sits-in on Dow recruiter



Vol. 87, No. 43 Cambridge, Mass., Tuesday, Nov. 7, 1967 5c

Meeting set for tonight to explore school plan

By Jack Katz

Because people generally listen when Dr. Jerome Lettvin speaks, MIT could one day embark on a radically different concept in high schools—an institution taught by college students receiving ting in the Ford Building against the SDS. academic credit for their efforts.

At a meeting scheduled for 8 pm tonight in the West Lounge of the Student Center, discussion will be entertained on ideas for an MIT financed high school taught by undergraduates catering to the Cambridge community. An ad hoc group headed by Mark Spitzer '68, Richard Adelstein '68, Bill Carlson '68, Jerry Grochow formulate the proposals for eventual presentation to President Johnson for Institutional approv-

\$10 million estimated need

to an acceptable project.

Not allowed to teach Dr. Lettvin first made the pro-(Please turn to Page 3)

Protest remains peaceful: YAF counter-demonstrates

Fears of violence proved unfounded as the SDS and the Committee to End the War in Vietnam sponsored a peaceful protest against a recruiter from the Dow Chemical Company yesterday morning.

The protesters assembled at 9 am in front of the Student Center where they held a rally to seek further publicity for their cause-Dow's production of napalm for the Vietnam war. After the rally, the protesters, numbering about 70, headed to the Ford Building for a 10 am confrontation with the recruiter in the Placement Bureau.

Fill hallway

They continued to the fourth floor of the building, where they scattered throughout the hallway, since there was not enough room. The purpose of the colloquim was for all of them in the entry to the Placement Bureau. There they to hold an organized, objective awaited the arrival of the Dow recruiter.

Once in the Ford Building, the protesters did not physically prevent any students from entering the Placement Bureau. Lt. James included President Howard John-Olivieri of the Campus Patrol, who had stationed extra forces in the son, who delivered the introducbuilding in case of trouble, explained that all students seemed able tory talk. Dow's Max Key, Dito get through to interviews and that there was "no trouble."

Take interviews

Although the SDS members did not physically bar any job applicants, another form of strategy was employed with the same end result. Many students who had absolutely no interest in working for Dow requested interviews to waste the recruiter's time.

One of these SDS members had been able to get the first interview with the recruiter. This student later recounted the details of his interview to passers-by from the steps of the Student Center. He explained that the recruiter claimed that production of napalm was only a small portion of Dow's enterprises. The student then asked the recruiter why Dow would continue to produce an item of such little consequence to its financial well-being when so many potential employees are driven away. The recruiter answered (perhaps, in jest) that the napalm issue keeps Dow in the public light and probably gains more applicants.

YAF counters

In response to the SDS protest, the Young Americans for Free- against the fighting. Chairman of dom developed a counter-demonstration in order to support Dow's the Faculty Walter A. Rosenblith right to recruit on campus. Approximately 15 people, including some served as chairman for the meetwho vigorously opposed the War in Vietnam, but who still felt that ing. Dow had a right to interview, aired the YAF's views by demonstra-

(Please turn to Page 6)

CAP begins discussion

Reading Period Changes de Dated

By Mark Bolotin

Last year's Reading Period experiment may '68, and Dave Peterson '68 will pave the way to major alterations of Reading Period and Examination Period. Armed with a SCEP report on Reading Period changes, the Faculty Committee on Academic Performance has begun discussion of the problem.

In a conference with The Tech Friday before According to Peterson, esti- CAP met to discuss Reading Period, Professor E. mates have it that MIT could Neal Hartley, Chairman of CAP, explained the devote \$10 million over 10 years possible recommendations his committee might

No change

CAP might recommend the continuation of posal at the MIT Myth Confer- the system of old Reading Period and Examination ence two weeks ago, although he Period. There would be a three-day Reading Period and three-hour finals would be held over five

days-in both the mornings and the afternoons.

CAP might suggest that last year's Reading Period experiment be continued. This proposal calls for a five-day Reading Period plus the weekend free both before and after. Finals would be still spread over the mornings and afternoons of five days.

