you think they're talking about Dukakis, King, O'Neill — there's no way that that's happening.

**Q:** Do you think it's a discouraging sign, then, at this stage, that people are not yet stirred by the campaign?

**A:** No, I don't think so at all. Let me give you the history of challenges. Back in 1974 at this point, Mike Dukakis had remortgaged his house a second time to keep

a trend, but you, as a candidate, have to go out and meet people, you have to give them a reason to be with you. I'm telling you that no matter who is elected, Mike Dukakis, Ed King, Tom O'Neill, it doesn't matter: Your taxes are going up next year. You're not moderately surprised by that statement, are you? ... You do it my way, and the working man and woman in this state don't get hurt.

**Q:** The MBTA seems to be chronically plagued with financial difficulty, with labor problems, with schedule problems. What can you as governor do to make the MBTA ...

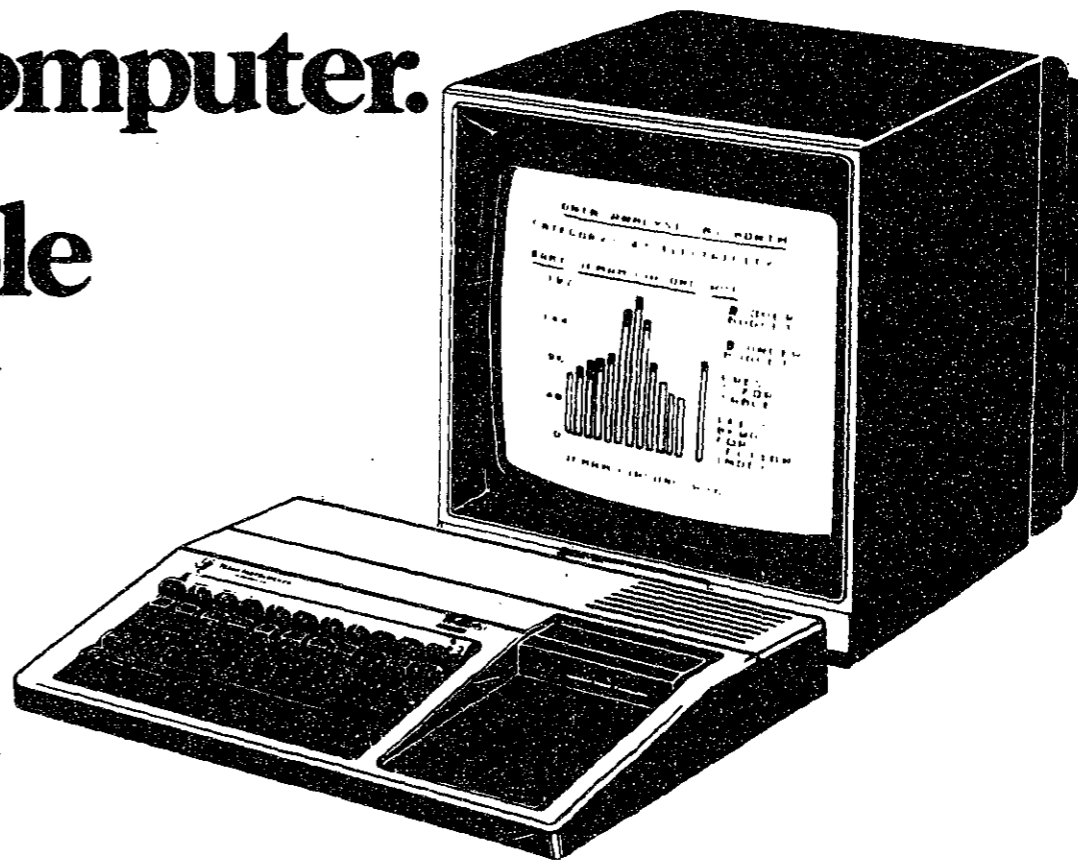
**A:** Put a stick of dynamite under it. Look, six months ago I was compared to John Anderson because of the ideas. Last week, some newspaper came out and called me the Fred Harris of the 1982 gubernatorial race! Some wags suggest that you can actually manage the MBTA. The current administration doesn't know. One thing is true: The service has decreased; it went when the fare was increased. There isn't another public transportation authority or system in this country that runs itself like the MBTA does. The thing has been bankrupt, and it is bankrupt right now. With cutbacks in federal monies from Washington, the deficiencies aren't going to be simply at \$250 million; they're going to be more like \$500 million. Now, how is that gonna help you, as a member of our community, number one? We ought to separate our commuter rail and put it in state government and just simply say, "No longer can we afford it to run the way it's running." Every passenger on that system of com-

muter rail gets subsidized \$10 per round trip every single day. It's cheaper to buy each one of those commuters a used car. You'd have to be simple to look at those numbers and continue to run that system. And I think that burden ought to be taken off the back of the property taxpayer; let the state run it. And after the contracts run out, give it back to the [Boston and Maine Railroad] on a leaseback basis, and let them operate it in the black.

Secondly, the bus service. Give it back to private operators. They run their bus companies in the black currently; let them take the bus service from the MBTA and let it be run in the black as well. The plan ought to be forced; my plan does force a reduction in fares of 20 percent. And let the T continuously run the rapid transit, but break into those work rules, and don't equivocate. In other words, say no to the Carmen's Union, which, in my mind, is not a positive trade union movement, but it gives the trade unionist movement in this state a black eye. I think we ought to declare it a national historical landmark: The MBTA is the oldest system in America, it's run in an antiquated fashion, and it's silly.

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## TEXAS INSTRUMENTS

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# Presidential science advisor discusses policy

By Jerri-Lynn Scofield

Dr. George Jay Keyworth was named President Reagan's science advisor and director of the Executive Office of Science and Technology Policy last spring. Before assuming that post, Keyworth served as research director at Los Alamos National Laboratories.

**Q:** A few weeks ago you announced that you were going to not exactly revive the President's Science Advisory Council (PSAC) but start a White House Science Advisory Council. I know Paul E. Gray '54 has been named to the council. In your speech last summer before the American Association for the Advancement of Science (AAAS), someone asked you a question about PSAC and whether it would be revived, and you seemed to say 'not under its old form.' What do you expect to get out of this council and how it different from the old one?

**A:** First of all, it may not seem so, but in my own mind I've been quite consistent . . . In the very beginning, I recognized that there had been a problem with PSAC, perhaps a perception problem, but associated with the fact that PSAC perceived itself as reporting directly to the President. And in a sense, it operated in parallel with the science advisor's office; and I feel, because of the management style of President Reagan in particular, as well as from simply the benefit of having past experience to try to understand and learn from, that the very clear need for an outside advisory panel would be best addressed if the group reported to me and helped me do my job, and then I, in turn, tried to provide the best advice that I could on scientific and technological issues to the President. And that is why the name is different, for example.

Basically, the general *modus operandi* is very similar to PSAC — similar issues, I believe, but what they do do is meet with me and provide me with advice that I, in turn, use as input to the policy-making process of the White House. But we do not work in parallel; we work in series and that is the only fundamental difference. And it is much more a difference of perception on the part of the Council itself, and particularly, perception from outside. I think, in other words, if I may put it this way, the White House Science Council is very much inward looking rather than outward-looking, and I have received quite a few comments about lack of demographic distribution and so on. And the point is, I paid absolutely no attention to demographic distribution. I paid an enormous amount of attention and spent six months — discussing it, of course, with members of the White House, but also — in simply picking 13 people who I thought could be responsible, possess excellent judgements, and able to provide a real contribution in formulation of policies and settling issues here in the White House. And in a sense, I am more than delighted with the selection, and so are other members of the White House. Ed Meese came and talked to us on our first day, for example.

