

The Tech.

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MIT, CAMBRIDGE, MASSACHUSETTS

FIVE CENTS

China talks at MIT: a gathering of experts

Red stability called illusion

By Norman Sandler
"The world ought not be hypnotized by reports that China has returned to stability," says Stanley Karnow, a correspondent for the *Washington Post* and considered by many to be the foremost "China-watcher." Karnow was one of the keynote speakers at the symposium on China held all day Saturday, co-sponsored by the MIT Chinese Students Club and the Center for International Studies.

Karnow spoke on "China After the Storm" and gave a report on present conditions inside China, including the most recent internal power struggle which led to the disappearance of Lin Biao, long-time constitutional heir to Mao Tse-Tung in mid-September. Karnow, the first western observer to spot the power struggle, explained that the rivalries within China's governmental hierarchy is one of the things keeping the country from achieving the stability it enjoyed before the Cultural Revolution.



Stanley Karnow

But spirit seen 'impressive'

By Ken Knyff
Two recent visitors to China stated that they were "impressed by the spirit and high level of competence" they found in the Red Giant of the East. The comments were made by Dr. Paul White (of Massachusetts General Hospital) and Professor Ethan Signer (of MIT) at the morning seminar of Saturday's China symposium.

Dr. White and Professor Signer had been rumored by the BBC to have visited China to treat Chairman Mao. He quickly assured the audience this was not the case; and in fact he had not seen Mao, Chou, or any other political leaders during his stay.

He did, however, visit several hospitals, a child care center, a deaf mute clinic, and various other facilities. Dr. White expressed surprise over the high level of both technology and surgical skill at all these places, but he noted that the Chinese-made lacked some western sophistication. Traditional village doctors are being retrained



Dr. Paul White

Photos by Dave Vogel



Photo by Sheldon Lowenthal

Eng'g Dean supports educational revamping

By Walter Middlebrook
"In the future, MIT must couple engineering studies with economic policies for its students," declares Dr. Alfred H. Keil, Dean of the School of Engineering at MIT. Keil, speaking to the MIT Club of Boston at the Aquarium Restaurant, felt that the whole approach to educating the engineer must be revamped to blend with the times. Keil's speech, entitled "Education of an Engineer," dealt with the many facets of engineering: its past, present, and future, with the focus on the future and how it affects the MIT student. He feels that the engineers of the future must take on the integrating of new modes from old methods of technology.

"Our students must develop good background knowledge and know how to apply it. They must be creative... be challenged." Keil went on to say, "I'd like to see this type of philosophy brought before undergraduate students."

According to Keil, these challenges should cause the engineer to become concerned with the economy of manufactured products, make him question the sensibility of his work, and question the consequences of his developments. This would require the engineer to make a creative approach towards inno-

vative events, and requires exposure to what real industrial technology is. It would be wrong, however, says Keil, to consider an engineering education as a solid background in an engineering science base. One example of the type of question that should be raised by engineers results from looking at slums, remarked Keil. "Instead of thinking, let's get rid of the slums, engineers say let's build low-cost housing."

Just before the end of his speech, Keil remarked that we must make the student understand the problems of labor. Later, during the question and answer period, he said that we must also make society understand the problems of the engineer. He said this in replying to

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IFC to pay for phones after 3 year free ride

MIT fraternities will soon have to pay for MIT extension phone service.

The reason for the change from free service and the new rates the fraternities will have to pay were the main topics of November second's Interfraternity Conference (IFC) meeting at Sigma Phi Epsilon. Eighteen houses were represented at the meeting.

Nominations were opened for next year's IFC Rush Chairman and for a replacement for Treasurer Maury Goodman '72 who intends to resign before the end of the term, but no nominations were made at the meeting.

IFC chairman Harwell Thrasher explained that charges for MIT extensions were dropped three years ago on the grounds that the dormitories were not being charged. In the case of the dormitories, however, the charges are carried within their operating budgets and did not show up as individual charges. Since it has been found that dormitories are being charged, the fraternities will be charged also.

The basic charge for an extension, Thrasher reported is \$2.25 per month. In addition to that, there is a charge for the link from MIT to the Cambridge exchange (\$5.50), a charge of \$3.50 per mile for the connections between the Cambridge exchange and the exchange the house is in, and a second \$5.50

CJAC favors quick creation of proxy panel

By Pete Mancuso

The Corporation Joint Advisory Committee has made some preliminary recommendations on the nature of a committee to be formed to investigate proxy voting by the Corporation and related matters.

These recommendations were made at a CJAC meeting last Thursday night held to discuss the Bowman Report on matters related to proxy voting.

The report suggested that CJAC, or a "CJAC-type" committee, take on the problem of building a mechanism to deal with such questions.

At the meeting, George Thorn, speaking as a guest, asked CJAC, on behalf of the Executive Committee of the Corporation to either take on the responsibility itself, or suggest an apparatus for doing so.

The consensus among the CJAC members was that the work load of such a responsibility would simply be too great. Feelings were also expressed that CJAC had both too little expertise and too many people to do the job properly.

It was thought, rather, that a committee should be appointed by President Wiesner, consisting of members of every branch of the Institute's community.

The matter of the autonomy of such a committee drew a great deal of discussion from the various members. Originally, the suggestion was made that the committee should be a subcom-

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500 offerings set for IAP

With the publication of the Independent Activities Period (IAP) Guide set for Thursday, the MIT community will get its first glimpse of events scheduled for IAP, notes Mr. Joel Orlen, Assistant to the Provost and Chairman of the IAP Committee. The Guide is being distributed to all members of the community and will be on display in each of the IAP information centers.

Each Guide will contain descriptions of more than 500 activities that have been suggested as offerings for IAP. According to Mr. Orlen, "Although the numbers of activities are many, none will be followed up unless sufficient student interest is there." Mr. Orlen strongly stressed the point that students must show interest if they want an activity sponsored.

Mr. Orlen stated that he feels student interest in the IAP has been at a low point. "We've only

gotten a few volunteers to man the information booths and out of all the activities listed in the Guide only a few that we know of are non-affiliated with Institute departments. This might be because students are generating their suggestions to individual members of the departments and they, in turn, are following up on these ideas, and we aren't finding out about these or there definitely isn't any student interest. Right now, we are in desperate need of student volunteers to put up the IAP posters and keep up the notebooks."

On the brighter side of things Orlen points out that there have been some students who have taken the initiative and tried to help get things rolling. "In particular, William Orchard '74 and Dana Clouatre '74, who are members of the Student Committee on Education Policy (SCEP), the IAP Task Force, and the IAP Policy and Finance Committees, have done a great

deal of work to help us. We've also had the assistance of former student Jon Sachs IV '74, who designed the poster that's being posted all over the campus."

Financially speaking, requests for funding have reached the \$10,000 limit, but so far nothing like the two or three times that figure that Mr. Orlen expected. "We are still accepting money requisitions and most of the money won't be allocated until Dec. 3. Our policy is that the most worthy proposals may be funded, that is, until the money is used up."

Some ideas that the IAP Committee feel are really interesting this year are classes on occult sciences and astrology, the formation of a German House (which will be quite similar to Russian House), courses on winemaking and fermentation, yoga exercising and meditation, scuba diving, and glass blowing. Each day more and

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Mao: 'violence is justified'

By Storm Kauffman

In the "Chinese Society and Internal Politics" seminar last Saturday, Professors Thomas Bernstein of Yale and Ezra Vogel of Harvard concentrated on the Maoist anti-elitist activities and the reorganization of government systems after the periodic shakeups.

Bernstein has studied the Chinese system of sending a large number of urban secondary school students to the country to work as peasants, possibly for life. A haphazard program until 1967 and the Cultural Revolution, it is now applicable to all of the upper echelons as even the present political leaders are encouraged to sever elitist expectations from education.

There are probably several reasons for this action. With a low level of concentration and specialization, there is undoubtedly a shortage of urban jobs. Philosophically, this reduces the capacity of the current adult elite from passing on opportunities and privileges to their children. There is a slight possibility that the Chinese leadership also wishes to develop the backward areas.

Such a developmental plan is highly unlikely, as the students are the ones who must adapt to their circumstances. Although used to working hard in school oriented jobs, they find the peasant life stunningly tough and rigorous. Though the political elite is subject to this also, it is usually the children of the old intellectual and upper classes that are singled out. Some fail to adapt and flee to Hong Kong, where Prof. Bernstein has interviewed many. They feel bitter, as if it was the end of their future; they don't believe that if they had worked well they might have been allowed to return to the city.

Some do go on and, when they have adapted, may be sent back to school to learn skills that will enable them to take higher positions in the village. Rarely are they allowed to leave — those that do advance or move to the city are almost inevitably of the working class. Although the refugees may have valid grievances, it must be remembered that they are the ones who failed to fit in — the misfits.

The peasants, of course, look

at it from the other side. As the state quota — the amount of produce which the collective must sell to the state at state prices — is not reduced (on the basis that the added mouths of the students are more than compensated for by their added arms), the peasants only consider whether the student does hard work.

This system may waste some talent, but the Chinese are always on the watch for the exceptional students. As a rule, the worker's son has a much better chance of being allowed to continue his studies, but in a country the size of China there are more than enough lower class people to supply a good number of intellectuals.

Vogel looked at the results of Chinese political agitation and some of its organization. Every two or three years, in what the Chinese refer to as a wave, there is a dramatic effort to make a major breakthrough to prevent rigidification and a lapse back into elitism.

Mao himself stated that violence is sometimes justified, and Chou admitted that there were at least one hundred thousand casualties in the Cultural Revolution. It is believed that the purge of 1954 against the counter-revolutionaries left some eight hundred thousand dead.

These purification programs follow a basic pattern. First there is a major publicity (or propaganda, if you prefer) campaign to get the people stirred up. Then a mass mobilization is organized to criticize the wrongs of the old society. The smear campaign becomes more and more specific until individuals and several major targets are singled out. A direct overt purge follows in which people are accused and then paraded. To control and defame those who aren't following, the workers are encouraged to look for any who can be identified for having one of the unacceptable traits and to bring them to the attention of all.

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Signer, White examine changing China scene

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in modern techniques, a program which promises to provide an adequate supply of doctors for the country.

This same respect for tradition guides many of the new fields being investigated by the Chinese. Dr. White repeatedly referred to one traditional field in particular, acupuncture, as being ripe for Sino-American cooperation in research. This use of pins and electricity to deaden certain selected parts of the body has many advantages, eliminating certain post-operative complications caused by the use of Western anesthetics.

Professor Signer, a biologist, spoke of the changing role of science and the scientist in China since the cultural revolution.

The new projects normally involve the researcher in apply-

ing to practical situations the research he has been doing. Signer told of a botanist who had been doing general research on plant behavior and moved to a commune to work on developing more productive crops for that area.

In the same way, researchers have been developing much stronger ties with industry. This contact with the workers is also part of the attempt to eliminate the elitism of university people and to change the role of the scientist to fit the slogan "science to serve the people."

Both speakers were very impressed by the extent to which China really is a "people's" republic. Nevertheless, they both reported wage differentials among various types of workers almost identical to those found in the US.

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China-US relations: past and future

By Storm Kauffman

Professors Ying-Mao Kaw of Brown University, Ishwer Ojha of Boston University, Peter Tang of Boston College, and Daniel Tretiak from York University looked largely at the events of the past and upcoming year in "US-Chinese Relations."

Kaw began by stating that "1971 is undoubtedly a dramatic year in Chinese-American relations." The current hatred of the Chinese for the Americans can be attributed to numerous things: U.S. involvement in the Chinese civil wars, the contempt of late 19th century Americans for the Chinese, the middle kingdom dislike of foreigners, and the ideological dispute. Mao emphasized that China has either friends or enemies and the U.S. can only fit into the enemy category in such a black and white consideration.

The Chinese have not really "been aware that the American paper tiger has nuclear teeth." They believe that if they push hard and long enough the capitalistic system must collapse. We have misinterpreted the Chinese as aggressive and expansionist. Much of their bravado is merely rationalization of their policies.

The US since World War II has taken a negative attitude to the Communist challenge, and the basis of this action has been fear of Communism. Our technical and economic aid to other countries is based on this same fear. Since 1949 we have tried to contain and isolate China with our Asian treaties, embargo, UN nonrecognition policy, and aid to Taiwan.