No Reading Period

OCAP could present a plan to incorporate where the Dow interviews are to Reading Period and Finals Week into an extended take place, and with President Examination Period. This proposal, which is be- Howard Johnson. Dean Wadleigh, ing supported by SCEP, has examinations given however, refused to comment on only once a day over the 10-day period. This plan what sort of action would be received the editorial support of The Tech in the taken against demonstrators if issues of May 9 and October 27.

CAP could suggest some combination of these between the acceptable and the (Please turn to Page 2)

Dow director speaks at Kresge colloquium; Deans discuss action

Held yesterday in Kresge Auditorium, an open forum met to discuss social responsibilities, in particular the use of napalm in the Vietnam war. The forum was sponsored by an ad hoc faculty committee, chaired by Professor Murray Eden of the Electrical Engineering department. The topic under discussion was "Napalm, Vietnam and the University." discussion of the napalm issue.

Speakers at this open forum rector of Industrial Relations, discussed his company's position on supplying napalm to the Defense Department. Following Key, Dr. Frank Ervin of the Harvard Medical School and the Massachusetts General Hospital, discussed his medical mission, from which he had just returned, to aid napalm victims in Vietnam. He spoke against use of incendiaries.

Professor Ithiel Pool, Head of the Department of Political Science, and an advisor to the government on Vietnamese policy, spoke for the war, and was followed by Philip Morrison, Professor of Physics, who spoke

Another meeting

Another group also took action last weekend. Before the anti-Dow demonstrators had even planned their tactics, the Dean's office had held a discussion of what would be done to prevent a violent demonstration, and what sort of action should be taken against protestors who became carried away with their efforts to draw attention to the anti-war cause.

Deans confer

Dean of Student Affairs Kenneth R. Wadleigh conferred with Associate Dean Jay Hammerness, with Thomas W. Harrington, Director of the Placement Bureau, they stepped over the boundary unacceptable.

Junior Prom, Field Day mark active weekend

Field Day tradition falls as sophs defeat frosh

By Peter Meschter

In one of the most bitterly contested and enthusiastically battled Field Days of recent times, an outnumbered "Red Baron" sophomore class triumphed over the "Snoopy" freshmen last Saturday. The victory represented the first time since 1960 that the class of an even-numbered year has won Field Day.

Sophomores had stolen most of the special T-shirts which the freshmen had had made up for Field Day. Many of these shirts appeared on sophomores, with the original Snoopy cartoon covered by the sophomore class symbol in red.

10 for Beaver Key

The first event, a pumpkin pie-eating contest between living-group representalives of the two classes, came to a premature end when the pie-eaters became pie-throwers. Beaver Key awarded itself the 10 points at stake in the con-

photo by Larry Stuart-Deutsch

Jubilant sophomores hoist President Joe Bisaccio on their shoulders when they learn of Field Day victory. Gaining the cup, the sophomores broke the tradition of odd numbered classes winning the frosh-soph rivalry. The job of cleaning up the field fell to the freshmen.

Junior Prom succeeds socially and financially

An unprecedented number of partial ticket sales offset a slight drop in the number of full weekend tickets to make JP '67 the first financially successful JP in recent years. Full weekend sales totaled 825, down from 873 last year, but over 1100 couples were present at the Saturday concert, and a record 1200 couples were present at the Saturday night

The formal dance Friday night went smoothly and was highlighted by the crowning of the JP queen, Miss Linda Kilburn of Wellesley College, the date of Dave Kiser (SC).

Saturday success

The large turnout for the concert Saturday afternoon was rewarded with an enthusiastic performance from the Lovin' Spoonful. The weekend's one major crisis was discovered by the JP committee before the concert. Tests of the sound system in the Back Bay Theatre proved

(Please turn to Page 12)

(Please turn to Page 3)

'ATO' sign tops Sheraton as stunt finally succeeds

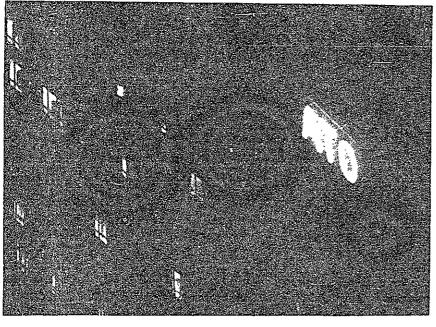


photo by Larry-Stuart Deutsch

Five letters of the electric sign atop the Sheraton Hotel were blacked out Friday night when several members of Alpha Tau Omega managed to carry out a plan delayed from last Halloween. and used a portable frame to change the lettering.

fraternity on campus. Not many onds while fitting the cover. knew at the time, however, how the trick was accomplished.

bers of the ATO house, but they '70. postponed it because of the high! winds. However, the foldable frame built for the occasion was preserved.