**Q:** How many times have you met?

**A:** Oh, just once — two weeks ago today. [This interview was conducted on March 23, 1983].

**Q:** Well, two MIT people are on that committee. Dr. Gray and Dr. Arthur K. Kerman '53 Professor of Physics.

**A:** Yes, don't go looking at their college educations, because you'll find that MIT has a very disproportionate influence on this committee. I did clarify that they do not constitute a Charles River Mafia — as long as I sit in this office, I will place some emphasis on the Rio Grande Mafia!

**Q:** I see. My second question relates to manpower training issues. There are many people claiming we have a severe shortage of scientists and engineers, both at the undergraduate level, the graduate level and the professional level. Particularly when compared to the U.S.S.R., Japan, and Germany, the United States has a much lower percentage of scientists and engineers. Yet, administration policies regarding student financial aid are cutting sources of aid for higher education and the Administration has decided to eliminate the National Science Foundation's (NSF) education directorate. As White House science advisor, how you intend to address the manpower problem?

**A:** True, we're spending a lot of time on this issue, and, as you may know, that's how I first got to know Paul Gray. First of all, let me make a small distinction because I think we have a problem in training and developing of scientific and technological skills nationwide, across all areas. But I think we have a near-crisis in one area, and it has to do with engineering. I think science is basically very healthy in the United States; I think we have a very serious problem being able to meet the demands for engineers in quite a few areas, certainly one of the most obvious of which is in electronics and computer hardware and software. And this need is not something that has been generated in the last year. I think the requirement or the situation where the need is outstripping the supply has been building for several years now, from what leaders of American industry tell me, and I think it is rapidly approaching a crisis. Now for the perception of inconsistency, let's address that.

First of all, the reason we took the action that we did with the National Science Foundation education program was not because we do not feel that the National Science Foundation has no role, buy, rather, because we felt that the programs that they had, they myriad, very small, scattered programs, first of all, were not coherent, did not address an objective of the '80's, but, if they addressed any coherent objective at all, it was perhaps an objective of decades past, of the 60's. And what I have done is to encourage the National Science Board to take a hard look at what the appropriate role for NSF should be in the context of today. And, for example, they have established a commission to look at science and mathematics training in secondary schools, and there may very well be a role for the NSF to play. Remember, it wasn't more than 15, 20 years ago that the National Science Foundation was instrumental in developing new curricula for the teaching of

secondary school science, physics, biology, and I think it was very successful. Now, I'm not preparing to state right now exactly what I think their role should be, but I offer that as an example.

As far as support of students, I think we feel very strongly that the major federal role in support of education is through sponsorship of research, and I think we do carefully distinguish between research that's conducted in academic institutions and that that is not — simply because academic research has a second major benefit in addition to the research itself; that is, the development of the education of students. And many people forget that the vast majority of students of science and engineering that are supported at all are supported on graduate fellowships. I think the rest of it has to do with the question of the federal role versus the local role; and I think we feel that the federal role does not encompass the support of scholarships for college pre-graduate training, and it never has had a dominant role. We recognize the magnitude of the manpower problem. That does not mean to say we wish to emulate the Soviet Union or Japan, but we look at it in the needs of our own industry and our own defense, for example. And we are very much trying to stimulate actions in the private sector, and we are very sensitive to the fact that there very well may be a major federal role. But what we're really doing, incidentally, is we're trying to look at development of the institutions for the 80's and for the '90's that will be those that will best foster a science and technological base that will support the needs of the future, instead of simply trying to say to ourselves, "This is what we did in the '60's and '70's, and we have to find a way for preserving the momentum." And these are changing times: The biggest problem, in my opinion, in issues that touch science and technology really is the flagging international competitiveness of our high technology industry. And that is very much associated with manpower. We are looking in that context. It's not a simple answer, but it's not a simple question.

**Q:** So, you seem to be saying that the Federal government will continue to be present at the graduate level. When costs at an institution like MIT for an undergraduate next year

are approaching \$14,000 — those costs have risen greatly in the last several years — might the Federal government adopt an increased role in financing undergraduate education in engineering or science, rather than a declining one?

**A:** I think the dominant role is not the federal role, but I don't wish to . . . the reason I answer it that way is because I don't wish to relinquish realization of the situation. The Federal government must be in a position of meeting those needs that cannot be met that are critical to the country, that cannot be met any other way. What we are trying right now is to develop mechanisms that we feel will have the longest, best potential for amng-lasting effect in stimulating training in science and engineering. I might remind you that supporting graduate education develops teachers, who, in turn, enhance the undergraduate level of training; and that's where we definitely do feel a real responsibility. But I don't . . . by the way, \$14,000 — that's a lot of money. But you might remember something: I look back at the tuition that my parents paid for me to attend Yale in the early '60's, and if you fold in the inflation factor, I think the tuition at that time was almost exactly the same as \$14,000 today. And I do not think, because inflation has affected the dollar cost of education, it should imply that the Federal government suddenly has to take over, accept the implications. If I recollect, I think my parents paid something like \$3,600 or \$3,800 a year for me to attend Yale; I think there has been something like a factor of 3 plus-or-minus .2 inflation in that period of time, and I think that comes to almost exactly \$14,000.

**Q:** Since you're running late, my last question is you came to this position as a Washington outsider . . .

**A:** I certainly did!

**Q:** First, I would like to ask you how you have developed credibility, coming from without rather than from within the ranks. And second, have you found that your access to the President has been sufficient? There was some debate about that last year, if I remember correctly.

**A:** I'll answer them in reverse order. First of all, of all the problems that I am faced with daily and the impediments and even occasional frustrations, one that I do not suffer from is the access issue. I see the President as frequently

as, I believe, science advisors may have in the past, more than some, less than others, perhaps. But access to formulation or involvement in policy formulation where science and technology is involved has not been a constraint or a limitation at all. My problem has been trying to be certain that I am right as frequently as possible — right in the sense of correct, as frequently as possible.

In terms of the credibility issue, I could almost turn that around and say that I think that perhaps having been outside the Washington establishment has enhanced my credibility, certainly here in the White House, unquestionably, and has likely enhanced my credibility with certain members of certain factions of the scientific world. There is the so-called Washington science policy establishment, and there are also those who are conducting science and engineering in the United States; and I am much more interested in addressing the latter than the former. And, after all, what is credibility anyway but

(Please turn to page 12)



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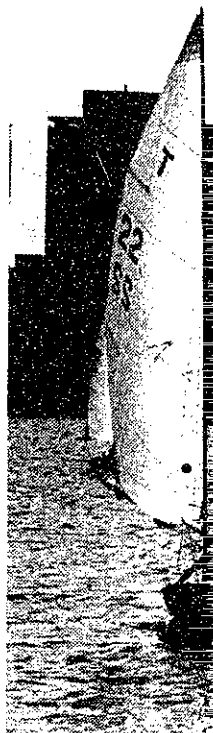
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# Racing on the Charles

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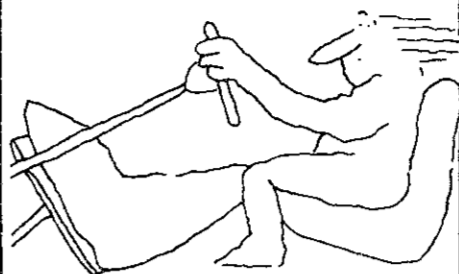
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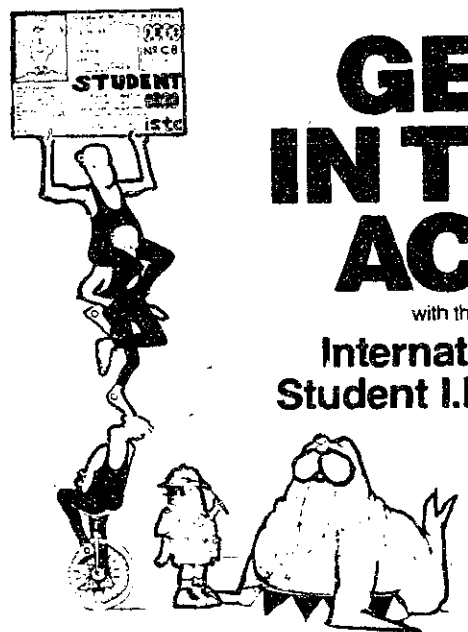
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# Keyworth on science policy