In Chinese foreign policy, China is for the first time a great power and is determined to claim the respect it feels it deserves. It demands that it be allowed peaceful coexistence, freedom from interference in in-

ternal affairs, free trade, and recognition of its sovereign rights.

Kaw suggested that the audience try to imagine the positions of the two countries reversed with guerilla war in Mexico and China supporting a rebel government in Hawaii. Such a picture does look threatening, and so it must look to China in Vietnam and Taiwan.

The US, as the stronger, should be the one to take the initiative in easing tension, but it appears that China was the one which tried. Prof. Kaw doubted that there would be much real improvement in relations until the US made a basic shift in its attitude of negative anticommunism to some sort of positive and realistic approach. The least likely to change of all US policies is that of military containment.

1971 Events Overdue

Ojha began by agreeing that 1971 was a prestigious year but that it was eighteen to twenty-four months overdue. In 1969 the US was already taking steps to ease restrictions and a year earlier had realized that a war cannot be won with an antagonistic populace and that a diplomatic bridge to the Asian mainland was needed.

"America has had no Asian policy for the last twenty years." We couldn't find anyone to replace the Nationalists as the counterweight to Communism although we tried in India and Japan.

Since the early 1960's the Soviets and Chinese have been perpetually in conflict. A rapprochement with either the Soviets or the Americans was necessary; the Chinese decided that it was foolish that we continue to pretend to ignore each other. As they came out of the Cultural Revolution, the Chinese were

greatly frightened by the Soviet invasion of Czechoslovakia. Thus, the US and China would probably have gotten together much sooner if not for Cambodia and Laos.

The Chinese had been worried about the possibility of Vietnamization succeeding but Laos convinced them that they had no need to be concerned. The Nixon policy convinced them that the American President would no longer overstep Congressional orders.

Ojha then looked at some of the American allies in the area — those that would share the US problem of altering their policies. Japan presents the major possibility of crisis as it has been following the artificial expedience of ignoring Asia and tying itself to the US. It has up to now avoided serious decisions but may soon begin low level talks with China, which has dropped all of its unreasonable demands such as billions in reparations from World War II. Japan may meet its obligations or it could move away from the US toward the Soviets.

Ojha predicted that as China moves more and more into world politics, it and the USSR will become the powers in the Middle East and Africa.

China: Pillar of Communism

"China has become the savior and pillar of the international Communist movement," Tang stated. Further, "China is the challenger to the US led imperialism and the Soviet led revisionism. China is dedicated to the idea of a Communist world of Communist peoples." Nixon is being allowed to visit because his presence indicated the possibility of peaceful coexistence.

The basis for normalization of relations with the US will be the same five principles that

have been included in past treaties with other nations (enumerated by Kaw). For good will to exist, these conditions must be satisfied.

The first issue will most likely be that of Taiwan. China desires to achieve territorial integrity; it is determined to liberate the island. All that prevents the successful completion of this great goal is the misplaced US presence. China has been careful not to provoke an armed conflict with the US but it has felt wronged and expects that Americans will not oppose the liberation of Taiwan and leave it to the Chinese. The US will be asked to remove its military forces; if we agree "then normalization will come as a matter of course. The Nixon trip is de facto recognition of the People's Republic of China."

In his concluding remarks, Tang stated "As all Christians know, God permits the existence of all temporal authority — including China."

US-China in the Future

Tretiak, as Co-chairman of the Committee for a New China Policy, made his feeling, that the People's Republic of China is the sole legitimate government, known at the outset. He then

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CJAC favors quick creation of proxy panel

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mittee of CJAC. This would put CJAC in more of a position to give advice. It would also bring the workings of the subcommittee back to the community in the form of the CJAC forum. Lastly it would assure good communications between the committee and CJAC.

The major arguments for autonomy for the committee were that it would need sweeping power in some areas if it is to do its job properly. Furthermore, it is a hindrance to such a committee if it finds itself responsible to CJAC for everything that it does. It could also put CJAC in an embarrassing situation at times.

In a related matter, it did not seem that the question of the extent to which CJAC should provide guidelines for the committee had been entirely settled either.

What did seem to be perfectly agreed upon was that the committee should be appointed just as soon as possible. This is essential if they are to accomplish any significant work on this year's proxies. The questions of appropriations also compels expedi-

Red stability called illusion

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olution of 1966.

After speaking in depth of the current instability within China, Karnow turned to the question of future stability for the country, particularly considering the recent entry into the United Nations and President Nixon's planned visit to Peking before next May.

He said that he thought the "welcoming of China into the international community will help to stabilize the nation, as will the recognition of China... because of the need for technological and economic aid." Karnow explained that China thinks "we're getting out of Vietnam, and they are quite convinced we have been defeated and are being forced to withdraw" so Vietnam will not be a crucial issue when Nixon does go to Peking. He added that the "Chinese don't like the North Vietnamese and vice-versa."

In responding to questions after his speech, Karnow implied that the Chinese are very concerned about their future relations with the rest of the world, including the United States. He said the main concerns of the Chinese are their own internal problems, their situation with the Soviet Union which is building up her forces on the Sino-Soviet border, and future relations between Mainland and Nationalist China (Taiwan).

Karnow said that talks between China and the U.S.S.R. "are going nowhere," which is complicating China's relations with many of her neighboring countries. He added that the fear that the Chinese hold of the Japanese re-militarizing may lead

to improved U.S.-China relations, as right now the United States is primarily responsible for the defense of Japan, where otherwise Japan would most likely develop a nuclear arsenal, and in his words, "China would rather deal with us than with Japan."

Turning to the complex situation between Mainland and Nationalist China, Karnow said that there are two alternatives for Taiwan. The first is that "China makes a political deal with Taiwan after the death of Chaing-kai Shek, where Taiwan may remain autonomous but would be associated with the Mainland," or that there would be an "independent Taiwan,

where the leaders of Taiwan come to terms with China," a prospect which the Chinese are worried about, as they still claim to represent the people of Taiwan.

Finally, in predicting the future position of China on an international scale, Karnow commented that "China is not a power and will not be in the sense of the United States, the Soviet Union, or Japan because of its population versus availability of resources, and China is not an actual threat to the United States" as we have heard in the past. He concluded by predicting that "China, not the U.S. will turn out to be the real 'Paper Tiger.'"

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NOTES

* All students should obtain an examination schedule at the Information Office, Room 7-111. Examinations not listed or a conflict in examinations (such as two exams in the same time period) must be reported to the Schedules Office, E19-338, by Wed., Nov. 24.

* The Julliard String Quartet will perform at a memorial concert for the late Professor Gregory Tucker in Kresge on Sat., Nov. 20 at 8:30 pm. Free tickets are available by mail only from the Music Office, 14N-233B. Limit of two tickets per person.

* "Which Way Vietnam?" A panel discussion with Noam Chomsky, Cynthia Frederick, and Ngo Vinh Long followed by a meeting with Peace Action Groups on what can be done, is being sponsored by the MIT Peace Action Coalition in Kresge tonight (Tues.) at 8 pm.

* BATOM SOCIETY, MIT's musical honorary club, will hold its first meeting of the year tomorrow (Wed.) at 3:15 pm in the Musical Clubs office, W20-439. Anyone interested in any facet of music at MIT, organized or unorganized, is urged to attend or call X6294 or d19-730 if interested.

* Students and faculty members interested in more effective use of the major reference tool, "Science Citation Index," are urged to attend one of two User Seminars to be conducted by Robert H. Shank of the Institute of Scientific Information, on Tues., Nov. 23: at 9:30 am, in Hayden Library Conference Room (14S-0615); at 2:30 pm, in Barker Library Orientation Room (10-500).

* "Goodbye Maya, Hello God," a musical play in praise of Meher Baba produced by the Society for Avata Meher Baba, will be performed in Paine Hall, Harvard on Sat., Nov. 20 at 7:45 pm. Admission free.

* Jean Mayer, M.D., Professor of Nutrition at Harvard and member of the Center for Population Studies, will speak on "Nutrition in America and Abroad" tomorrow (Wed.) at 8pm at the First Parish Church in Cambridge, 3 Church St., Harvard Sq.

* MIT Zero Population Growth will be meeting in the Student Center, Room 473, on Mon., Nov. 29, at 7:30 pm.

* The Undergraduate Association is sponsoring a meeting open to all students, at which members of various decision-making factions around the Institute (e.g., deans, faculty committee chairmen, etc.) will be present. The meeting will have an informal, question-and-answer structure. It will be held in the Student Center next Tues., Nov. 16 at 4pm. Refreshments will be served.

* BICYCLISTS! Anyone interested in serving on a short-term committee on bicycles and bicycle parking at MIT, please contact John Kryzwicki at Undergraduate Association Office, W20-491, X9798.

* Freshman: Institute Froshcomm is now functioning (more or less). If you are interested in improving this place from the freshman standpoint, come to the froshcomm meetings, every other Wednesday at 7:30. The next meeting will be Wed., Nov. 17 at 7:30 in Room 400 of the Student Center, and activities for the near future will be discussed.

* ERC Colloquium: "A proposed Open University for Massachusetts." Introduction by Jerrold Zacharias, MIT; panel discussion with Edward Moore, Chancellor of Mass. Board of Higher Education, and members of Education Development Center, Education Research Center, and MIT faculty. Wed., Nov. 17, 12 noon, Room 1-390.

* Graduate or undergraduate students are needed for community health project. An interdisciplinary team of law and medical students and their faculty members has been set up to develop a health service in Roxbury. Students are needed for surveys, analysis of need of facility, location and design. Three consecutive hours, 2 days a week are necessary. Starts Dec. 1. Call Jim King, X4523. Credit might be possible.

"Education": how to reform it...

By Robert Fouer

Most people who have been here long enough to remember Mike Albert don't recall him as a particularly avid educational reformer. They remember his image at the height of his "power" — a radical "leader" who rose with his election as UAP in the spring of 1969.

Jim Smith's meteoric career paralleled Albert's, and he isn't often talked of as a partisan of educational reform either. After running second in the UAP race, he became locally famous as editor or a left-wing campus newspaper.

Yet Albert, who had an exemplary academic record, spent much of his time that spring advocating a rather detailed scheme for the elimination of all subject requirements. And Smith, who left without graduating (reportedly he never finished freshman physics), actively pushed his plan for establishment of a B.A. degree.

There's a facile lesson in all this: if Albert and Smith, and many less prominent students like them, had kept their attention on educational reform, instead of espousing political activism, their efforts might have resulted in a lasting contribution to education at the Institute.

There's an easy rejoinder, too: they never had a real chance. After a proposal to abolish the Institute chemistry requirement provoked a narrow-minded and irrational debate in the fall and winter of 1968 (and eventual narrow defeat), the President let it be known that further academic changes would be actively discouraged until a full-scale review of the educational process could be mounted.

The truth of the matter, no doubt, lies somewhere in the middle and is harder to explain. It might help to keep in mind, however, that in the two years in which the Commission on MIT Education has come and gone, and has been succeeded by a faculty Task Force on Education which has all but decided what changes will actually be made, there have been no student reformers worth remembering.

Representation challenges the elite

In a few weeks the Task Force's report will be finished and released for comment. The full-scale review will be over and implementation, hopefully, will begin. In the meantime, it is worth taking a look at how those of us who paid for what was called "education" participated in its review.

In the traditional way of analyzing an educational system, student participation is no problem: it does not exist. Typically, a group of about half a dozen perceptive and highly regarded faculty members is charged with the investigation, and they are expected like all good educators to seek out student feelings before reaching their conclusions. They are told to approach their charge with open minds, so that ideally any student's viewpoint is considered as seriously as any of their colleagues'. In the end they write a unified report which deals with everyone's concerns, and may serve as the basis for specific actions.

The definitive example of this process at MIT was the Lewis Committee of twenty years ago. Its report showed exceptional insight into the post-war situation of MIT, while proposing the present school-and-department organization of MIT academics. It was amazingly prescient, too, foreseeing problems in humanities instruction and government-sponsored research, which, unacted upon, came back to haunt us in the late sixties.

"Elite" committees do sometimes work, then, and there were several more here in the following decades which were responsible for various degrees of change (a report of the Committee on Curriculum Content Planning [CCCP] in 1964, for example, led to overhaul of the general Institute science requirements). But in the absence of evidence that groups of different composition which might not do equally good work, all arguments for leaving change in the hands of the senior faculty boil down to platitudes about the wisdom of age and experience, while arguments against the concept of elite committees are seldom more than invective on the wisdom of youth and the follies of the old who are set in their ways.