At 9:20 pm Friday night the five climbed to the top of the Sheraton with their frame, which was covered with a plastic coated oil cloth. There they discovered that they could turn off the letters

FBI questions Chomsky about draft card return

Two MIT professors, along with at least one from Harvard, and several students have been questioned by the FBI concerning their part in the Oct. 20 demonstration in Washington. The two MIT faculty members, Professors Noam Chomsky and Louis Kampf, were questioned in connection with the draft cards they sent to the Justice Department in protest against the war

Although none are elegible for the draft, they are subject to the same penalties which resisters of draft age face. Neither of the professors signed the waivers which gave the FBI the right to use the evidence from the interviews in court, although Prof. Chomsky reports that several students did so without thinking, when they were interviewed.

According to Chomsky, the FBI is interviewing all those who turned in draft cards during the Washington demonstrations. In his case, he says, they were able to establish little more than the fact that he had turned in his card, for he refused to answer any but factual questions which were asked him.

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Anyone not too occupied Friday SHER by a switch, a fact they night may have noticed that the had not known last year. They large sign atop the Sheraton Hotel used the rest of their frame to read not "SHERATON" but cover the N of the sign turning off 'ATO," in honor of a certain the letters ATON for about 45 sec-

Those participating in the coup were Biran O'Connor '68, Con The act was planned for Hal- Foley '69, George McKinney '70, loween a year ago by five mem- Ed Johnson 71, and Steve Barr

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SCEP poll

Students seek one final per

(Continued from Page 1) ideas, such as a shortened Reading Period and a

lengthened Exam Period.

• CAP might present one of these proposals on an experimental basis for the spring term. Experimentation

Reading Period was extended for the spring term last year on an experimental basis at the urging of SCEP. Although, according to Prof. Hartley, the Faculty expressed "relatively little enthusiasm" for the plan, they accepted the change as a basis for gathering comparative data.

At that time, members of the Faculty felt that the extra two days of formal instruction were worth more in class than out. Other considerations were concerned less with the actual length of Reading Period than with the form itself.

Who profits?

Another question raised sought to determine which people would profit most by the lengthened Reading Period. Bids were put in for humanities students (more time needed for reading courses),

upperclassmen (their maturity should allow better use of the extra time), and freshmen (they have rigid schedules, especially at exam time)

SCEP poll Despite this opposition, the experiment was abproved by the faculty when confronted with a SCEP report. The report consisted of a poll conducted in the spring of 1966 to determine students' desires about Reading Period. This poll showed that 35% preferred a lengthened Reading Period:

27% favored no change in Reading Period; 22%

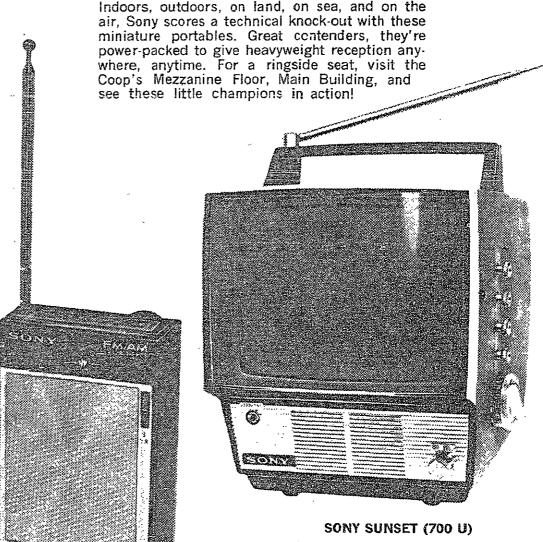
wished for a short Reading Period with exams scheduled on alternate days; and 16% preferred a short Reading Period and a lengthened Exam Per. iod with only one test per day.