*(Continued from page 9)*  
 hopefully you accept something that is developed from something that is earned. And I think that, basically, I am being judged correctly and perhaps sometimes incorrectly, on my actions — not upon whether I was a member of the Washington science policy establishment. And basically, I think that the concerns that were voiced when I first came here about my being limited by that, I think, in my opinion, just have never arisen at all. In fact, I would turn it around and say that one thing I have come to appreciate is the fact that having worked in a large, multi-disciplinary institution that lay in some ways between industry and academia gave me a good background for accomplishing the tasks I have to do. But basically, credibility is something that only either the . . . I guess I can attest to credibility in the White House, and I think that is strictly a local affair. But, as far as credibility on the outside, I think that's for the scientific world to try to evaluate; but I doubt very much if it will be evaluated based upon my involvement or lack of involvement in the science policy establishment.  
 Q: You mentioned you were at Los Alamos, correct?  
 A: Right.  
 Q: Do you think that experience may help you to formulate more innovative university-industrial cooperative relationships?  
 Q: Perhaps so. I think I am particularly . . . I think I definitely was aware of the problems of

academia, less so, but somewhat aware of, the problems of industry but obviously, I think I should have been — I like to believe I am — rather aware of the role that national laboratories could play. And in that sense, perhaps I sat somewhere more in the middle than I would if I had

been in either industry or academia. And I didn't feel this way when I first came, but I think I have acquired that as an observation, let's say. I think the breadth of national laboratories and academia has been very valuable experience, background for me.



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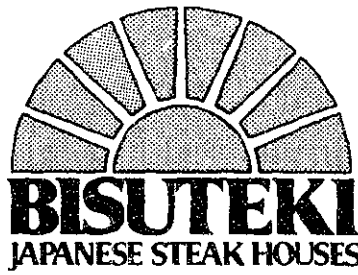
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# NEC Symphony performs

Many music lovers shy away from concerts by amateur orchestras, fearing the ordeal of an evening of out of pitch instruments screeching about at different speeds in total confusion. Thus, I was a little leary before attending a concert of the New England Conservatory Symphony Orchestra recently at Jordan Hall. The program, under the leadership of Benjamin Zander, featured Robert Schumann's *Concerto for Piano and Orchestra in A minor, Opus 54*, with pianist Randall Hodgkinson, and Gustav Mahler's *Symphony No. 1 in D Major*.

From the first note of the Schumann my biased fears were laid to rest. The instruments were not merely in tune, but produced a fine, rich tone which was consistent throughout the concert. The beginning of the concert has a very brief interplay between orchestra and piano, a pattern that unifies the entire piece and is particularly important in the second *Intermezzo* movement. Hodgkinson opened with a fiery start, to match the orchestra's similar brilliance. But when the first theme soon arrived, calling for a lyrical depth, Hodgkinson failed to produce: the melody, which begs to be sung, was played with a cool precision, as was much of the work. This does not do justice to the drama-filled concerto. There were stirring moments, particularly the powerful ending of the opening *Allegro*. At other climactic points, Hodgkinson failed to muster the requisite brilliance — this was most apparent in the cadenza, which here was muddled by a combination of the pianist's overpedaling and Jordan Hall's poor acoustics.

The *Intermezzo's* dialogue was more like two soliloquies — the continuity between piano and orchestra was not there. But the thrilling finale, *Allegro vivace*, came off well, with the help of the orchestra's strong accompaniment, and Hodgkinson ended with enough momentum to earn a rousing ovation.

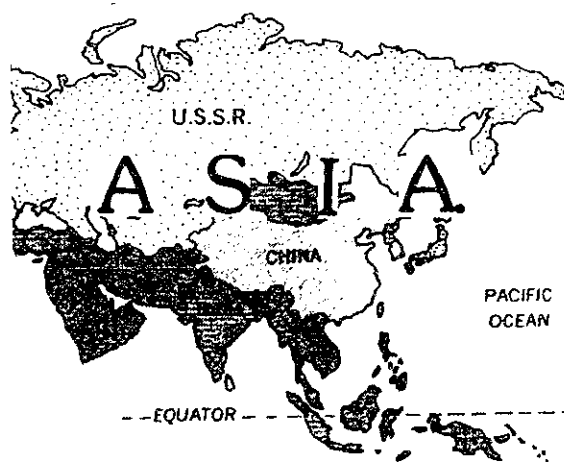
Mahler's *Symphony No. 1* is a true test of any conductor and orchestra's technical and interpretive powers. And here the challenge was met with success. The first movement opens with a slow introduction, a sustained A, creating suspense. The orchestra began a bit tensely, with the strings wavering a bit, but they opened up with the arrival of the main theme, a quotation of one of Mahler's own songs, "On the Morning Field I Trod." Zander built up to a truly thrilling climax at the end of the movement which was especially remarkable in that it was totally under control. The enthusiasm of the orchestra spilled over into the 2nd movement *scherzo*.

The third movement is worthy of some background comment. It is titled "Funeral March in the Manner of Callot" and is famous for its use of the folksong "Bruder Martin" (perhaps you know it as "Frere Jacques") — a rather ironic use in that Mahler turns it into a doleful canonic dirge. It gave the 19th century audience cause for much disgruntledness, but it set the pace for future uses of musical quotes. The performance here began well enough, with a gradual buildup of tensions. But as things proceeded, the mood was lost and it was just notes.

The orchestra picked up quickly with the final movement, and the virtuosic runs were handled quite well. The majestic ending was so impressively played that the orchestra received a standing ovation from the appreciative audience.

The New England Conservatory is a top notch music school as evidenced by their fine symphony orchestra. They offer several concerts a week, ranging from piano recitals to full orchestral concerts, and most are free. The unusually designed Jordan Hall is reasonably close to MIT... take Massachusetts Avenue over the river to Symphony Hall, turn right on Huntington Avenue, and in one block it's on your left. If this concert was any indication, the 30 minute walk is time well spent.

Mark Tunick



Asia, on Geffen records; and in concert at the Orpheum Theatre, April 29.

The minimalist trend in popular music that began in the late seventies brought an end to classically influenced bands like Yes and Emerson, Lake and Palmer. Gone were the days of fascinating technical skill and orchestral firepower. Instead, record stores were filled with music from bands of minimal skill and modest complexity. In an effort to bring some of the flavor of "classical rock" back into the public eye, four musicians of distinguished background have banded together to form Asia. Their music breaks little new ground, but is well conceived and faultlessly performed.

John Wetton, former singer/bass player for King Crimson and U.K., is the single greatest influence on Asia's sound. He has a pleasing voice and is a competent composer. Steve Howe, of Yes fame, lends his unique guitar stylings, but as usual, he doesn't stand out, choosing instead to contribute unobtrusively to the overall effect. Geoffrey Downes, who replaced Rick Wakeman on the last Yes album, mans a battery of synthesizers, creating a spacious orchestral backdrop. Virtuoso drummer Carl Palmer, (formerly with ELP) adds spark to tunes that otherwise might become a bit plodding.

The result is pleasing. The track that has received most airplay, "Heat of the Moment," is actually interesting. There is no doubt that it is a commercial attempt, but it retains some of the quality expected from the performers involved. Rhythms are varied, textures complex and melodies musical. Commerciality aside, the musi-

cian's sheer skill makes it a pleasure to listen to well-played music again.