It is not surprising, then, that direct student participation in decision making came, not due to any new failing in the

established system, but through a change in attitude. The classes of '69 and '70 had a different view of their participation in things, and the faculty were no longer so sure of their position.

It is hard to pin down the cause of this new attitude, which was also no doubt a cause of the more obviously political activism on campus 1968-1970. Perhaps the agent was change itself, or more accurately the acceleration of change, and its effect on serene decision-making. Surely the Lewis Committee's report was obsolete — the Commission was seen as its successor, after all — when disciplines no longer remained within the boundaries of departments and -schools, and the government (war) research issue had come to a head. Even the CCCP reforms, not five years old, were being obsoleted by new experiments.

In any case, student participation in decision-making was already a strongly established principle by spring, 1969, though it had yet to play an important role. In the previous year or two student memberships had been established on virtually all faculty committees; the election which made Albert UAP also approved a referendum changing student government to provide specific means for nominating student members. More militant action (a sit-in in which Mike Albert was prominent) had won open faculty meetings.

Students also claimed an equal place in opposing war research in the special labs. Thus emerged a Review Panel on Special Laboratories (Pounds Panel) whose 22 members included four students. It was the prototype for the Commission, which also had four students among its dozen members.

The Pounds Panel was an opposite of the elite study groups: it was important not so much that its members be highly esteemed as that they be widely representative of the factions in the matter. In the turmoil that prevailed, this may have been the only credible solution. But the Panel's recommendations were so weak and were appended by so many dissenting views that the issue began to die and the administration did what it pleased; MIT's philosophy in the face of war research is still unsettled.

Meanwhile a Planning Committee for the Commission released its report in August 1969, before its members could see the Pounds Panel's fate, and before the Panel's only undergraduate member

became a radical (who was later jailed for disrupting a classroom). It recommended the Commission be a representative body not unlike itself: 10-12 members, the standard four students.

Five members of the Planning Committee dissented, recommending a smaller Commission in the manner of an elite committee. Not surprisingly, only one student was among them. The report was written by Prof. Kenneth Hoffman, whom President Johnson later appointed chairman of the Commission on MIT Education.

A flop and an encore

Given this scenario, the Commission's failure to live up to its billing as the "new Lewis Committee" can be readily predicted.

Its complete inefficacy, however — its failure to produce any final report, or even one recommendation which could be implemented without substantial change — can only be explained by its members' incompatibility and incompetence in the given situation. One staff member who quit in disgust describes a meeting where Commission members argued at length about the chairs they would get in their offices; many other staffers ended up glorified secretaries. People with ideas — students included — were often put off by the Commission's attempts to "stimulate a dialogue" by means of lavish graphic displays and reams of transcripts, which appeared to take the place of offering to shut up and listen to individual views. A statistical profile of MIT for members' benefit was not finished in time to be used.

This state of affairs was not lost on the administrators who had conceived and financed the Commission and selected its members. They had sought a sweeping review of MIT education and a call for change — MIT had become great by staying in the forefront of as many areas as possible, hadn't it? — and were going to get a divided and aimless report which, like the Pounds Panel's, would lead to apathy and the death of the issues. In the case of the special labs, this was a desirable eventuality, but here it was disaster — a sure return to ineffective, piecemeal reform, just where it had left off.

So while in public the Commission's members were thanked and their work duly discussed, behind the scenes the salvage operation began. A Task Force on Education headed by chairman of the faculty Hartley Rogers was announced last spring, just before the Commission was scheduled to disband. Ostensibly the Task Force's purpose was to continue the Commission's work to the point of presenting specific proposals; Prof. Rogers still publicly insists their work owes much to the Commission's First Division Proposal.

However, it's an open secret that the First Division proposal had little chance of success in its original form; the Task Force has transformed it into an administrative office of a "Dean for Undergraduates." It is also expected to propose expansion of student involvement in research (similar to what is done through UROP now) so that it may occupy as much as a quarter of a student's time as an undergraduate and satisfy certain requirements; and a separate division of education research will be suggested.

Significantly, the Rogers Task Force is a return to the elite committee method of education reformation. Its six members include one Commission member (Widnall), one department chairman (Press, XII), one assistant department chairman (French, VIII), one dean (Snyder), and a full professor from an engineering department (Gallagher, VI). There are no students; a student advisory group was formed, but at its last meeting only one member showed.

At present it seems clear that any educational reform in the next year or two will come out of the Task Force's work; and it is certain that students will have no direct say in implementation. For the record, students' exclusion is justified because it would make presentation of the specifics to the faculty more difficult; but most of the changes will be administrative, requiring no faculty vote. (Significant faculty disapproval would be hard to ignore, of course, and much harder to ignore than student disapproval.)

So we have a new Lewis Committee

a corrasable thesis?

At the last meeting of the Committee on Graduate School Policy the Graduate Student Council proposed a major change in the requirement for the archival copy of graduate theses. Citing the financial burden of the present standards for a paper copy, the GSC asked that the theses be kept in a microform. This would eliminate the complications of producing an archival copy on acid-free paper with corrections made only by erasure and hand-drawn formulas only in India ink.

The CGSP passed without a dissenting vote the proposal of the Graduate Student Council "that the present requirements for submission of a paper copy or archival quality be replaced by the requirement for submission of a paper copy from which archival quality microform can be made for all graduate theses beginning with those submitted for graduate degrees in February 1972. The cost of the microfilming to be borne by the student and the present requirement for the second (Library) copy shall remain unchanged."

The effect of this change, though requiring the first copy to be clean, complete and legible, allows the use of ordinary bond paper, including Corrasable Bond, permits corrections to be made by Snowpake, Correctape and similar shortcuts, allows computer printouts, and drawings not to require the use of India ink. The rules for margins and other typing instructions remain the same as do the rules for the second or Library copy. These rules are not changed by the CGSP vote. Further detailed instructions will be issued by the Graduate School Office in the near future.

after all. Its members are no newcomers to educational innovation, though, and their report may yet stand up to Lewis's 20 years ago.

Are elite committees better by nature than representative ones? Incomplete evidence says yes; but groups are no more than their members can make them, and perhaps the results might just as likely have been otherwise with different people in different circumstances. Perhaps, too, the distinction is not so great as it is made to seem here: might not students serve on a small decision-making body?

It may be that the days of all-faculty task forces will soon be over. The relative calm of the last year and a half has not put off the acceleration of change, and perhaps only a full-fledged student member will be able to represent those whose youths are decades removed from their teachers'.

Then again, perhaps as long as administrators can influence the choice of student representatives, the most quickly chosen will be those who most resemble their elders. The Jim Smiths and Mike Alberts, the renegades worth remembering, will still leave the system, one way or another.

Several questions of importance persist

Do students care about these intricacies? Should they?

While the first question is hard to reply to (a lot hinges on what one has to do to "care"), the answer to the second is definitely yes. Few students can truthfully declare that their studies do not dominate their lives, or that MIT will leave no mark on them when they leave it. Of course "educational reform" can be defined to encompass nothing greater than the fate of the chemistry requirement — and sometimes it will be, if students don't make their interest known.

And is all this for real? It's been two and a half years since planning for the Commission began and what's been accomplished so far you could describe in less than 25 words . . .

Release of the Task Force report was scheduled for September, but refinement of Rogers' first draft has stretched on and on — the Task Force doesn't even have a final draft to show around yet. Dean Snyder declares work will be done in a week or two, however; he foresees limited implementation next term and a full-scale test by next school year.

How will you tell a "full-scale implementation?" Look for: appointment of an important new dean; announcement of new student-faculty research opportunities for incoming freshmen, as well as returning students; or a big fuss about any change that might effect your education.

If next year is the same as this, it's time to yell.

... where to find it (at home)

By Lee Giguere

An informal survey conducted last February pointed up the fact that while no MIT living group had organized any activities for the Independent Activities Period, there was a recurring feeling among their members that the period, with its reduced pressures, had been beneficial in fostering group interaction. Again this year, it appears no living group has begun planning to take advantage of the January period, in contrast to the wide range of "educational" activities proposed by Institute department and offices.

What this means is that again this year, "educational" innovation and experimentation during the January period will be limited to attempts at altering education within an academic context, while what is perhaps a more important aspect, personal interactions in everyday living situations, is being overlooked. The MIT Commission, in its broad report, touched upon the issue of the environment and the growth of the well-educated man, but their work in this area was vague, offering no concrete suggestions. The Student Committee on Educational Policy prepared a more comprehensive study on the subject of personal relations within living groups, and presented its work to the Rogers Task Force on Education.

It seems that Panel's recommendations, however, will neglect this topic, concentrating instead on the more approachable problem of the formal curriculum.

In all this excitement to reform "education," however, the most important component, the student's personal, day-to-day interactions, has been largely ignored. In spite of what the "innovators" may wish to believe, most of a student's growth takes place through his relationships with other people, and in spite of what they may wish, most of these relationships are developed outside the formal curriculum.

Given these propositions, it follows that the real focus of educational innovation and improvement must be within each student's living group. Unless he can find himself in a strong, supportive environment, a growing person may find the struggle to develop a secure identity too difficult and succumb to his own "false selves." He will be unable to develop a strong, self-assured existential identity.

The kind of personal growth that leads to the development of self-identity can proceed only through face-to-face encounters with other people. If these encounters are predominantly hostile, growth will be stunted — the personality

will fail to develop. If, on the other hand, these encounters are supportive and loving (in the sense that the other is willing to accept one's "real" identity) the person will flourish and be able to develop his own self-identity, without having to rely on numerous "false-self" systems for protection.

MIT students need these personal encounters just as other people do, and faced with the general impersonality of their educational environment, they turn to their living groups where the formation of supportive relationships can only be a matter of chance.

The time has come for a conscious effort to be made to eliminate this element of chance from our living environment. Frequently, the pressures of the Institute push personal relationships into a second-rate priority. Meeting the demands of a heavy course-load leaves too little time for getting to know anybody but your roommate. The IAP, in effect an academic "breather," offers a real opportunity for improving the living environment at and around MIT.

MIT, as an institution, possesses certain resources that can be put to work to improve the situation. The psychiatric and counseling staffs have expertise in psychology and in understanding the problems of growth. The faculty in general could provide a pool of understanding individuals from which living groups could draw to improve their environment. (Perhaps the Corporation and even the general Cambridge-Boston community could be involved.) And these resources must be opened up.

In addition there are certain "outside" resources that can be brought to bear on the problems of growth. Psychologist/writers such as Laing and Erickson have added to the popular literature of psychology and are particularly germane to the subject. The entire field of developmental psychology offers "objective" information on dealing with the problem of growth.

Living groups themselves constitute a real resource for promoting personal growth. By sponsoring activities as a group, and by fostering attitudes which are more conducive to the acceptance of individuals, organized living groups can make a major contribution. During IAP, they might sponsor semi-formal discussions on "human growth" or "intelligent living" which could draw on the more formal resources available and provide a context for looking at the problems each person faces as he grows.

Living groups could promote greater interaction with the real community around them rather than accepting the isolation that has been foisted on college students by their traditional segregation into dormitories, fraternities and student-apartment areas.

Small-scale, low-key social activities, aimed at improving the relationships within the group as a whole rather than simply providing entertainment, might be sponsored. Rather than looking outside the group for "entertainment," the January period might provide a good opportunity to encourage "internal" efforts. Coffee houses and group-produced drama might well be fruitful directions in which to move.

Activities which bring together faculty members and students on an informal, non-artificial basis should be encouraged. Non-academic projects, social activities and discussions of common problems of personal growth might provide suitable meeting grounds.