The SCEP report also pointed out advantages of a lengthened Reading Period. Some students felt that a short Reading Period could only lead to cramming. Others claimed that the major fault with the present system was that a student could have two exams on a single day.

(Please turn to Page 7)

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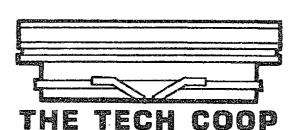
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photo by Bill Ingram

Field Day 1967 was topped off by the glove fight between the Freshman and Sophomore classes. The sophomores are shown here using some of the less brutal techniques which won the contest and Field Day for them.

"Vietnam: A Conflict of Buddhist and Western Values?" by Mrs. Le Thi Anh.

by Mrs. Le Thi Anh,
Vietnamese Buddhist Author
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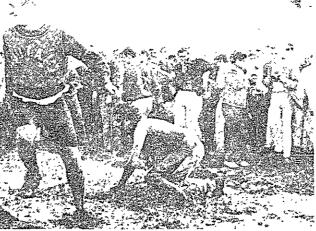


photo by Larry-Stuart Deutsch

Beaver Key member Herb Finger is photographed following the Field Day tug-of-war, when he was pushed into the mud by his roommate, a member of the Class of '71.

(Continued from Page 1)

The next event was a 200-yard race between biplanes, which were pushed down the field by 10 members of each class. The lighter freshman plane won easily. The sophomores were awarded six points for having stolen the freshman kite, which would have been flown from the plane, and the freshmen nine points for winning the race.

Sophs hop away

A mystery event entitled "Charlie Brown Express" followed. It was a tandem three-legged race, with 25 pairs of students from each class tied together. The sophomores won the race and 10 points by hopping on their free legs down the 50-yard course, easily defeating the tangled freshmen.

Tug-of-war

The numerical superiority of the Class of '71 was convincingly proven in the unlimited tug-of-war. The sophs fought hard, but their officers were quickly dragged through the mud-bath between the two classes. A similar fate befell the



photo by Jim Martin

Joe Bisaccio, President of the Sophomore Class, headed the line for the "unlimited" tugof-war during Field Day, which was won by the Class of 1970.

sophomore coeds in their tug-of-war. The score at this point was freshmen 24, sophomores 16, and Beaver Key 10, so that Beaver Key did not have to award "sportsmanship points" or change the 35-point scoring of the glove fight to maintain the contest.

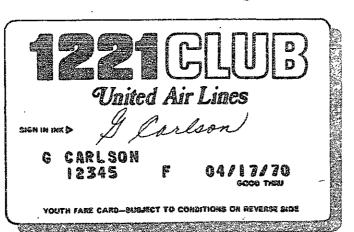
In the glove fight the sophomores, outnumbered almost two to one, managed to stay together for the first few minutes before the fight degenerated into hand-to-hand combat. Both sides took gloves freely, but the sophomores gathered the greater weight of gloves by a small margin and emerged from the weighing room with the Field Day cup.

Bisaccio speaks

Class of 1970 president Joe Bisaccio commented on his class's victory: "It was close, but we won because we had more spirit."

In general, Field Day this year seemed to be less well attended, as it has been in previous years. Nevertheless, it provided morning entertainment for numerous MIT students and their JP dates.

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Student teaching plan proposed by Lettvin

(Continued from Page 1)

had had the idea for quite some time. He offered his services to the Cambridge school system, but was told he was not qualified to teach as he had no state teaching certificate. Dr. Lettvin holds professorships at MIT in Electrical Engineering and Biology; he teaches a course in Humanities.

Lettvin was first approached about the possibility of giving academic credit to students teaching at the Science Day Camp. For this idea he envisioned a far broader project, and suggested founding a student-run high school which could both serve the community and give academic credit to students in a new educational experience.