This past Thursday saw the Boston debut of Asia. Their show was, as one might guess, well produced and not unimpressive. Downes was ensconced on a stage-wide raised platform, behind the rest of the band, that he managed to cover with at least a dozen keyboards. Central to the assemblage was a new digital synthesizer, complete with CRT, which he used to grand effect during a keyboard solo that was purely pretentious bombast (but fun). Palmer contributed to the bombast with an awesome five minute drum solo, complete with oriental gongs and tympani. Not to be outdone, Steve Howe delivered a more low-key acoustic guitar solo that was quite enjoyable. Asia also played a few new songs that showed promise. With "Heat of the Moment" as an encore, the band closed a show that was entertaining and definitely worth seeing.

What would the world be without a bit of good wholesome bombast now and then? Although they lack the originality and material of bands like Yes and ELP, Asia is quite up to the task of creating enjoyable music in the "classical rock" vein. And although they may never create an album like *Fragile* or *Brain Salad Surgery*, they are worth a listen — if only as an alternative to the Cars or AC/DC clones that infest the airwaves these days.

Roger Pellegrini

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# Opinion

## Grease and frothing on the CEP

(Continued from page 5)

revamp the advising system, making the evaluation form mandatory (i.e. you get an incomplete if you don't hand it in) and leaning on the instructors to be more conscientious about filling them out. They should also get some advisors who know what they're doing, how the Institute works, and to be otherwise generally useful to replace the deck of jokers they have now.

Far be it from me to ascribe false motives to the CEP, but someone might see this latest machination as a sleazy attempt to railroad the matter through at the end of the term when everyone is too busy to notice, thereby shafting the Class of '86 horribly.

That would be unfortunate. The CEP should put the matter over to next term, when they should consider making pass/fail real in every sense, and changing the advising system. No one should be able even to suggest that Felix Villars and the CEP castrated pass/fail while no one was looking.

Column/Ken Snow

## People die in conventional wars

The recent problem in the Falkland Islands is a necessary relief in these trying times. With all the problems in foreign policies, it is nice to have a plain, ordinary war again. The Falklands incident is not another religious war or an expansion of Communism or Facism. It is not a broadening of the cold war. It is not a nuclear threat. It's a war. Your plain, run-of-the-mill type war. One country had some land, another country took this land claiming it was rightfully theirs and won't give it back. The first country brings out the military, and we have a war. It is not a new

idea but it is effective.

Not only are the reasons for this war understandable but we actually know, without consulting an atlas, where the countries involved are located. Great Britain is somewhere north of the European continent and Argentina is somewhere at the end of South America. The islands are just off the Argentine coast. Moreover, we can easily pronounce the names of the countries involved and as an added bonus, we can actually spell them. If this wasn't enough, both countries are of substantial size and have major economic dealings with the US.

It has been a month now since Britons gathered at Portsmouth harbor to watch a scene that has occurred many times before throughout history. Ships with names such as *Hermes* and *Invincible* moved majestically through the harbor as the crowds cheered. Sailors and marines on board waved to the crowd — to their loved ones. Women stood on the docks and watched their husbands, sons and lovers go off to war. They all knew that once the first shots were fired it was inevitable that some of the soldiers would not return.

Meanwhile, Ground Zero

Week ended recently and a number of politicians are talking about nuclear arms control. Fortunately, Great Britain has not dispatched any nuclear weapons to the Falkland area and even reoutfitted some planes that had been equipped with nuclear weapons with conventional weapons.

"Conventional weapons" is such a misleading term. I always thought of slingshots as conventional weapons. Now, a conventional weapon is one in which you can identify dead bodies after the battle. Nuclear weapons don't leave bodies; only fused silica.

### High Sodium Levels in Cambridge Water!

"The City of Cambridge Water Department has been notified by the Massachusetts Department of Environmental Quality Engineering that the drinking water supplied by us has a sodium content of 41 milligrams per liter (parts per million) as shown by samples collected from the water supply in calendar year 1979. . . . Since many persons suffer from diseases which are, or may be, influenced by dietary sodium intake, and since others may wish to restrict sodium intake for other reasons, it is desirable that the sodium content of drinking water be known to the consumer. Those affected can by knowing the sodium concentration in their drinking water, make suitable adjustment to their diets. In extreme cases, some may even wish to use alternative sources of water for drinking and food preparation. If you are on a restrictive sodium diet, you should consult with your physician about this water."

City of Cambridge  
Water Department  
July, 1980

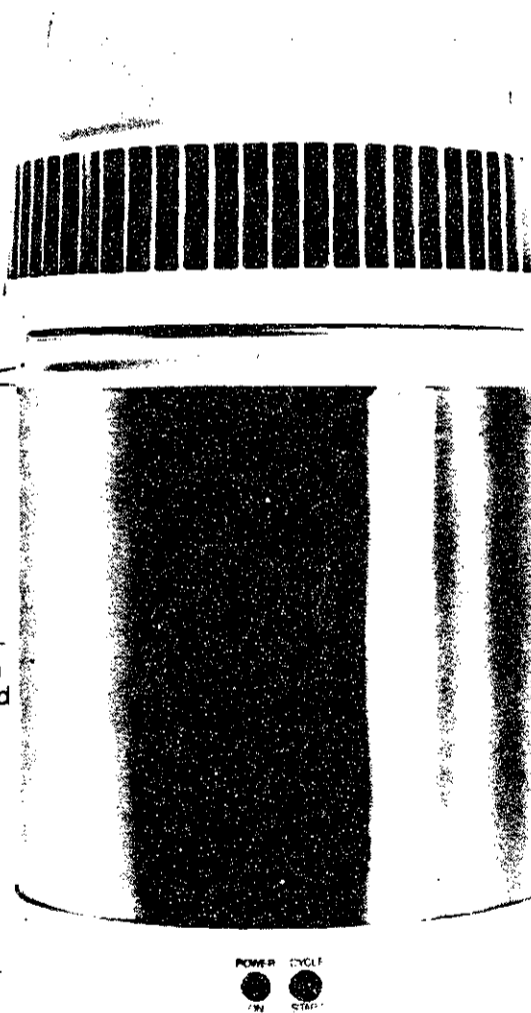
### Drinking Tap Water Can Be Risky!

"Since the early 1950's, the number of reported waterborne disease outbreaks has increased gradually. The latest statistics available indicate that from 1961 through 1978 drinking water caused 407 outbreaks of disease or poisoning resulting in 101,243 recorded illnesses and at least 22 deaths. Some water supply experts believe that 10 times as many outbreaks actually occur but go unreported."

By the U.S. GENERAL ACCOUNTING OFFICE  
March 3, 1982

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<b>A. Chemical Tests</b>			
Chlorides	63	4.0	94
Hardness as (CaCO <sub>3</sub> )	64	4.0	94
Calcium	12.3	0.16	99
Iron	0.229	Less than 0.01	96
Magnesium	3.15	Less than 0.001	99
Sodium	40.2	Less than 0.001	99.9
Pb	6.72*	6.06*	
<b>B. Water samples with added metals before and after using the Distil-Clear Unit.</b>			
Barium	4.0	Less than 0.01	99.8
Chromium	4.0	0.116	97
Arsenic	4.0	Less than 0.01	99.3
Lead	4.0	Less than 0.015	99.6
Mercury	4.0	Less than 0.05	99

TEST CONCLUSIONS  
The use of the Distil-Clear unit reduces, significantly, minerals and solids from the Cambridge water when comparing before and after results. The addition of heavy metals to a water sample and purification through the Distil-Clear unit also showed marked reductions in their concentration.