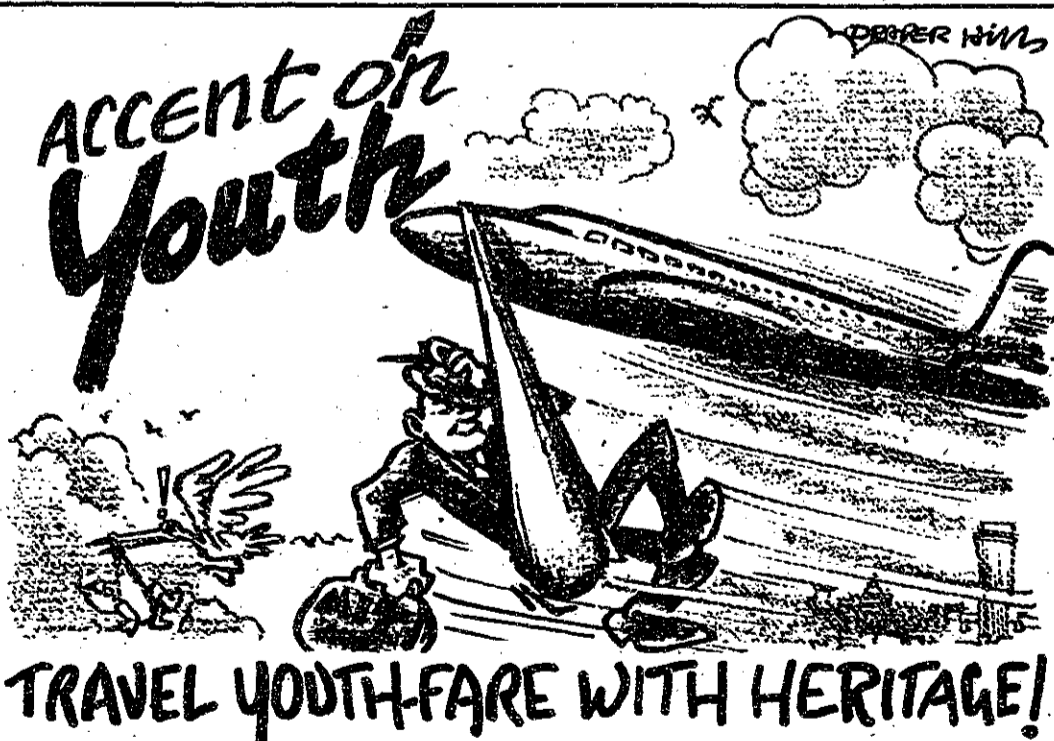
Living groups might also find it profitable to organize trips away from MIT. During January, Talbot House in Vermont could be utilized during the week as well as on weekends for intensive group activities. If such outings can be organized so that they reflect a more realistic distribution of age groups than the usual college living environment, they could be tremendously beneficial in promoting personal growth and in understanding the problems that people of all ages face.

This can only be one person's list of possibilities for exploiting the January period. There is a great need for activities which can work at a personal level, but only those that develop from within the group have much chance of succeeding.

UROP

An opportunity exists in political science research for one or two undergraduates. You can start any time, although there is work to be done immediately. The research concerns content analysis and its application to the Boston press, particularly concerning the issue of welfare. Both government and Movement resources will be used in the study. Contact E. Goldenberg, evenings, 776-6132, or call x6044 and leave a message for reply.

Food Habits and Taboos — 3 or 4 students to find, sort, and read material researched by Dr. M. Whiting on the food habits and taboos of a group of South African and South American populations. Interested students should contact Dr. E.R. Pariser, Room 22C-110, x2040.



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5.31-5.33: still waiting for a reaction

To conclude, for the present, our series of articles on "students grading teachers," we present here an evaluation of the 5.31-5.33 chem lab sequence prepared by members of the chemistry honorary, Phi Lambda Upsilon. We find it notable for a number of reasons:

(1) It is subject-oriented, rather than teacher-oriented as was the review of history teachers we printed last month

(2) It did not involve the use of questionnaires.

(3) It recommends specific improvements which its authors believe are practical.

(4) It has had almost no effect so far, according to a letter to us from Larry Klein, Phi Lambda Upsilon president.

The letter is reprinted below, followed by the text of the evaluation.

To the Editor:

In the chance that it might be useful, I would like to provide you with some background on the writing of the report on the chemistry lab sequence. In particular, I think, it is important to realize that the report was not conceived of out of a vacuum, but represents an extension of several smaller, rather unsuccessful, efforts.

The earliest of these involved discussions of the problems in the lab sequence at meetings of the Chemistry Department's Student-Faculty Committee, a body which existed during the 1969-1970 school year and then disappeared. Subsequent efforts involved the use of questionnaires — particularly a questionnaire distributed in the winter of last year by a former 5.33 student to other chemistry students. The data from this questionnaire was shown to the Director of the Undergraduate Chemistry Labs and resulted in some modifications in the organization of the course, but in no changes in its content.

Finally, in an attempt to achieve some more fundamental changes in the lab sequence, Phi Lambda Upsilon put together the 8-page critique, a copy of which I've sent you previously. The philosophy behind this effort was that if we could provide the faculty with a really representative consensus of student attitudes toward the lab sequence, then maybe they would take these opinions seriously and do something about the areas of discontent. Moreover, by offering concrete, practical, and economically feasible suggestions for improving the lab, we hoped to "get the proverbial ball rolling" in regard to getting some changes introduced into the lab sequence.

Unfortunately, at this point, I cannot report that our philosophy is working. The initial interested reaction to the report evinced by the chemistry faculty was encouraging, but, subsequently, little actual action has been taken.

Larry Klein
President, Phi Lambda Upsilon

During the last half of April and first half of May (1971), Phi Lambda Upsilon conducted a survey of people involved with the 5.31-5.33 sequence. Contacted personally (not by questionnaire) were four faculty members, forty current and past students, and nine teaching assistants. Phi Lambda Upsilon initiated this study not because of any feeling that the lab sequence is bad, but because, although the course is basically good, it can still be made much better. Dissatisfaction about the sequence does exist, as was evident in the "non-caring" attitudes of so many of the students who completed the sequence in December. In an attempt to fathom these dissatisfactions, members of the Society talked to the fifty-three people referred to above and tried to

organize their statements and opinions into some coherent, useful form. We summarize our organizational attempts in the following discussion.

The first facet of the laboratory sequence being considered is the teaching of laboratory techniques. In general, students and teaching assistants appear satisfied that adequate material is being offered. Two exceptions — one minor, one glaring — however, are cited. First, many students and T.A.'s feel that some exposure to the "tricks" of qualitative (not quantitative) analysis would be useful. This lack could perhaps be filled simply by providing students with a handout of qualitative analysis methods. Or, of course, requirement of some qualitative analysis as a side-line to a 5.31 or 5.32 experiment would serve the same function. A more important criticism, however, is that many students (particularly those interested in the non-organic aspects of chemistry) feel that the lab sequence does not provide them with sufficient opportunity to learn what physical chemistry is all about. This view is supported by Professor Dubrin who feels that students finishing the lab sequence tend to be rather naive of the realities of physical chemistry.

One additional point regarding the teaching of lab techniques should be made. Many students indicated to us that they felt the "educational yield/hour" of 5.31 and of the first half of 5.32 is lower than it need or should be. This situation could be improved by streamlining some of the experiments (in particular, the calcium iodate experiment in 5.31 and the first two experiments in 5.32) so that less repetition of the same types of work need be carried out.

Perhaps the least satisfactory facet of the lab sequence is the lectures. When the lectures provide information that helps the student carry out his experiments, they are valuable to him. Yet, most of the lectures are not of this type, but, instead, are "background theory." Idealistically, it would be nice if the student could learn all this background material. However, the material is seldom easy to fully understand and usually non-essential to the successful completion of his experimental work. To really understand the theory presented would entail a non-trivial expenditure of time (in addition to the large amounts expended in the laboratory), and would serve no immediate practical need. Consequently, the student, being only human, tends to decide that his time could be better spent in the lab itself or "tooling" some other Institute subject. On the other hand, students did express an interest in attending lectures if they were more practically oriented — for example, demonstrations of the correct (the *Techniques Manual* is not always a perfect teacher) use of various items of lab equipment would be of interest to students. (This could be handled in part by videotaped material, provided its availability was well publicized and a method of access to short sequences in the tapes was devised.) This view is supported by the results of the questionnaire filled out by eighteen of last fall's 5.33 students. On the questionnaire, the question reading "Regarding the idea of spending some of the lecture periods on demonstrations of new laboratory equipment, I think it's a (good, bad, hard-to-say) idea" was answered "good" by sixteen students and "bad" by not a single one of them.

Another use of the lectures might be to interest the student in chemistry research related to the experimental work he is doing. This should not involve detailed lectures about intricate calcula-

tion that can be done, but light, non-rigorous information that can motivate the students to find out about the chemistry. For example, during the ferrocene experiment, students might find discussion of some of the more interesting reactions of organometallics quite stimulating.

A third area of concern considered in this study was that of faculty involvement in the lab sequence. The last group of 5.33 students believed that the faculty associated with the lab sequence had no concern for their progress, and this is probably one of several explanations for the relatively low quality of work found in the 5.33 lab last fall. Happily, the current group just finishing 5.32 is not suffering from this problem. Professors Moore and Seyferth have visited the lab regularly, offering assistance and showing interest. They are to be commended for this. Hopefully, this process will be continued in 5.33 by the appropriate faculty members and repeated once again in 5.32 next fall. (Unfortunately, 5.31 is probably much too large for comparable faculty interaction.)

Two other points about faculty involvement should perhaps also be made. First, the general rate of turnover of faculty members involved in the lab sequence must be slowed down if continuity in the lab sequence is ever to prevail. Moreover, a more efficient means of communication between the faculty associated with the labs must be developed. As it stands now (at least as far as we've been able to tell), there is no ready means available for initiating any mid-term modifications in the lab course requiring the involvement of several faculty members. Either changes must be individually initiated or else the problem requiring the changes must remain until the end of the term (or longer).

The matter of teaching assistants deserves some special thought. Certainly, the current system of throwing first-year graduate students into the lab sequence without pretraining has obvious disadvantages — i.e., the T.A.'s are often as ignorant of how to carry out the experiments as the students. Some T.A.'s make special efforts to become familiar with the experiments and, consequently, are reasonably successful in providing help to students; the majority of T.A.'s who don't go to this extra trouble (understandable, certainly, considering their other obligations), however, are often of little help. The students we talked to almost invariably stated that they didn't want T.A.'s "staring over their shoulders and getting in their way," but they did wish to have T.A.'s who could answer their questions. Summer training of all the T.A.'s is the ideal solution, but obviously impractical for financial reasons. However, the program by which two teaching assistants last summer underwent training for 5.31, making them available as "reference sources" to the other non-trained T.A.'s was very helpful and should definitely be continued and probably expended to include 5.32 also. As one supporting argument, we might point out that Larry Trzupsek, one of these head T.A.'s, described his summer training to us as very useful, and stated that other T.A.'s actually did consult him on problems.

Another possible method for bringing more experienced T.A.'s into the lab sequence (either in addition to or instead of summer training) would be to provide an "incentive plan" for enticing second-year graduate students who have instructed 5.31 and 5.32 to put in another year of service. Such incentives might include providing them with a title such as "Senior T.A.," giving them a slightly

larger salary, and, most important, providing them with a lighter workload than the other T.A.'s (for example, by not requiring them to grade reports).

A final means for bringing additional expertise into the laboratory (one which experienced some success in 5.33 last fall), is to make each T.A. specifically responsible for some experiment. Therefore, at least theoretically, there would usually be somebody around who was capable of answering student questions.

We will say little about equipment and facilities here, for we realize the financial constraints under which the chemistry department has to work. The one possible suggestion we will make is that, as far as possible, it would be advisable to make it possible for students to do any experiment at any time of the term. There are several problems with this, we realize, but it would certainly spread out the use of equipment.

Before concluding this paper, there are a couple of additional comments that should be made. First, 5.32 should have its units increased from 12 to at least 15 and probably to 18 units. Students, in general, are quite willing to put up with the amount of lab time 5.32 requires because they believe they are picking up valuable lab experience. However, they feel cheated that it is only a 12 hour course, yet, by far, requires a greater commitment to time than the average MIT 12-hour course. Although this may sound like a minor point, it disturbs students a great deal because it seems unfair. Increasing the unit credit of the lab is not going to really make it that much easier for a student to reach the 360 units mark, but it will make students more satisfied they're being treated fairly.

Finally, many students have expressed interest in being required to make more use of the literature in the lab sequence (due to its importance in real research) and of being given more opportunity for creativity. Regarding creativity, students can be encouraged to work further on a given experiment, or perform variations on it, in lieu of other course work. Too much of this obviously cannot occur because of the large amount of fixed material which must be taught. However, a carefully regulated program could allow the students some leeway. For example, the student could be allowed to present a plan of action to a T.A. and discuss it. The T.A., having been briefed on details such as how much leeway should be permitted, could then give the student a go ahead, or refer the matter to a faculty member.