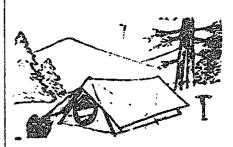
Reaction favorable

Reaction to the proposal by students and administration was considered favorable — though guarded. President Johnson and others felt that some autonomous group ought to thoroughly explore the issues and present some serious, well-thought-out, and complete proposal to him.

Still in initial stage

Nothing as yet can be said to be beyond the initial discussion stages, but the main lines of thinking are being quickly devel-

(Please turn to Page 12)



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Professors and instructors at the university level have not had education courses, nor does their teaching ability significantly affect their future in the academic realm. Tenure is still evaluated by colleagues using such criteria as research output, expertise and general reputation in the particular field, and published material. The ability to communicate ideas effectively to a class of undergraduates is considered minimally in the tenure decision process at best. Nor does later advancement in the amademic hierarchy hinge very critically on actual pedagogical talents.

The quality of teaching at the undergraduate level remains largely a student problem. The initiative for suggested improvements, the encouragement of better performance, the awards for excellence fall to interested students and student groups to do something about.

SCEP now provides teacher evaluation questionnaires for any instructor who requests them. The results of the feedback are evaluated by the individual instructor and are for him to use or ignore.

Each spring the Baker Foundation presents the Outstanding Undergraduate Teaching Award to one or more distinguished, untenured professors who have contributed significantly to the quality of teaching. The \$250 cash gift and the associated medal are meant to recognize excellence, and hopefully to influence subsequent tenure decisions so that the high quality teachers will remain at MIT.

The Goodwin Medal is primarily a faculty selection with student input which recognizes graduate students who have performed "conspicuously effectively over and above ordinary excellence."

What constitutes good teaching? The Baker Foundation has its own criteria: the ability of the teacher to stimulate deeper thinking and interest among the students; the ability to communicate effectively the ideas of the course without mere repetition of a text; the willingness to experiment with the course structure, the willingness to discuss topics of concern with the students by maintaining liberal visiting hours, and encouraging those visits; and the desire to go outside the formal bounds of teacher-student relationships, to contribute to the total development of those he comes in contact with.

Back in April, 1966 the Faculty Committee on Educational Policy (CEP) held a meeting for the general faculty and a number of students at which time a number of factors in good teaching were mentioned. These included: (1) preparation; (2) organization and presentation of material, (3) good personal student contact. and (4), that spark of interest, that enthusiasm of a teacher for his material. To this we would add the encouragement of classroom response and discussion. Too many courses are merely monologues addressed to the sleeping masses.

Of course, student responsibility in the teaching process can not be neglected. Intelligent discussion is impossible if the students choose to be absent or ill-prepared. Nothing is more frustrating for an instructor than to attempt a discussion in an area in which no one in the class has done any reading.

In regard to personal contacts, too many students never want to discuss anything with an instructor outside of class. This is a serious mistake which unfortunately limits a student's educational experience. The faculty of this Institute are remarkably willing to put aside their research, publishing, and other academic chores to just sit down and "shoot the bull." But the student who never seeks out his professor, who never takes advantage of the opportunity to discuss any topic, related to the course material or not, is getting shortchanged on his tuition.

As one small advance in encouraging better teaching and suggesting better teaching methods, we will feature in "Faculty Spotlight" some of the more inspired, if lesser known instructors, asking them questions about their philosophy of instruction, their techniques, and what brought them to MIT. Although we do not wish to sponsor a popularity contest, we would like to hear from any students who know of professors who are conspicuously good teachers. Suggestions may be mailed to W20-483, or dropped off directly at our offices.

Letters to

Chess club checkmate

To the Editor:

The Chess Club, which has regular meetings Saturday and Sunday afternoons in room 491 of vance, are "first served" with the Student Center, scheduled a scarce space in the Student Cen- by an editor's note containing tournament for this Saturday ter, and not pushed aside in 4 hours, and started publicity of the event. Today (Tuesday) we were informed by SCC that because of a meeting of the National Association of Student Unions on Saturday, room 491 would not be available until 3:30 p.m. The Strategic Games Society, which has a fixed event on Saturday To the Editor: only, was similarly affected.