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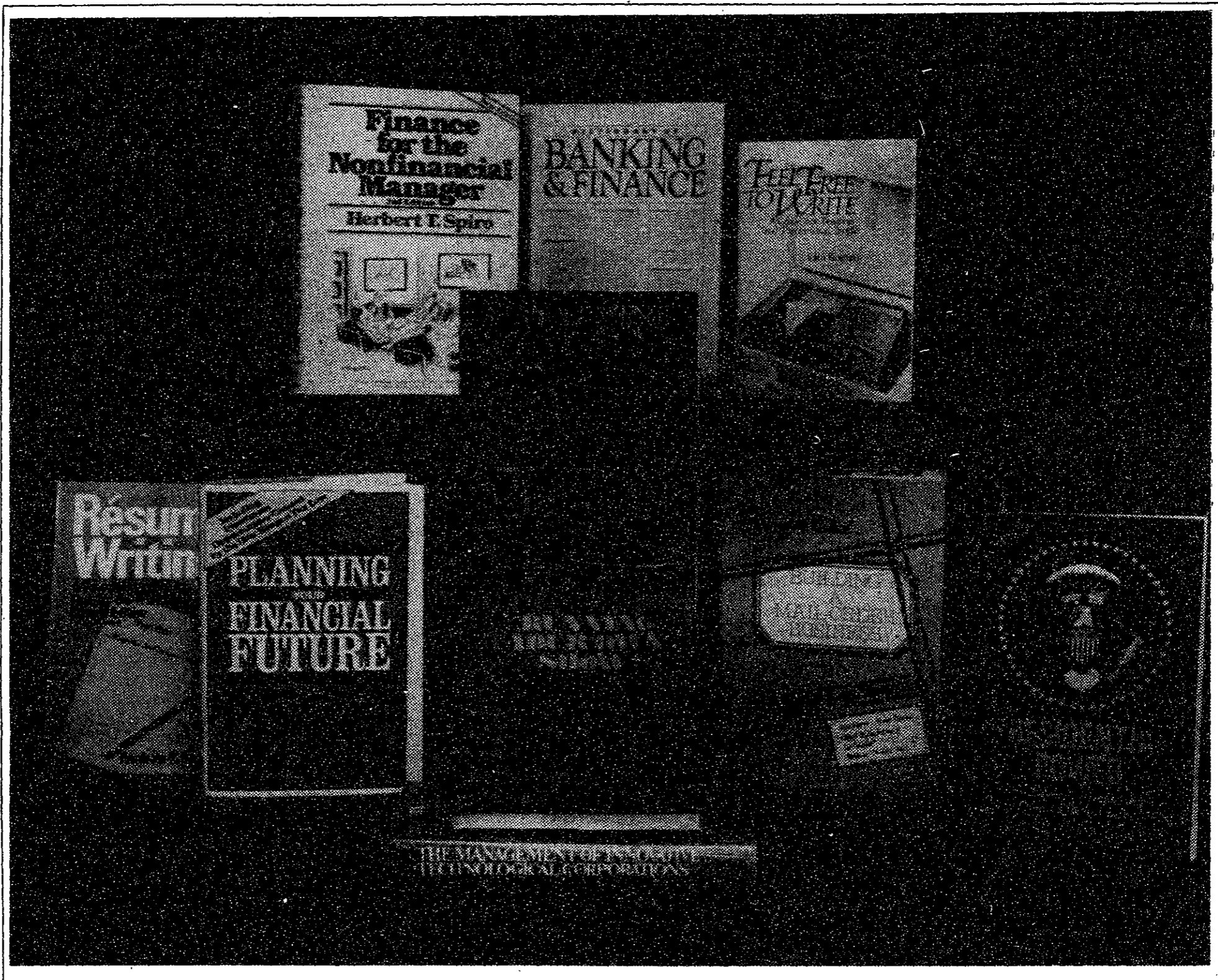
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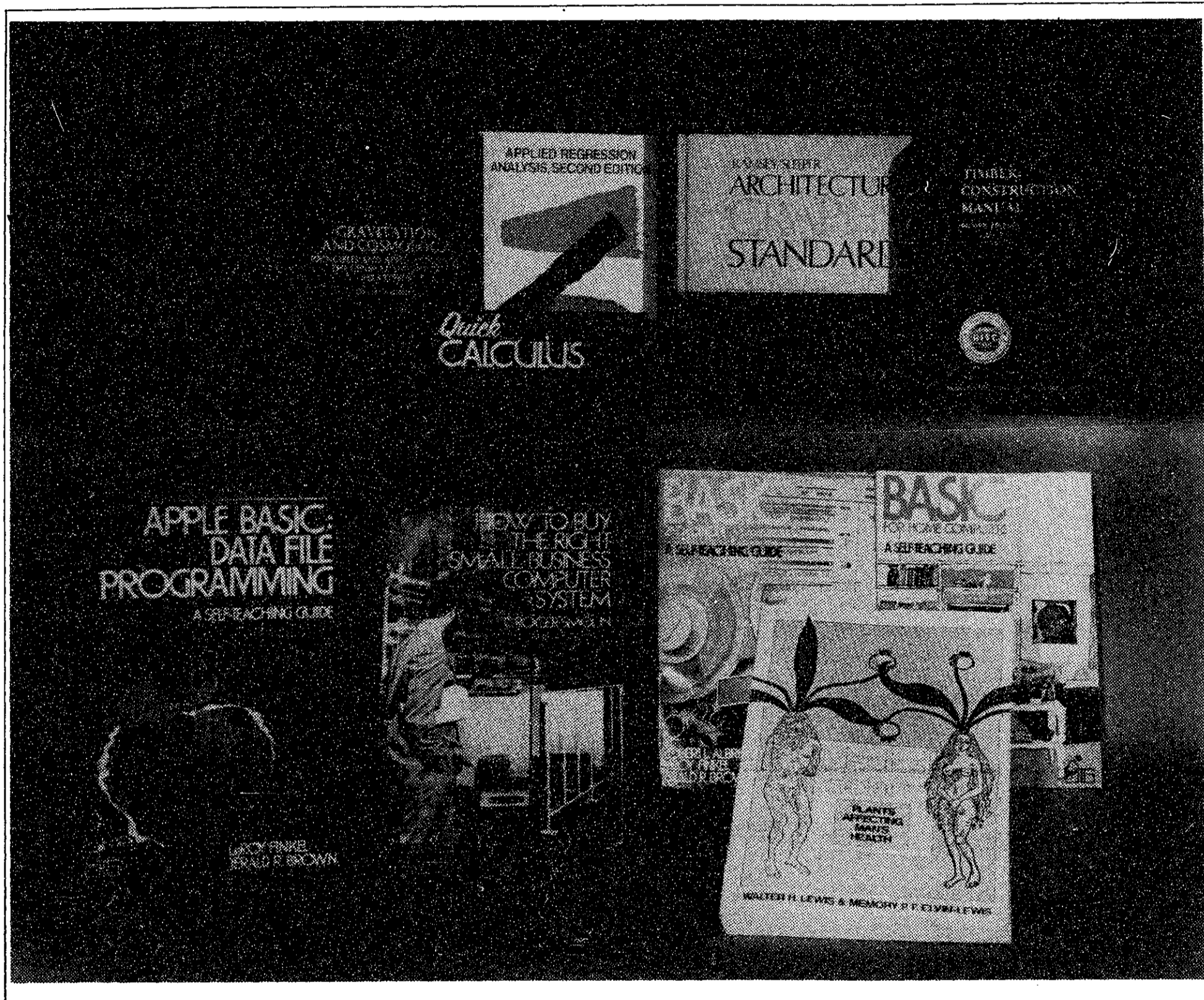
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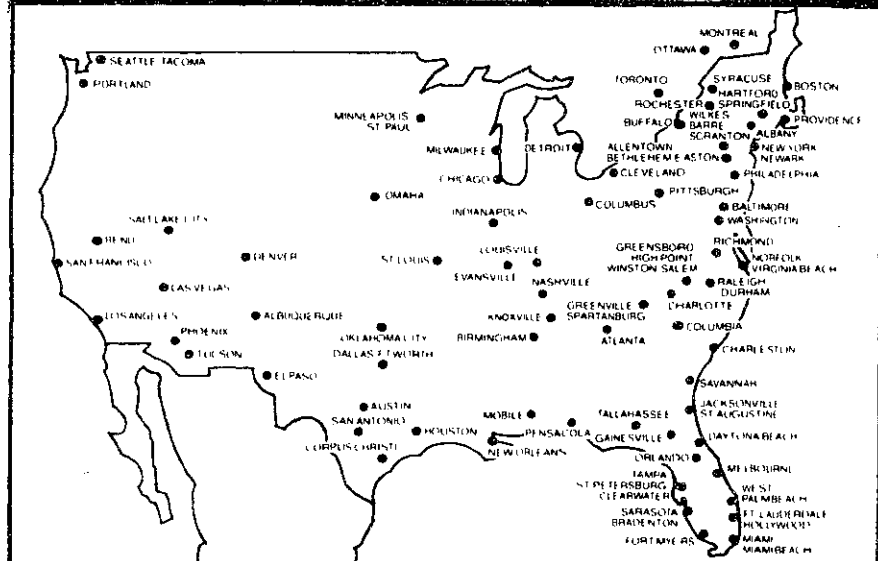
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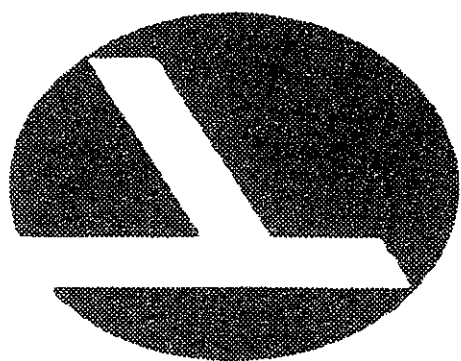
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# UA News