In summary, let us briefly repeat some of the points we've made earlier in this paper:

1. Some additional laboratory techniques could be profitably taught; in particular, additional optional experiments designed for potential physical chemists should be included in the sequence.
2. Some of the current experiments could be streamlined.
3. Students are presently not getting much out of lectures, but probably would if lecture material was more "relevant."
4. Faculty involvement in the lab is necessary if student morale is to remain high. Moreover, interaction among the faculty members themselves should probably be increased.
5. Effort should be made to secure as many experienced T.A.'s as possible (for example, by the means suggested in the body of this paper). Otherwise, the T.A.'s are good for little but signing requisition forms.
6. The unit credit for 5.32 should be increased.
7. Additional challenge and creativity in the sequence would stimulate many students not presently so influenced.

—Larry Klein, Duane Lindner
Dave Stuart, Larry Rosenblum, Jim Scott

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500 offerings set for IAP

(Continued from page 1)

more suggestions hopefully will be coming in.

This information will be kept in the notebooks that will be distributed to all living groups and kept in each of the information centers, the most comprehensive of these being the one in the lobby of Building seven. That booth, which is now being

designed by Assoc. Prof. Maurice Smith of the Architecture Department and his students, will involve renovation of the smaller staircase his group designed and built in the lobby last year. The information center in the East Lounge of the Student Center will probably prove to be the next most comprehensive.

Not getting as much attention

as the other activities, but still available to students, is the exchange program. MIT, which is an associate member of the 4-1-4 Conference, has received information from all the schools of the conference concerned with what will be happening at their schools in January. According to Connie Selian in the Foreign Study Office, "there are chances for students to participate in foreign study or make exchanges with students from all over the country, some of them being Princeton, Bucknell, Case Western Reserve, and Oberlin. Of course these opportunities aren't as free-flowing as those offered at MIT, we'd just like to make more students know about them and that they're available."

In order for the IAP to be a success, Mr. Orlen feels, students must take the initiative in proposing projects, and they should start looking at the projects seriously and let it be known that they're interested. "Above all, the ball game's not over yet, we hope the Guide will provoke additional ideas for activities."

China seminar agrees: thaw is two years late

(Continued from page 3)

looked at the future of our relations.

The results of the UN contest were not a defeat for the US, but a "blessing in disguise." The US no longer must operate with an artificial policy and can deal more freely and openly.

The Chinese realize that the US cannot easily sell out immediately. The only issues of the moment will be the legitimacy of the Peking government and the American military presence in Taiwan. The Chinese realize that the rest can follow, but slowly.

Neither of the countries can "afford their middle kingdom approaches," or a feeling of superiority. Fairly good trades will be made in negotiations with the Chinese possibly giving a little more.

Scientific and academic exchanges will probably be formalized. The American business community has been after a new trade policy and the achievement of direct trade will not only open a huge market for Americans but also let China be less dependent on one nation economically.

China will be more active in international affairs, especially in the India-Pakistan conflict where it will work with the U.S. and the U.S.S.R. in the U.N. to achieve a settlement.

China may not want all of the U.S. military forces out of Japan. They have become accustomed to the American nuclear presence there, but, more important, they have grim memories of the Japanese invasion and fear Japan far more than the U.S. With the American nuclear weapons as a safeguard, the Japanese will be less likely to attempt to build their own.

There will obviously be some talk of Vietnam. As the statement that the "U.S. will use its own efforts" to get out has been

made, it is likely that Nixon is hoping for some help from Peking in that direction.

China may, and should, soon participate in the SALT talks. Other supranational questions will also likely arise.

This is the ideal time for much progress to be made as the countries are genuinely equal for the first time. Never before have the two nations been able to regard each other respectfully.

Of course, both leaderships are realistic: neither expects instant results.

Yale, Harvard experts study Chinese system

(Continued from page 2)

In the Cultural Revolution in 1967 the People's Liberation Army was brought in to keep order and guide the shift to the left. In mid-1967 the first attempts were made to rebuild — not the farm or factory system which had been almost unaffected, but the political organization. The Revolutionary Committees reestablished the old government apparatus, with the Liberation Army selecting the "right" people from among the old bureaucrats and bringing their own in to fill vacancies in the lower echelons. The slowest to change were the systems of higher education and party organization.

Moving into industrial considerations, Vogel noted the distinction that the Chinese make: a factory owned by the state is owned by all the people while a collective is owned by only part of the people. The Chinese leadership realizes that the change to state ownership cannot be made overnight and is using a system of national planning to move toward larger and larger collectives which permit greater modernization and efficiency. Originally, in the mid-fifties,

the Socialist Transformation led to the collectivization of most private property (the only possessions allowed now are very minor ones such as clothing, and any sizable accumulation of land is taken over by the state). In 1958, around twenty-five-thousand communes were set up, but the Chinese quickly found that their economy could not handle such large units, so each commune was split into three collectives of an average of eight-thousand people.

Those in the modern urban sector are paid a state regulated salary and benefits. The collective is somewhat capitalistic in that the wages depend on the profits of the whole group and work points accumulated. The Chinese do not have enough in their treasury to be as socialistic as the United States Social Security system, but they encourage the collective to look after its own. The Chinese realize that transformation to communism is a slow process.

As the flow and access to news within China is tightly controlled, many Peking officials visit Hong Kong once or twice a year to find out what is going on in China.

'Legal pressure points' crucial to conservation

By Ken Vaca

The problems raised by the United States' need for greater energy resources and environmental protection were the focus of a Nuclear Engineering seminar.

Richard Hall, attorney for the National Resources Defense Council, and Glenn Paulson, doctor of environmental studies, spoke on "Scientific inputs into Energy Related Environmental Issues."

Hall described the National Resources Defense Council (NRDC) as a public interest law firm and charitable corporation made up primarily of ten lawyers who run two offices, one in New York City, another in Washington, D.C. They are funded by the Ford Foundation. Hall, who received his law degree from Columbia in 1964 and has been involved in conservation before, helped found the firm.

Paulson, who was trained as a scientist, also is a member of NRDC and added a new perspective. He is a member of the Scientist's Institute for Public Information, (SIPI), which is presently involved in environmental legal actions with the help of NRDC.

The two began by stating their general objectives. They expressed the need for reforms which would make the law more responsive to public demands. Hall said a larger effort must be made on behalf of an effective preservation of the environment. He discussed the possible long term effects of a legal action. Paulson emphasized that "legal pressure points" must be found in order to effect better conservation. He observed that there has been a recent insistence by many that science must learn to serve the public interest in new ways.

By SIPI's interpretation of the act, any major policy decision must be discussed in public. Though it was admitted that the act itself does not have substantive thrust, Hall and Paulson suggested that by making information public there would be sufficient pressure to see that the right choice is made.

Later the seminar was opened for questions. Objections were

made that legal actions can take as much as ten years. Though this may have occurred in the past, Hall said recent precedents would prevent that. When asked if NRDC only filed suits against government agencies, he explained that the opposite was often true. Members of the audience queried whether NRDC and the many other similar agencies might be less effective because they are so diffuse. Both Hall and Paulson agreed that that would never be the case, and Hall then quoted Mao Tse Tung: "Let a thousand flowers bloom..."

Dean calls for better inputs to engineering

(Continued from page 1)

the question, "does society have a debt to the engineer?" His answer was that the legislatures generate programs which require the skills of engineers, then drops them; what have they done to an engineer trained in that field?

One of the more amusing situations at the luncheon occurred when Keil was asked, "since most industries are hiring people with the traditional civil or chemical engineering training, what jobs will be available for students from these new programs?" Keil laughingly replied, "not only will our graduates have the same basic technical skills as past graduates, they will also have a broader background with respect to engineering and life in general."

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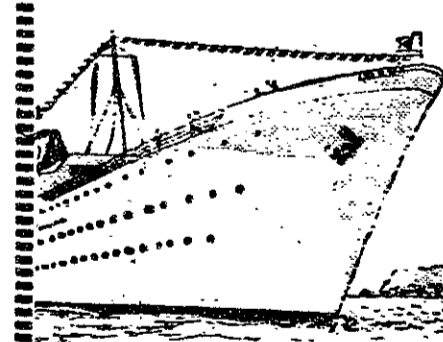
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music:

At the Pee-Nut Gallery

By Charles Marx

November has marked the opening of a new rock club in Boston, the Pee-Nut Gallery at 1300 Boylston St. It is probably the ideal size and atmosphere for music to be played in; it seats less than 100 people and the sound system is perfectly suited for such an intimate audience. The decor of the rather dimly lit club and bar is somewhat of a cross between an English pub and a corral, minus the Cockney accents and the stench of ale and/or cow dung. It's quite reminiscent of Stonehenge, on the

North Shore in Ipswich.

To help the Pee-Nut Gallery get rolling, both Warner Brothers/Reprise and A&M records have brought in new musicians to debut at the new club. The first to arrive was Jesse Frederick, the second to sign on Albert Grossman's Bearsville WB subsidiary label (the first being Lazarus, who released a fine premiere album last month). This young man from southern Maryland is definitely someone to keep your eye on. His music ranges from solo guitar and voice to a rocking three or four man electric back-up. He has a decidedly interesting voice that grows on you, somewhere between a Joe Cocker and a Randy Newman, with a bit of a Band vocal thrown in. *Jesse Frederick* is very pleasant listening; "Victoria Lenore" is a simply beautiful number.

A&M followed in with Jim Carroll last week, whose musical scope from simple acoustic to raunchy rock is much the same as Frederick's. His voice is also distinctive, but in a totally different sense. While Frederick's is a deeper husky tone, Carroll's is high pitched, somewhat thin. But at times he uses it most effectively. On *Jim Carroll*, a song such as "Save Me" or "On and On" is made all the more haunting by his voice. Decidedly, Carroll's album is also worth a listen.

At the Pee-Nut Gallery, Jesse Frederick was the more impressive of the two. Both albums suffer from over-orchestration which is mercifully eliminated live. As Frederick leans more heavily on the music, the fact that his backing musicians were very tight and competent only enhanced his set. On the other hand, Carroll is the better lyricist of the two, but live, his band, although featuring guitarist David Spinoza, was poor, and detracted from Carroll and his lyrics.

All in all, Carroll, Frederick, and the Pee-Nut Gallery with their encouraging initial efforts, bode well for the future.



Jesse Frederick

music:

TYA, Fleetwood Mac, ...

By Neal Vitale

November has struck Boston, bringing its usual share of arctic winds and frigid temperatures. But it seems, as if to thaw out the populace, the record companies and promotional agencies have swamped the area with major acts and new record releases to keep those amplifiers and electric guitars and turntables smoldering.

Unfortunately, a deeper chill was thrown on the month by the death of Duane Allman in a motorcycle crash in Macon, Georgia. He was one of the premier musicians in rock, in his capacity as sometime-studio guitarist (he was master of the slide guitar), sometime-Domino with Derek, but mostly as leader of what might have been the best rock band around — the Allman Brothers. The tragedy of his death is all the more poignant in that his group was finally coming into its own with such fine records as *Idlewild South* and *Live At The Fillmore*. Mr. Duane Allman will be missed, and as a tribute, Wednesday's scheduled Allman Brothers concert will instead be a memorial for him (Don't be surprised if one J. Geils and a few other friends show up).

Monday the first, Ten Years After and Mylon trooped into the jammed, smoke-filled hoc-

key palace of Boston, the Garden. Mylon and his back-up, Holy Smoke, were worthy of comment only in that they dedicated their set to the late Duane Allman. Ten Years After came on after the usual delays due to crowds rushing the stage and ripping up wires and monitors. Clearly it was not worth the trouble. A few years back, TYA was an interesting blues-rock group. But after playing virtually the same set ever since, they've lost a bit of their interest. Despite all the mythical "changes" and "softening" of the group's sound, Monday's performance differed only slightly (for the worse) from last year's Harvard Stadium show and previous gigs at the Tea Party.