availability is not unique. In the ton House (The Tech-last 3 issues) last year and a half, the Chess with great disgust and pity. Dis-Club has been arbitrarily moved gust that The Tech concentrates at least five times; the current its efforts upon one living group instance represents one of the and pity for the poor Burtonites. earlier notices which we have The Tower Association is proud received.

tired of the flagrant disregard 29 shades of Institute grey. This of SCC for "permanent" room immense, aesthetic project was reservations. Recognizing that conceived, financed, and engineermeetings of overriding import ed by the Association itself (the ance must sometimes take up East Campus 4th and 5th floor most or all of the room in the extravaganza depleted the Senior Student Center, we nevertheless House building fund.) So - what's feel that SCC should inform hold- so special about Burton? ers of permanent room reservations of displacements at least

2 weeks in advance, or not make the changes at all.

It is high time that SCC acted responsibly to insure that the "first come," who planned in ad-(Nov. 4) which would take about favor of those who did not plan far enough in advance to reserve the proper amount of room.

> Peter Meschter, '69 Chess Club George Phillies '68 Strategic Games Society

Of Viking red

The Runkel Towers Association This sudden change in room has followed the exploits of Burof its Viking red, bronze trimmed Some activities are getting halls - infinitely superior to the

> Fred Kummer '71 Towers Association Sec.

Stephen wonders

To the Editor:

Dear Michael, I wonder if anyone could address a letter to this column and not have it succeeded your own opinionated commentary upon the subject treated.

I am not a journalist, but it is my understanding that an editor's note should be used to supply factual correction to, historical background for, and /or to relate happenings pertinent to a reader's letter. It is my opinion that your views are for your part of the page only.

And I welcome any factual corrections to my letter, which, I repeat (for your benefit only), is my opinion.

Stephen L. Weinberg '69

(Ed. note: Dear Stephen, First some factual information. Of the 15 letters printed prior to this issue thus far this term, 7 had no Ed. notes; 2 contained Ed. notes apologetic only; 3 had purely factual replies; 1 was half opinion, half fact, and 2 were clearly opinionated replies. As to your concern over the nature of an Ed. note-what can I say? We have a difference of opinion. Michael.)

The Ivory Tower

Russian orbital weapon to experiment with the course structure, to innovate with an eye to improvement; COULO PROPER OFMS FOCE

By Steve Carhart

The new orbital nuclear weapons system apparently under development by the Soviet Union should prompt a reevaluation of our ideas on US-Soviet relationships. The Soviet "fractional orbital bombardment system" (FOBS) announced by Secretary of Defense McNamara last week could place nuclear missiles in a low earth orbit from which they could be launched at any time, giving the US as little as three minutes' warning of an impending attack as compared to fifteen minutes for an ICBM attack. This new weapon, following as it does the deployment of the Soviet anti-ballistic missile (ABM), indicates a desire on the part of the Kremlin to upset the relatively stable situation in the strategic weapons arena which has prevailed since the introduction of the ICBM.

No advantages? Despite Secretary McNamara's assurances that the advantage of such an orbital system are negligible and that a newly developed would be a violation of the intent radar will negate them, it seems if not the letter of the recent doubtful that the US will be able treaty barning nuclear weapons to avoid increasing its own efforts in space. Although the missile in the strategic weapons field in could be fired before making a the face of such a determined new full orbit and therefore would not effort in Russia. As nice as it technically be "in space," a piece would be not to be faced with a of paper would mean very little potential new arms race, we must were the Russians to refrain from remember that confidence in its pressing the button the first time strategic forces is an indispensable around. Those who enthusiastically political tool for a superpower in encourage reconciliation with the

Under these circumstances, the by the attitude which has promost desirable goal which we have duced first the ABM system and any chance at all of attaining is now the FOBS. Without ceasing to that of keeping competition at a look for ways to ease tensions, we low key; beyond a certain point, must realize that the "mellowing" the degree of weapons sophistica- process in Russia still has a long tion is relatively unimportant so way to go.

long as neither side feels that its weapons are inferior. This has been a major goal of US foreign policy, as exemplified by our unsuccessful attempts to reach some sort of agreement with the Soviets limiting the deployment of the ABM.