## Setup Meeting Thursday

If you care about pass/fall, freshman grades, or course evaluations? Come to the Student Committee on Educational Policy meeting this Thursday (7:00pm in Room 400 of the Student Center). Next year's officers will be elected.

## Doughnut Stand Committee

Actually, they only need a chairperson to head a committee to investigate modifications to the Lobby 7 doughnut stand. They'd prefer someone who'll be here this summer. If you're interested, come to the elections Wednesday at the 84 Meeting, 7:30 at Delta Upsilon.

## Will Elect King

## Which Reminds Me...

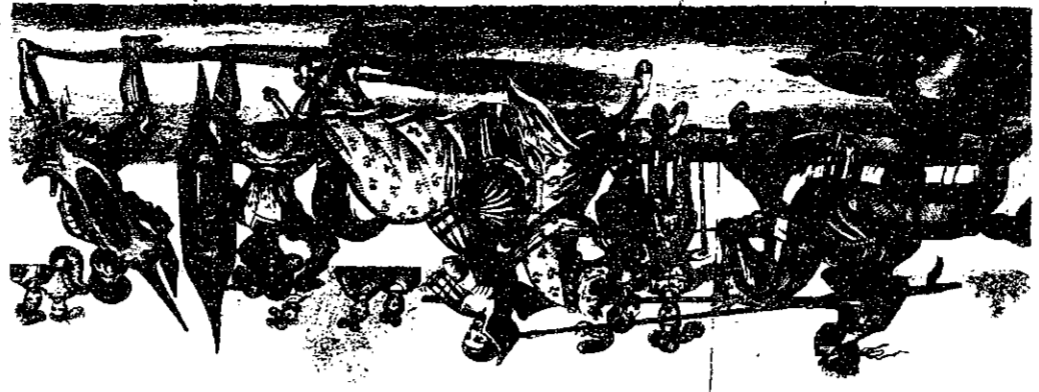
The very last '84 Meeting (for this year, sigh...) will be held this Wednesday at DU (526 Beacon St.) at 7:30. The Doughnut Stand Renovation and the fall beach party will be discussed. Take a break from studying and help your class. New members are welcome.

## Residence/Orientation 1982

If you'd like to come back early next fall and welcome the class of '86, you're definitely needed! Clearinghouse, Parents' R/O, R/O Center and other activities all need plenty of staffers. Sign up in the UASO (Room 7-103), or contact Ken Dumas (d17138), or Debbie Donahue (x3-6771) for more information.

## Summer Contact Program

UASO attempts to have every entering freshman contacted to answer any questions they might have. If you would like to contact freshmen in the area where you will be working over the summer, drop by the UASO (Room 7-103) and leave your name and summer address.



## Thousands of Homeless

One dollar buys unlimited hamburgers and hot dogs, sandwiches and drinks this Saturday. Go to the pits between the Study Center and the Athletic Center and attack the (almost) free food! Bring your \$1, an empty stomach (your own), and an urge to punt away another day. This event is funded by the SCC, and is open to all MIT students.

## 84 Barbecues:

editor struggled through too many parties and barbecues and therefore, the UA News may appear to be even more incoherent than usual.

## Have a Nice Weekend?

AMIT (Gays at MIT) and the Office of the Dean for Student Affairs are sponsoring an open forum on sexuality. The Gay-Straight Rap will be held in the Bush Room (Room 10-105) on Wednesday, May 5, from 8 to 11pm. All are welcome.

## Gay-Straight Rap

If you have not received an Activities Midway Form, pick one up in the UA Office (Room 401 in the Student Center). Call Sue Berg (d17129), or leave a message at x3-6771 if you have any questions.

## Attention ASA Activities!

If you enjoy playing with beavers? If you are interested in joining the '85 Ring Committee, complete the application in the UA Office. All applications must be in by Friday, May 14. Call Robin Barker (d17261) if you have any questions.

## Submit to Rune

UUNE, the MIT journal of arts and letters will be on sale in Lobby 10 until Friday, May 14. RUNE is also accepting submissions for its 1983 issue. They're looking for graphics, prose, and poetry. Send all submissions to 14E-310.

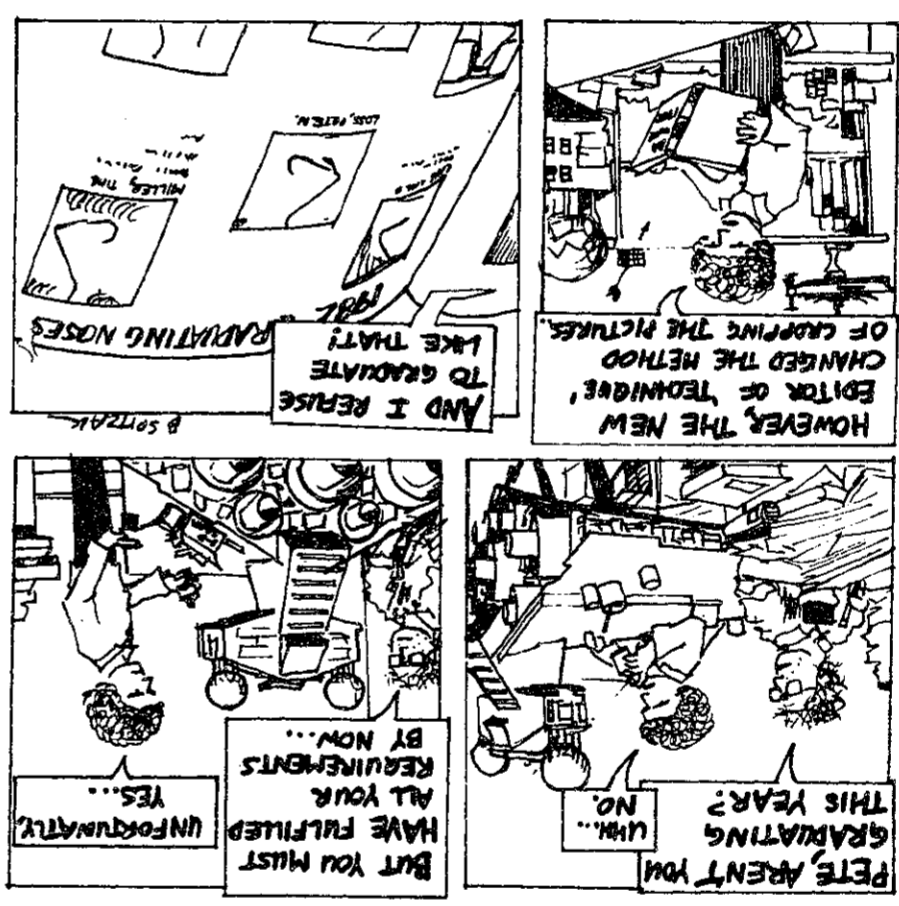
## Your Editor is Pleased

our humble servant is pleased that so many worthwhile news items have been submitted. Keep up the good work, folks! Just remember, your friendly editor will be displeased if news items come in after Friday at 5pm.