The group's rhythm section of Ric Lee on drums and Leo Lyons on bass has never been much more than passable. Luckily, Lyons was basically inaudible, and Lee was restrained from much more than a single boring drum solo. Chick Churchill has always suffered from underamplification, so his usually quite competent keyboards would be lost amidst Alvin Lee's furious guitar. For a change, though, at a few points on Monday night, he was able to come through with some excellent electric piano work. Even so, Alvin Lee comes across as a

group in himself. He is a very able and extremely fast guitarist, with a mystique of sex much along the lines of Mick Jagger. Generally, it turns out that the difference between any two given TYA songs is how it gets to and from Mr. Lee's solos. As would be expected, the high points of the night were reached when he was left on his own to improvise, and, perchance, Churchill might chime in with some piano licks. These rare moments came during the TYA standards "Good Morning, Little Schoolgirl," a jam-like medley of "I Can't Keep From Crying, Sometimes," "Sunshine of Your Love," and "Cat's Squirrel," "I'm Going Home," and their encore, from *A Space In Time*, "Baby Let Me Rock'n'Roll You."

Ten Years After's medium has become pure rock 'n' roll — their latest attempts at jazz and blues stumble pitifully. If they could improve their rhythm section, become a bit tighter, they could become a major influence over the next few years. But, as it appears now, they'll plod along as another "heavy" English group, bordering on boring, exciting the primordial crowd that flowed into the Garden Monday. It's a charming atmosphere to work in when the

(Please turn to page 10)

ARTS



film:

The Last Picture Show

By Emanuel Goldman

At a press conference with Peter Bogdonavitch, *Phoenix* film critic Chuck Kraemer took out a portable tape recorder and placed it on the floor. "Do you mind?" Kraemer asked. "Not at all," replied Bogdonavitch. The conference continued as Kraemer started the tape. Several minutes later, Bogdonavitch stopped in the middle of a sentence and asked, looking at the recorder, "Did I say something wrong?" "No, no," Kraemer explained. "I just haven't got a lot of tape so I have to shut it on and off a lot." "Oh," said Bogdonavitch. "I'm so used to making pictures, you know, it's just like yelling 'cut.' Why bother to keep on talking?"

That's the kind of person Bogdonavitch is: a film person,

through and through. He used to write about film, including several highly respected books and articles on the likes of John Ford, Howard Hawks, Orson Welles (a close friend of Bogdonavitch) and Alfred Hitchcock. But writing is not his first love: "It's too lonely, I'm a social fellow," he explains. Nevertheless, starting in January, he will write a film column for *Esquire*, "on anything but reviews," as he puts it.

His interest in making a movie of the novel *The Last Picture Show* began solely with the title. Soon, the notion of depicting the falling apart, the decay of a town, as reflected by its theatre, also caught his interest. Doing a period picture was somewhat of a challenge, due to the difficulty of obtaining authentic clothes and other items of that time; but it was also, he adds, "a lot of fun, because you're in complete control of everything in the frame, much more so than in a film set in the current time."

Precisely because the film so successfully evokes the early fifties, it has been widely labeled a "period piece." But *The Last Picture Show* transcends its specific setting to become a universal story of growing up, of the pain of experience interspersed with the dullness of daily routine. This is why Bogdonavitch insisted on shooting in black and white, despite the enormous pressure in Hollywood these days to make everything in color. "Color has this tendency to romanticize, to glamorize," Bogdonavitch explains. On the other hand, he adds "Black and white is not reality and so I like it better."

True enough, the film is not reality — it's something more than that: a work of art. Although Bogdonavitch refuses to take sides in the classic aesthetics question as to whether art should imitate reality or reality should imitate art, his film speaks for him.

It is structured as a perfect cycle — beginning and ending with the same series of shots, the same atmosphere, even some of the same lines. And yet, things are not the same in Anarene, Texas. Nature may have come full circle over the course of a year, but the people are irrevocably changed. Some are dead,

some have left, and the protagonist, Sonny, just out of high school, has learned. Just how much he has learned is revealed in a scene with his former mistress, the wife of the high school coach. He had treated her insensitively earlier, but now, in the wake of tragedy, he comes to her. She loses her temper and screams "You shouldn't have come here — it's lost — you lost it." He is unable to speak, but simply takes her hands. She, seeing the expression in his eyes, suddenly realizes that he has caught up to her in his life experience, in his knowledge of the pain of the human condition. "Never you mind. Never you mind," she says quietly.

In addition to the careful structure and characterizations, the film uses symbolism in a highly refined way. One of the boys, Duane, gives his girlfriend an expensive watch as a present. But she, planning to break up with him, forgets that she is wearing it at a skinny dipping party which she went to with a different boy. The watch is ruined by the water. Later, Sonny, who has been rejected by Sam (a surrogate father to the boys) for having been present during a callous trick to a deaf-mute, has snuck into Sam's diner and ordered a cheeseburger. Sam returns just as the food is ready. Sonny starts to leave, but Sam says "Your cheeseburger's getting cold." Sonny sits down to eat, knowing that the food signals his reconciliation with Sam. And finally, the movie theatre itself becomes a symbol of the town's last bit of vitality, of a life force incarnate in Sam, who owns the theatre. When Sam dies, the theatre soon closes down — with obvious implications about the condition of the town.

This is Bogdonavitch's second film. His previous one, *Targets*, with Boris Karloff, is already something of an underground classic among film cultists, and is well worth going out of your way to see when it comes to the film societies or the Cambridge theatres. *The Last Picture Show*, of course, will present no difficulty in being found for quite some time to come, for it is destined to be regarded as one of the great American films.

-at the Abbey Cinema



Photo by Robert Dubner, courtesy Techniques

theatre:
'Pirates' storms Kresge

By P.E. Schindler, Jr.
For a fourth performance it would have been good. For an opening night, it was superb. For the first time under new management, the MIT Musical Theatre Guild produced Gilbert and Sullivan's "Pirates of Penzance." The combined group, succeeding the Gilbert and Sullivan Society as well as the Tech Show organization, has proven itself well able to carry off a performance in the public domain; hopefully it can do as well with the original Tech Show scheduled for later this year. Technically, the performance was superb; but nothing less is expected from artistic performances at MIT. The sets, for example, while not exactly standard for this particular play, were visually fascinating. They provided the director myriad opportunities for the stylized posturings typical of Gilbert and Sullivan, and Nancy-Ellen Rainier (the director) took full advantage of them. In fact, if any technical criticism can be made, it might be that the set spread the action out a bit too much, occasionally diffusing the audience's attention over too wide an area, striving to catch what should be mere background stage business. The sound re-enforcement, making use of Kresge's all new mixing system was not overdone. It was subtle, and with rare exceptions, kept so skillfully in the background that only a trained ear would have noted its presence; this is as it should be. (Also of note is the Dolby master tape, recorded by WTBS for future broadcast, making use of the Kresge Dolby unit.) Last, but not at all least (on the technical side), there were the lights, without which the play would have been very difficult to see. The lighting was competent, but not inspired. The artistic side is a little

more open to criticism, (again a malaise of most MIT performances) but not much so. Perennial favorite Dan T. McGillicuddy headed the bill, as Major-General Stanley. Rarely overplaying a part which might be spoiled by lesser men, he maintains a proper balance of comic gestures, well-timed grimaces, and a good stage "presence." The overall effect is outstanding. Stephen Nuding, as the pirate king, exhibited an occasional lack of proper pitch at the start, but straightened out to reveal a respectable range, and quite adequate performing skills. The stand-out performance of the evening was that of a petite lass with a long name:

Epp-Karika Jurima-Sönin. Her uncanny clear voice so overcame the audience that persistent cries of "encore" (especially loud from one clod sitting behind me) caused a reprise of her most spectacular number: the first encore this reviewer has seen in a long time. At least a nod must be given to the other leads, Michael Kaiser, Jeffrey Weisenfreund, David I. Katz and Valerie Norwood. Credit too goes to the orchestra, and to musical director John M. Rainier. The strings were a little weak, but all in all, the orchestra backed up the players in a Gilbert and Sullivan production that all participants can be proud of.

theatre:
Othello at the Loeb

By David Searls
The Harvard Dramatic Club's presentation of *Othello* (playing tomorrow through Saturday at the Loeb) is, typically, competent but not stellar. The lines are delivered with a minimum of fluffs and, in general, with approximately the right intonation; the only exceptions would be a much-too-literal and lyrical Brabantio and similar imperfections among some of the lesser characters. These are balanced, if not compensated for, by a great deal of talent among the more significant personae.

deceiving him earnestly, rather than laughingly, but he negates the essential comic relief of the "gulled gentleman" and subverts an entire subplot of the play.

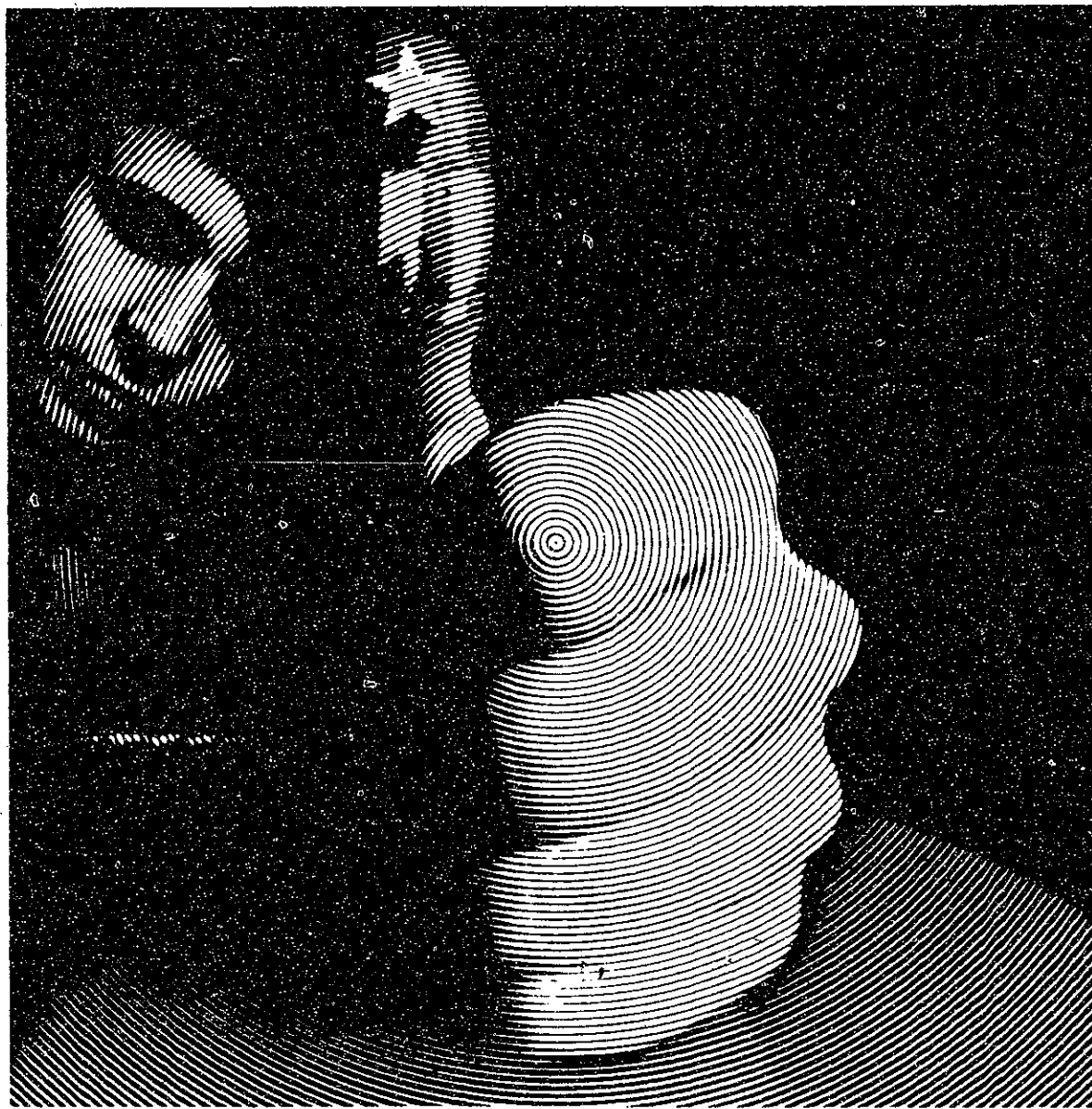
In fact, Iago approaches Roderigo in much the same manner as Othello himself, which serves to put the latter in a more simple-minded and too-trusting aspect. This would not be noticeable but for the fact of Iago's overbearing presence on stage in the first place, which makes it both a strength and a weakness. His only general flaw of portrayal, and it is a slight one, is his handling of the more pathological aspect of Iago's monomania; too often he seems to be straightforward but irrational where he should be cunning and irrational.