Unusual circumstances

Under normal circumstances. neither side gains any tangible benefits from an increase in the level of weapons sophistication. assuming the other side undertakes a comparable buildup. However, the Soviet Union stands to gain a great deal more than it would under normal peacetime conditions due to US involvement in Vietnam. Burdened with a budget carrying \$25 billion for Vietnam and facing an enormous deficit already, the US is in no condition at this time to undertake the development of new strategic weapons without major economic dislocations.

A sobering event

The deployment of the FORS the conduct of its foreign policy. Soviet Union should be sobered



Chairman

Vol. LXXXVII, No. 43

November 6, 1967

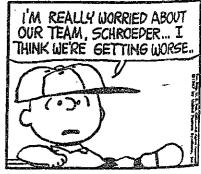
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Front page photo of the Green Building by Steve Gretter.









Six strive for title of 'Ugly Man on Campus'

By Greg Bernhardt

Six undergraduates have been dredged up to compete in Alpha Phil Omega's "Ugly Man on Campus" contest. If previous contests are any indication, competition can be expected to be stiff and the race will go right down ceeds of the contest to a charit-



Alan Chapman

Ed Krugman

many votes as he wishes. Voting is open to the entire MIT Community. APO will donate the proable causes the American Cancer Society. This year's contestants exhibit

an unusual range of deformities, mutations, and deviations.

Their qualifications

one cent and one may cast as

Contestant Alan Chapman '70 of TEP, boasts a running nose, infested hair, trench mouth, athlete's feet, and a waist size of 9.7 x 10.3 mm. Coming from the phylum Barfahelofalot, Chapman describes himself as "hideous ugly, repulsive, unsightly."

Not to be outdone is Gregg "STUMP" Erickson '69 of DU. STUMP'S assets include a well picked nose, clubbed feet, one red and two blue eyes, no chest, and no shoes. STUMP classifies himself in the phylum chewum-



Gregg Erickson

uled to begin Monday and last to be 100% waste, which gives to pieces.' until Friday. Each vote will cost him a considerable lead over Chapman, who was only 99 44/ 100% waste.

Long odor half-life

From Baker comes "Klondike" Ed Krugman '70. Klondike is hairy, droots, wears size 18EEE shoes, and stands 14 light years high. His odor half-life was found to be too long to compute and analysis showed him to be an utter waste. Klondie amassed the largest number of signatures on his petition, which must mean something. Describing his qualifications, Klondike pointed out that, "Nobody knows how ugly I am. They can't look at me long enough to find out."

In reply to Baker, Burton scrounged around and found John Charles Thomas Salerno '71. Salerno can be recognized by copious hair, several eyes (at last count), pseudopodia, and a mass of 681 x 10.5 mg. Salerno is from the phylum Deformis, class Crassus. Describing his nose, he remarked that he "nose only gross jokes." Salerno feels himself to be qualified since he has a "warped mind in a deformed body."

Fishy story

Also from Burton, Wazoo floor, is Irving G. Sassoon '69. Irving is unique in that he does not fit into any phylum. He has no hair, no eyes, three noses, and a foaming mouth. Irving commented on his "discovery," saying, "I was discovered in a neighborhood fish store lounging in a window tank along with the eels. I was relaxing after a strenuous session pulling wedges out of lobsters' claws so

Photos by Alan Goldberg

to the wire. The voting is sched- bytum. An analysis showed him they'd be free to tear each other in the name of any of the candi-

Mostly hair

Last of the contestants is Fernando the Bull, alias Peter Wulkan '68 of Bexley. Fernando is a member of the phylum Taurus Excrementus, class Very Little. He can be recognized by a hairdo complete with a bird's nest and caterpillars. About his abundant hair, Fernando said, "Not satisfied with normal head-to-toe ugliness, I have added extra inches of ugliness in the form of a distinctive halo. Fernando will be a tough contender, stating that he has "single-handedly grossed out the entire populations of Cambridge, Mass., Visegrad, Yugoslavia, and Kitchener, Ontario.

'The Blob'

APO will once again run a movie to gain publicity for the UMOC contest and to help gather funds for the American Cancer Society. "The Blob" will be shown in Room 10-250 at 7 pm and again at 9:30 Wednesday, Nov. 11. The admission of 35c may be donated

dates.