This week's UA News is the second in the Guest Designer Series. It was designed by Bill Coderre.

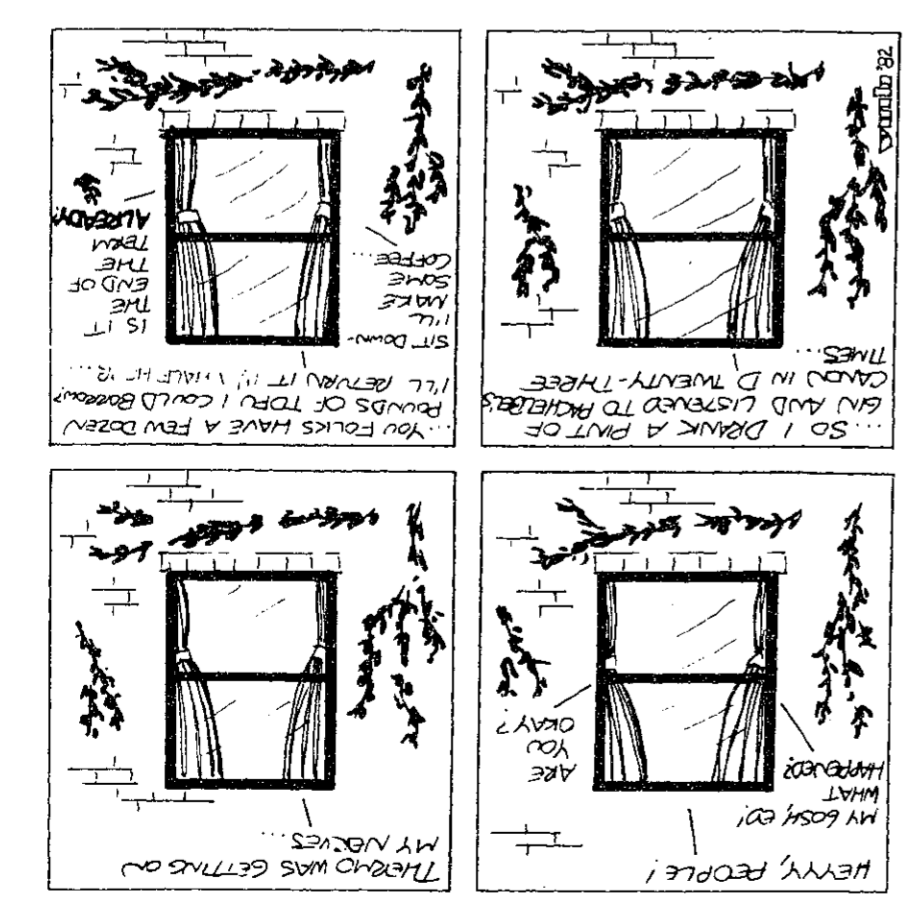
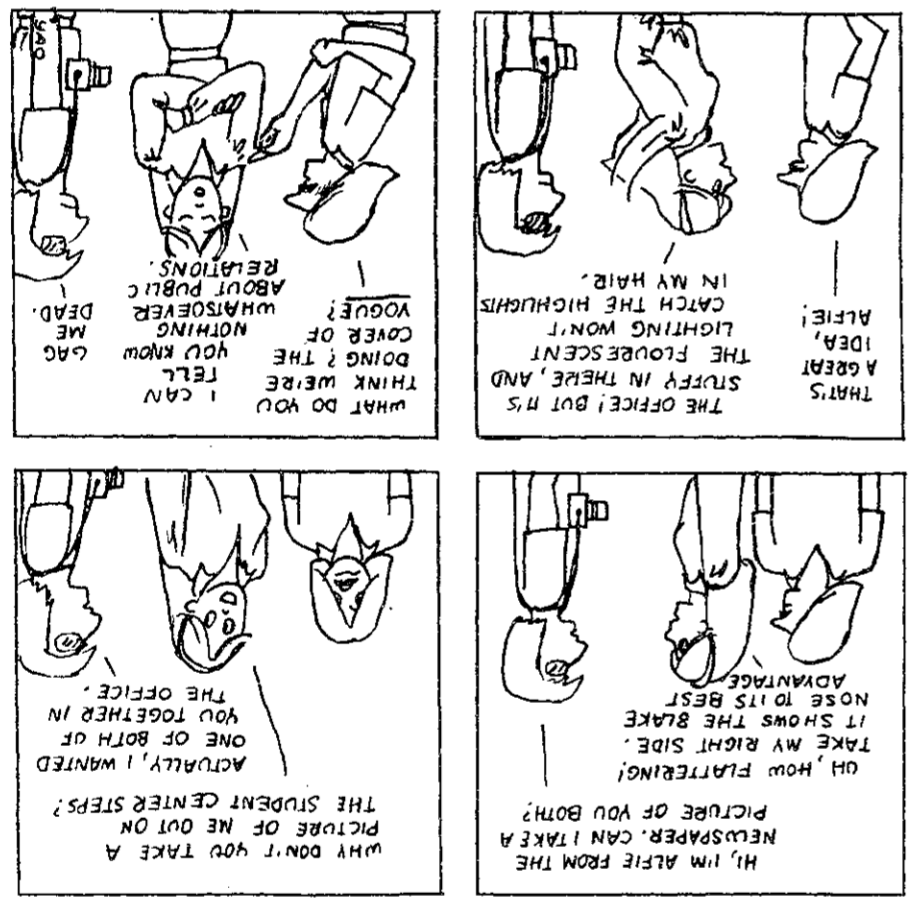
## Space Epic

## The Beaver



## Room 001

## Outside Looking In



## comics

# sports

## sports update

**Softball** — Following a pair of tough losses to a strong Southeastern Massachusetts squad (2-1, in 11 innings), and to Regis (4-3), MIT bounced back to whip Brandeis at Waltham, 13-4. The team continues its four-game road swing today at Curry.

**Crew** — MIT's male lightweights rowed to their second straight win Saturday at Rutgers. The varsity boat (manned by bow Wyatt Daentl '82, Jay Keith '83, Derek Leck '84, Dave Payne '83, Mike Cafferty '83, Dan Chernoff '82, Randy Schweickart '83, stroke Russ Murphy '82, and cox Steve Carroll '84) defeated the Rutgers shell by four seconds, with Columbia third. The junior varsity and frosh boats also won their races. First-year coach Bill Rubin says the boats have made good progress over the season, and both the varsity and frosh crews have a chance to win the upcoming Eastern Sprints.

An unbeaten Boston University women's crew won the Smith Cup hosted by MIT Saturday. MIT's women finished third in that race, while the first and second novice eights wound up third.

Dartmouth's second heavyweight eight edged MIT on the Charles River Saturday. The Green won the 2000-meter race in 7:23.0, while Tech crossed the line in 7:24.8.

**Baseball** — MIT enjoyed a fine weekend, winning four out of the five games played. The Beavers pulled their record up to 9-8 in the process.

Mike DiChristina '85 (1-3) hurled a one-hitter against Clark on Friday, as MIT rolled 7-1. Todd Huffman '83 was big man with the stick, going 3 for 5 with 4 RBI, including a three-run homer in the fifth inning.