Curt Anderson plays the Moor with some elan, though it would probably profit him to pursue further the fluid gesturing and flaccid gait, reminiscent of Olivier's portrayal, in which he only occasionally indulges. He is better at the raging emotions than the tender ones, and a more exotic posturing would undoubtedly help him by rendering him more foreign and thus (ironically) more believable.

The only other standout is Darcy Pulliam as Emilia, Iago's wife. Her performance, unlike the others, showed a great deal of range; whether she is taunting Iago, dotting on Desdemona, or being outraged at Othello, her acting can hardly be faulted.

Ralph Pochoda would appear to be a natural for Iago, with his stocky, solidly build and marvelous acting voice (at times, embarrassingly voluble compared to the others). His performance is creditable, with the exception of one misinterpretation: he seems to play up to Roderigo in much too "straight" a manner. Not only does he ennoble Roderigo too much by

The set and lighting is standard fare for modern productions of Shakespeare — all the action takes place in or in front of a huge, archetypal stone structure, dramatically amorphous but distracting when it sways beneath the actors' weight. Also, it is a bit ludicrous when the bed for the final scene trundles out of a hidden door in the rock.



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... J. Geils, J. Beck, P. Floyd

(Continued from page 8)

audience throws things at you (Alvin Lee was forced from the stage at one point) and they're continually tearing up the electrical work. Just charming.

Ten Years After should take a long hard look at the J. Geils Band to see just how a good rock 'n' roll band operates, a talent the latter displayed most aptly at Wednesday's Music Hall engagement. The concert, originally scheduled to feature Daddy Cool, Fleetwood Mac, and Deep Purple, suffered from very little attention. Then, when Deep Purple had to cancel because of Ian Gillan's contracting hepatitis and jaundice, Daddy Cool was replaced by Lighthouse, J. Geils was enlisted to top the bill, and the whole show became a benefit for St. Jude's Hospital.

Lighthouse led off the evening with a set redeemed only by a truly outstanding version of "Eight Miles High." In contrast to the Byrds' gossamer ethereal original, the 11-man "big-band" conjured up an incredibly visceral rendering, led by a solid horns section and a snarling lead guitar. After the intense energy of that one number, "One Fine Morning" was lost in lethargy.

Fleetwood Mac followed, now consisting of founding members Mick Fleetwood and John McVie, the latter's wife, Christine Perfect McVie, Danny Kirwan, and latest addition Bob Welch. Having been fraught with personnel changes at crucial periods in its career, the group often teetered on complete collapse. Peter Green was the first major loss, yet the band regrouped enough to produce an excellent album, *Kiln House*, which never really got the notice it deserved. Then Jeremy Spencer "found religion" and left the group late in 1970. Welch joined, the group tried again, and came up with yet another fine record, *Future Games*, released last month. "Woman Of A Thousand Years," "Morning Rain," and "Future Games" are all later vintage Fleetwood Mac (that is, more subtle), and come off extremely well on record. Not so, live.

Evidently the continual shake-up has made the band exceedingly rough and uneven. They were painfully loud, particularly guitarists Welch and Kirwan, who unfortunately drowned out Mr. and Mrs. McVie on bass and keyboards, respectively. Fortunately, though, the continued inept drumming of Mick Fleetwood was also lost in the noise. All of their songs seemed to ultimately regress to the same distortion-laden jams, and much of the group's fine new material, as well as a seemingly very Santana-influenced "Black Magic Woman" (surprising in that the song is a Fleetwood Mac original) vanished in the din. The band needs a lot more playing time together, and a turning down of their equipment, if they expect to approach the excellence of their studio work in the concert hall.

The J. Geils Band is yet another matter. For the first time, they received the much deserved honor of heading a bill, a kind of tacit signal that they had made it. Ever since the present group formed from The J. Geils Blues Band and The Hallucinations, they'd been accustomed to play-

ing small clubs or second or third billing at the old Tea Party. Yet, as they continually upstaged many a major act (Johnny Winter, for one), they garnered a following as loyal as Grateful Dead freaks, even though for the longest time, they were unsigned to any record label, and so, were unrecorded. For at least two years, Boston had to settle for the poor quality "bathroom tapes" over WBCN or catching J. Geils at the Tea Party, all the time solidly behind the group while Dick Summer's dream of the "Bosstown Sound" bloomed with such as the Ultimate Spinach, The Beacon Street Union, and The Barbarians and died just as quickly. Finally, Atlantic signed the band, and after about another year, *The J. Geils Band* was released. Though not a big seller nationally it sold like the proverbial hotcakes in the Boston-Cambridge area. It showed the group to be firmly entrenched in rock 'n' roll, but with some deep roots in the blues. The rocking songs like "Wait" were very fine, but the burning intense power of John Lee Hooker's "Serves You Right To Suffer" clearly dominated the record.

Last month, *The Morning After* was distributed and, with "Looking For A Love" doing very well on AM, the possibility exists for this album to be a nationwide success. Almost needless to say, *The Morning After* is flawless - good old rock 'n' roll, pure and simple. There isn't a bad song on the record, and the combination of Peter Wolf's vocals, J. Geils' lead, Magic Dick on harp, and Seth Justman on keyboards is virtually unbeatable.

Live, an extra level of excitement is added to the J. Geils Band. Magic Dick sounds even better; he comes through as the best living white harp player. J. Geils is little short of dazzling at times; Seth Justman's keyboard work was so torrid Wednesday night he shorted out one organ. Steve Bladd is competent on record, but becomes an explosive live drummer. Peter Wolf, on stage, is America's answer to Rod Stewart. Both are master vocal technicians and adept at rock theatrics, drawing the most possible out of every gesture and scream.

The crowd was at the Music Hall to see The J. Geils Band, and they certainly weren't disappointed. The band was as tight as ever, resplendent in silk, satin, sequins and velvet, as they rocked through most of their albums, stopping only for a fire under the stage to be extinguished. They returned at the end for a low-key encore, dedicated to Duane Allman, "Blues In My Sleep." John H. Garabedian of WMEX had introduced the group as "the greatest rock 'n' roll band in the world" - few people who have seen or heard Boston's own J. Geils could seriously disagree.

The following Monday, the 8th, brought Jeff Beck into the Music Hall with his new band. Following an atrocious few numbers by Redbone, the skinny lead guitarist followed his band on stage. Jeff Beck's old group would probably be the English equivalent of the various Crosby, Stills, Nash and Young permu-

tations, as it featured Rod Stewart, Ron Lane, Nicky Hopkins and Micky Waller. Eventually, it broke up, as do all such talent-laden gatherings; Ron Lane, Rod Stewart, and Micky Waller sort of stuck together with the nearly defunct Small Faces; Nicky Hopkins, at last glance, had left Quicksilver and was with McGuinness Flint. Jeff Beck was in an automobile accident shortly thereafter, and was lucky to escape alive. As it was he was partially paralyzed and incapacitated for about a year. The paralysis eventually subsided and he was shortly back playing guitar and searching for a new band. After a disastrous series of sessions in Detroit, he eventually met up with the current grouping, with Bob Tench on vocals, Max Middleton on keyboards, Cozy Powell drumming, and Clive Chaman playing bass.

Monday night, the group seemed quite "together" for a relatively new set-up. Unfortunately, the audience was very cold, with hardly anyone getting into the excellent music. The new material shows heavy jazz influences, with Max Middleton providing fine electric piano playing, overlaid on the strong rhythm combination of Powell and Chaman. Especially on some of the old tunes like "Morning Dew," "I Ain't Superstitious," and a superb version of Bob Dylan's "Tonight, I'll Be Staying Here With You," Bob Tench shows himself to be capable of replacing Rod Stewart as well as anyone; in fact, their voices and showmanship have a lot in common. Of course, Jeff Beck is still one of the alltime great guitarists; as he illustrates on "Jeff's Boogie" he can get the most incredible sounds out of a guitar, and can play better one-handed than most with two-hands. It was sad such truly remarkable musicianship fell on such an unresponsive audience. With a little more crowd excitement and/or participation, the concert could have been a blockbuster.

The tone of the music changed abruptly Thursday with the somewhat late arrival from Montreal of Pink Floyd. They were to be the only group that night, doing two sets separated by only a short break, playing for a total of about three hours. And for that time, they converted the sanctum of the Music Hall into a vessel of its own traveling through uncharted regions, pushing the music to the outer edges of the universe. Pink Floyd is one of those anonymous groups that you don't read about or see in pictures or that hasn't changed members over a course of years, but instead has been concentrating its energy into musical exploration. Consisting of Dave Gilmour on guitar, Roger Waters on bass and gong, Nick Mason as drummer, and Richard Wright technician



behind the keyboards and batteries of electronic equipment, the group exploits most of the avenues open for artifice sound expansion and immersion. They carry with them over a ton of equipment all told, much on the order of Emerson, Lake, and Palmer, only Pink Floyd delves more into use of prerecorded sound and of the concert hall as an actual musical instrument, as well as utilizing the human voice in an almost mechanical way.

Thursday evening, the group had set up six speaker systems, three on stage, three in the audience, to make the sonic involvement total. The effect was incredible in several songs as sounds such as footsteps, explosions, even the guitar work, would circle around the hall. Pink Floyd performed many of their massive compositions that span the aural spectrum, such as "Echoes" from the latest Harvest album *Meddle*, "Atom Heart Mother" from the album of the same name, and "Careful With That Axe, Eugene" (Used in Antonioni's *Zabriskie Point*) and "Set The Controls For The Heart Of The Sun" from *Ummagumma*. The overall feeling of the night was of a real experi-

ence, not simply hearing a concert, with Gilmour's electric guitar slithering right through the audience, Water's bass, gong, and eerie voice rushing, pounding and screaming from below, and all sorts of electronic pulses and swirls emanating from Wright's control boards. After Pink Floyd takes the crowd through their own space odyssey, they leave tired, a little stoned, having been taken on a journey through the stellar limits of sound. Simply amazing.

So far, November has featured a wide range of music sweeping into Boston, some bad mixed in with the good. But thanks to J. Geils' rock 'n' roll, with jazz-like offerings of the new Jeff Beck Group, and Pink Floyd's space music, the month must be marked as a memorable one. And what with Jethro Tull; Emerson, Lake, and Palmer; John Mayall; the Grateful Dead; and the Band all coming to town, and with major releases by Neil Young, Tull, ELP, the Faces, Bob Dylan, and George Harrison (Bengla-Desh) all due shortly, 1971 might just go out in pretty incredible style. Let's just hope Duane Allman is the last rock star to die.

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Left: On scaffolding, after adding catalyst and mixing. Benglis pours while assistant looks on and sound engineer captures whatever words can be projected through the respirators — and possibly the soft lapping of the plastic, as Benglis rocks the bucket to break surface tension, and then spills the goo down the hillside of Adhesive Product.
Below: Rigid foam sculpture takes shape over framework of wood, chicken wire and polyethylene sheeting. When the piece is complete, the supporting structure will be removed. The final form is light enough to stand free, supported only at its juncture with the wall. This piece has a horizontal extent of only five feet or so; others are fifteen feet and longer.



Adhesive Product

The Hayden Gallery's new exhibition is putting not only art but the artist on display.

Lynda Benglis, of New York and the University of Rochester, is constructing the sixth in a series she calls "Adhesive Products," rigid polyurethane foam sculptures that hang from the wall and protrude up to fifteen feet, creating the effect of floating on empty air.

Benglis creates her pieces by pouring a freshly prepared mixture of plastic and pigment over a framework made of wood and chicken wire covered with a polyethylene dropsheet. The material flows and spreads like molasses or molten lava, rapidly hardening into a solid mass that is both rigid and extremely light.

Because of the toxic fumes, visitors will not be able to enter the gallery in numbers (though individuals are being allowed to don respirators and go in) until the pieces are complete, sometime before this Thursday. The exhibit will be formally opened with a party at the gallery Friday night. The MIT Community, needless to say, is invited, and drinks will be served.

The exhibit will be dismantled and the pieces destroyed on December 19.

Benglis began work last Thursday, promptly attracting the stares of curious passersby, who have since been crowding the windows of Hayden. Unfortunately, the view isn't terribly good. The community's view is being augmented, however, by closed-circuit TV displays in buildings 7 and 10. Originally scheduled to be set up last week, the screens did not appear until yesterday due to delays on the part of Video Frontier, the group supplying the equipment, according to Hayden Gallery Director Kasha Linville. Audio-visual and Unitel and supplying the transmission lines, while camera and sound work is being done by Twenty-two Video, friends of Ms. Benglis from New York.

Kasha Linville invited Lynda Benglis to MIT because she thought her exhibition would provide something a little different to the MIT community, "a special kick" that would stir up interest in Hayden and remind people that we have an art gallery here.

The Adhesive Products series is named after the Bronx firm that manufactures the foam components — resin and a catalyst. The Hayden pieces are the first set Benglis has done in different, but solid, colors. She explained that each set of constructions was used to work out different ideas, and that she doesn't see any point in repeating herself. One of the reasons she came to MIT, she said, was that the space is "more vertical" than the previous ones she used.

Adhesive Products I consisted of nine black pieces along an eighty foot wall at Minneapolis' Walker Arts Center. Benglis' next large constructions, in Milwaukee, were phosphorescent, and were displayed in a room whose lighting was programmed to shut off periodically. Her last show, at Paul Cooper's New York gallery, featured a piece called "Pinto," modelled in shades of black, grey and white.

The Hayden Adhesive Products consists of six wallmounts, each done in a single color.

Benglis' ideas and feelings about her work are not easily verbalized, she says, "Otherwise I'd be a writer."

"I'm just making a piece of art, that's all."

The exhibition is an expensive one in terms of the artist's time and the cost of materials. But it attracted at least one visitor who might help defray the cost: Max Wasserman, one of the biggest real estate developers in the Boston area and currently a key mover behind the development of the Harvard Square area, who donned a gas mask and watched Benglis at work after discussing the possibility of arranging materials supply at cost from the primary manufacturers. —Bruce Schwartz

Above: Goggled assistants mix resin and pigment. Catalyst is not added until just before pouring. Masks and goggles are worn as protection against toxic, irritating fumes.
Right: The sculptress calls for another bucket of plastic.



Photos by Lloyd Marks

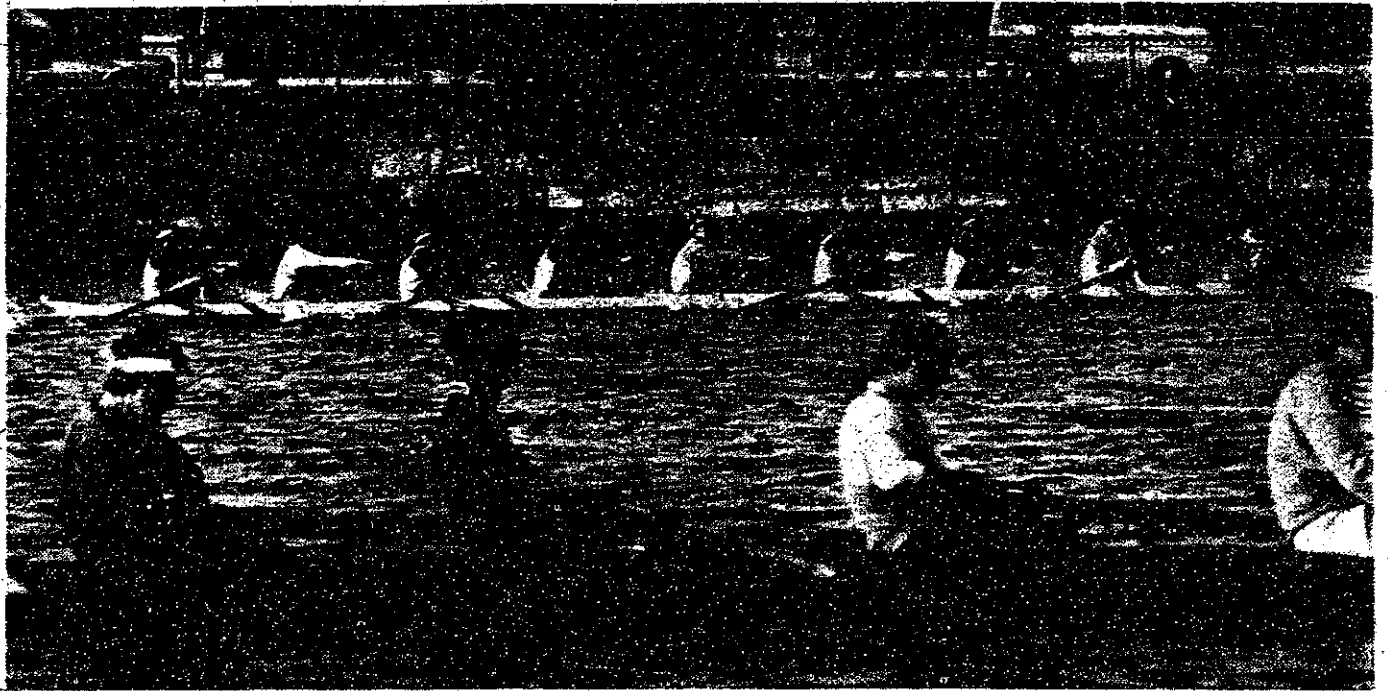


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SPORTS



Above left, the MIT women's crew rows in the junior eight-oared race. They qualified for the final by finishing second in their heat, and placed fourth in final race, competing against all-male crews. Above right, the "Lightning Crew" of the Class of '72 (background) begins to move out in the inter-class event. Class of '73 stroke Pete Billings looks over at the sophomore boat in the picture at right. Coxswain of the boat is John Malarkey '71, ex-light varsity captain. Open your eyes, John! Below, the stern four of the women's eight holds a four-seat advantage over a group of hard pulling Wellesley girls. MIT won by 1/3 of a boatlength.



Photos by Brad Billedeaux

MacG wins Richards; '72 cops class victory

By Brad Billedeaux

MacGregor House won the race for senior eights to highlight MIT crew's annual Class Day Regatta last Saturday on the Charles River. In the traditional interclass event, the Class of '72 came through like champions — defeating their sophomore and junior underlings.

This marked the second consecutive triumph for the MacGregorites, rowing under their "Sunkist Lemon" colors, in the Richards' Cup race. Coxed by varsity veteran Dave Burns '72, the MacGregor eight held off continued challenges by Delta Upsilon to win by a little less than a length over the 1500 meter course. DU was stroked by former lightweight varsity captain Bruce Anderson '69.

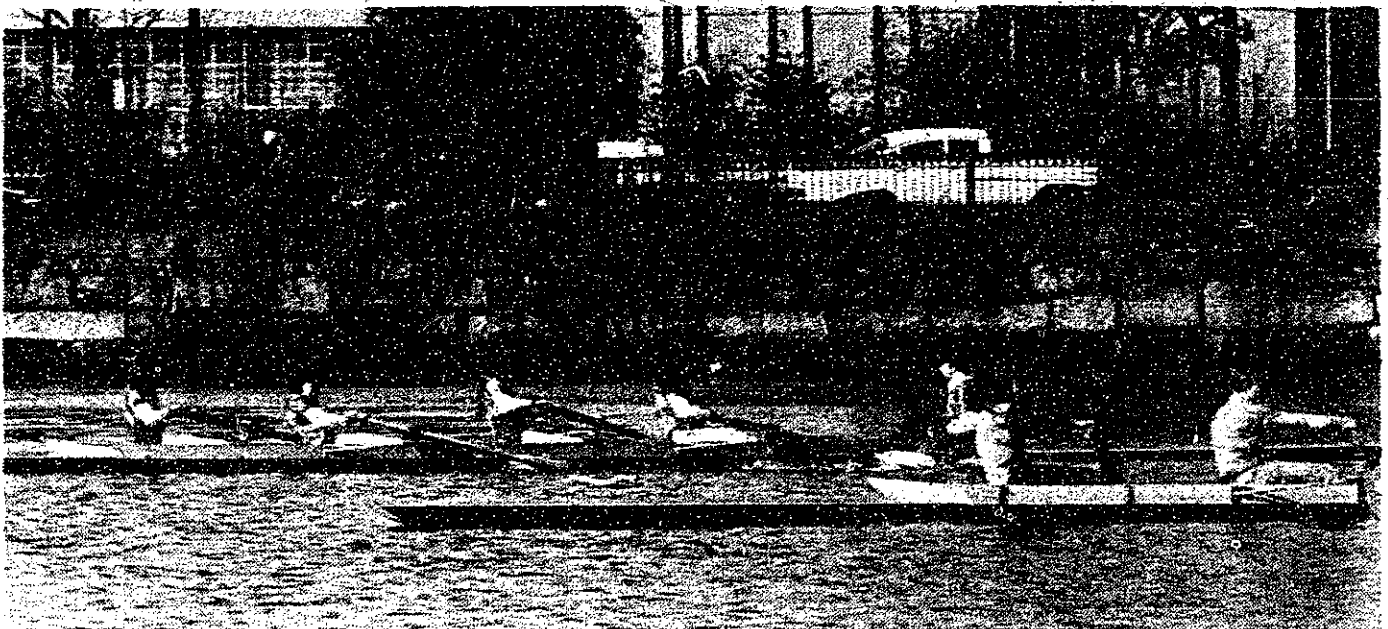
"The Lightning Crew" of the Class of '72 got out in front by a length and held that advantage throughout in a close race for the inter-class championship. Rowing in a windy chill, the seniors had a good start and gradually moved to a considerable lead over the juniors in the first 500 meters. Then a battle ensued as the sophomores challenged and gained second place over the faltering juniors. The "Filosa Bombers" (Class of '74) moved steadily on the "Perimother Express" (Class of '73) and then made a bid for the lead as the crews passed on the Pierce Boathouse. But the more experienced seniors successfully maintained the edge in the last 500 meters, winning by about a length. The victorious Lightning Crew was composed of Steve Chessin, cox.; Mike Rowny, stroke; Gary Stahl, 7; Vance Smith, 6; Larry Bahler, 5; Joe Clift, 4; Charles Goodrich, 3;

Dag Horn, 2; and Bob Reiter, bow.

The MIT women's crew had a very active day, competing as an eight-oared crew in the junior eights category and as two four-oared crews in a race against Wellesley College. The stern four of the girls' eight beat the visitors from Wellesley by one-third of a boatlength in 600 meter contest. Members of the crew are: Eric Shaefer '75, cox; Jane Ward '73, stroke; Jan Henze '73; Jan Sharpless, Janice Benson '74, Barb Small '72, Judy Fairchild '75, Susan Ashworth '75 and Natalie Parks '73, bow.

In other events, Conner 5 won the junior eights race, and a group of MIT graduates competing as the Intergalactic Rowing Club just edged Burton House by one seat in the senior fours. "Jock of the Day" award goes to varsity heavyweight candidate Larry Esposito '73, who rowed in six races, three heats and three finals.

The frosh heavies trounced the lights by three lengths in a 2000 meter race. The heavies' real opponent were the Northeastern freshmen, against whom they didn't fare as well, losing by half a length.



Sailors first in coed event

MIT's men and women sailors closed out their regular season this past weekend, as they participated in two coed invitational regattas on the Charles River. Although both all-male and all-female teams were present at both events, most schools entered teams comprised of members of both their men's and women's squads.

On Saturday, Tech's representatives placed first, besting

runner-up Harvard by seven points. The morning races were plagued by light and variable winds, but a brisk northeast breeze in the afternoon made the competition more interesting.

Maria Bozzuto '73 and Walter Frank '74 co-skippered MIT's A-Division entry, tying for first place in their division. Lynn Roylance '72 and Randy Young '74 sailed in Division B, winning

low-point honors. Participating schools were MIT 26, Harvard 33, Northeastern 44, Boston University 47, Coast Guard 47, Tufts 61, Yale 65, Newton College 71, Amherst 82, Stonehill 82, Skidmore 112.

On Sunday, in a regatta shortened due to lack of wind, Shelley Bernstein '74, Martha Donahue '75, Steve Shantzis '72, and Frank Keil '73 sailed the MIT squad to a fourth place finish in the seven-school fleet. Due to the conditions, only three races were sailed.

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