MIT split a doubleheader with WPI on Saturday, taking the opener 4-3, but dropping the nightcap 6-2. The first game was an extra-inning thriller. The score was knotted at one after seven innings (NCAA doubleheaders have seven inning games). WPI struck for two runs in the top of the eighth on a single, a walk, and a double off starter and winner Al Fordiani '82 (2-2).

Vinnie Martinelli '85 and Ed Wilcox '82 got on on errors leading off the bottom of the inning, and DiChristina singled to score Martinelli. Steve Kosowsky '83 and Chuck Souter '82 struck out. First baseman Steve Williams '82 came through, however, crashing an opposite field triple to right, scoring Wilcox and DiChristina to win the game.

In the second game, Dan Ferguson '85 (3-2) gave up three runs in the first inning, and the defense surrendered two more in the second. This initial deficit provided a hole too deep from which to climb.

Sunday saw the Beavers sweep a twin bill from the hapless Red Knights of St. Francis (UNE). Mike Snyder '83 (1-1) tossed a five-hit shutout, striking out ten, as MIT romped in the first game 8-0. Kosowsky and Huffman both blasted solo home runs.

The second game degenerated into an orgy of Beaver scoring, as MIT tallied ten runs in the first three innings enroute to a 14-3 trashing. Dow Hardy '85 (1-0) scattered four hits in five innings, and Eric Banks '84 mopped up to earn a save. Martinelli and Dale Rothman '84 both had good games. The former went 2 for 3 with two walks, three runs scored and an RBI triple. The latter walked three times and scored twice.

# Hey, pitcher can't pitch. . .

By Eric Fleming

There is more than one pitcher who writes columns. Robert Malchman chronicled the demise of his pitching career on these very pages, and not to be outdone, I tell of another such stint. I speak now of my slow-pitch softball career.

At this point, I'm sure there are those who ask, "What's so big about slow-pitching a softball? All ya gotta do is lob it up there, and let them hit it." Well, my uninformed friends, after watching numerous games and pitchers over the last ten or so years, it's a little bit more involved than that.

I began by watching my father pitch when I was a kid. I always thought he was a good pitcher; of course, not too many ten-year-olds will tell their dads they were bad at anything. When I started to pitch, I attempted to imitate his style, like all good sons do. It didn't work. In my first game at MIT, I was shelled, and lasted only two innings.

After some thought, I decided to develop my own style. I also

noticed what good pitchers did: throw with a high arc. "Flat" pitches are easier to hit because the chances of "topping" (which results in pitches being beaten into the ground) or getting under the ball (leading to pop-ups) is reduced. In short, line-drive pitches mean line-drive base hits. Good hitters will usually get their shots no matter how one pitches, but a good arc turns weak batters into outs.

A good arc also enlarges the strike zone. Good umpires (bless their souls) will often call pitches that cut across the back shoulder for strikes. I've seen four batters called out on such a pitch: I love to throw pitches as high as possible, and watch 'em drop. Batters have some mighty strange looks when they're called out on strikes.

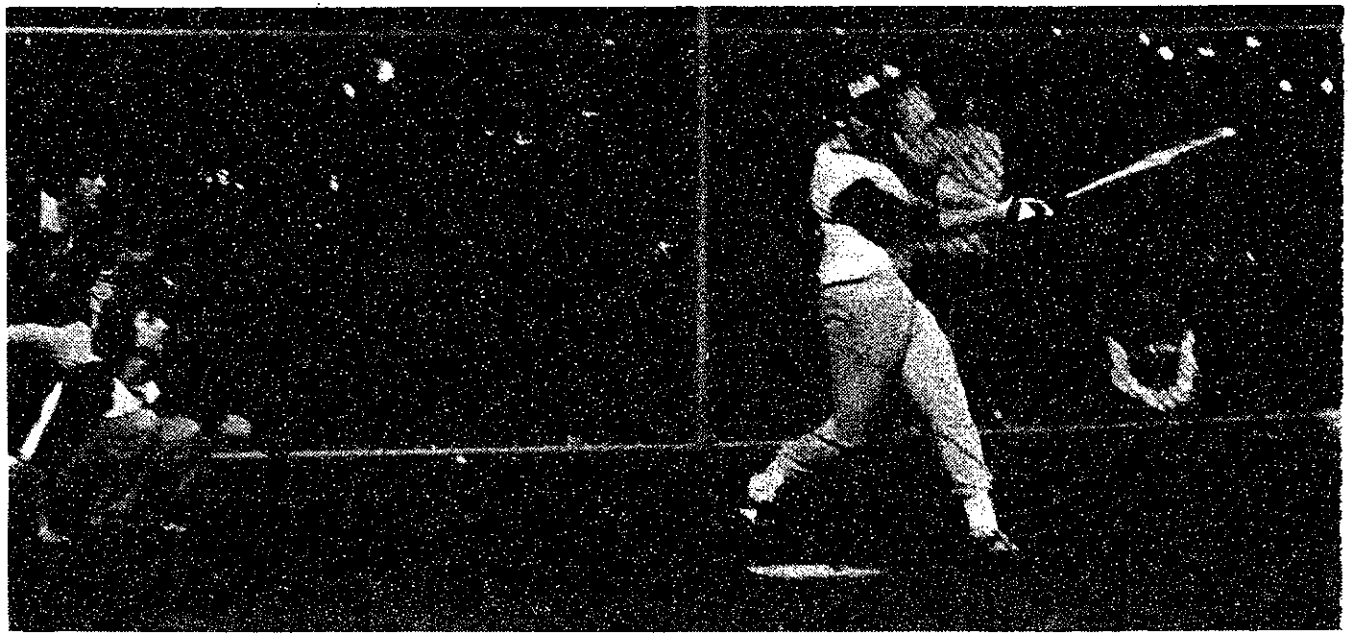
Fielding is an important part of being on the "mound", for two reasons: to save your team a couple of runs, and to save your hide. When you're only 46 feet from home plate, and daring the batter to hit the ball, you're bound to see a number of tosses come back to

haunt you. Therefore, you have to be ready. A high arc gives a pitcher just a little more time to get set (I usually do it by moving a few steps back). Backing up throws, covering home, and positioning fielders are all important while pitching, and may mean one or two runs a game.

Unfortunately, there is no designated hitter in softball. I could use one, since I have been rather wimpy at bat this season. I've hit only a couple of shots I could be proud of, and I've had the dubious distinction of going down swinging — a "faux pas" in slow-pitch softball.

This year I've been pitching C-League, as well as a couple of games for my floor in the Burton House tourney. I feel confident enough in my pitching to look for an A or B-League team next year. Of course, I'll have to get rid of my "D-League" bat, but if I work at it, I think I can be a good hitter.

After all, the only thing pitchers do is lob it up there and let me hit it.



Glenn's Bar & Grill defeated Silvano's Bar & Grill last night in A-league I.M. Softball action. Photo by Ray Henry

# PIZZA KENS WAY

NEW!

**TRY OUR NEW DEEP DISH PIZZA!**  
 Made from a special recipe, our unique pizza dough is fresh-baked daily by our pastry chef.  
 Add your choice of toppings, or try one of KENS "House Special" Pizzas — fresh vegetables, lox & onions, or Mexican. Have hot, delicious pizza KENS way... a slice above the rest!

## KENS

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**Friday May 7**

**12:30 - 1:30**  
THE TECH COOP

### The Enchanted Ring:

The Untold Story of Penicillin \$15  
 By John C. Sheehan THE MIT PRESS

John Sheehan — Professor of Chemistry Emeritus at MIT, holds over thirty patents, including the basic patent on the medically important semisynthetic penicillins. The Enchanted Ring... "provides a full account of the history of natural penicillin as well as synthetic... There is high drama in this lucid story of how a gifted scientist with stubborn faith in himself and his graduate students triumphed in achieving the chemical synthesis of penicillin... after all others failed." — James R. Killian, Jr., former President and Chairman of the Corporation, MIT

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