Last year's drive, which netted \$558.28 for charity was won by Mel Basan '68. Basan refused to tell The Tech why he did not choose to run this year, but, according to informed sources, he sent a lengthy letter to APO with his full support for one of the candidates.



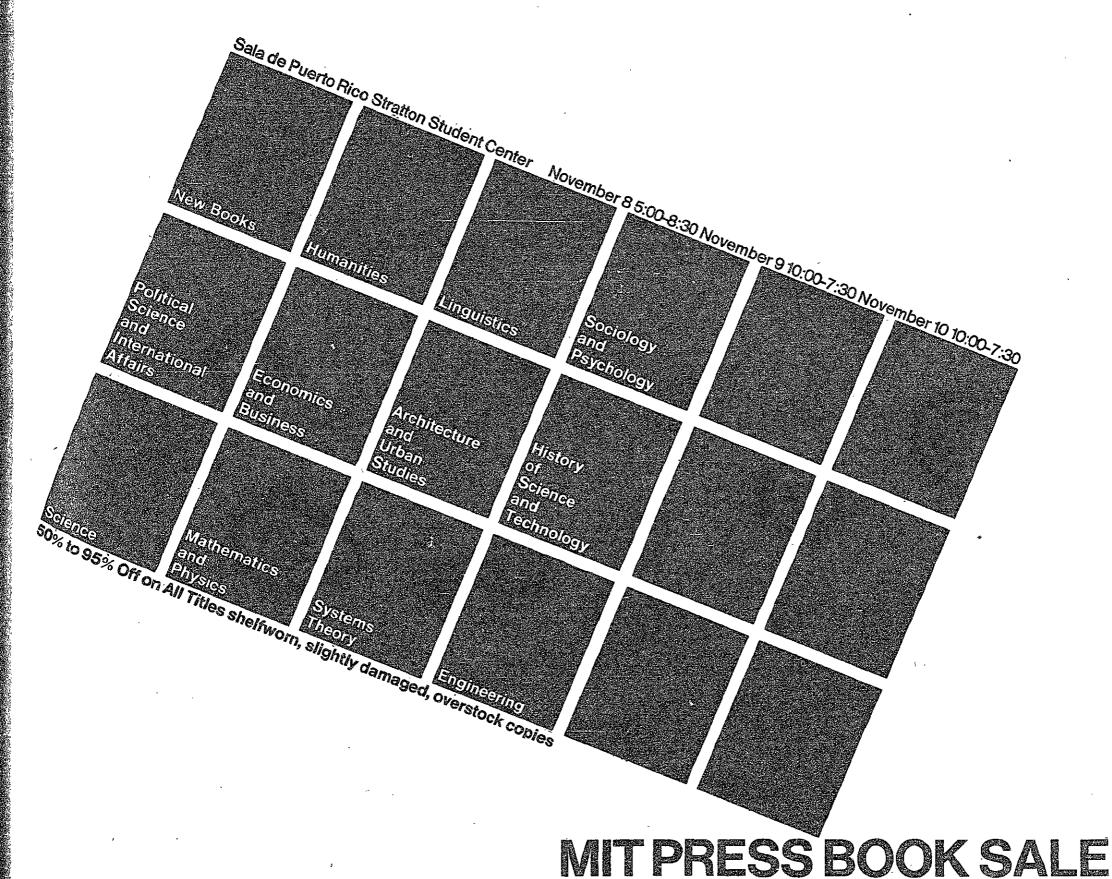
John Salerno



Peter Wulkan



Irving G. Sassoon



Protest determined Sun.

(Continued from Page 1)

The YAF hopes to show that the majority of MIT students support their position by means of a petition reaffirming Dow's right to recruit on campus.

Planning of protest

The format for the protest was planned at an SDS meeting held Sunday evening whose sole purpose was to decide the form of protest to be employed against Dow recruitment on campus. One student in attendance at the meeting remarked that it was "perhaps the only planned political activity of its kind at MIT."

In a flyer, the SDS gave the reasons for its specific protest of Dow. SDS differentiates Dow from all other defense industries by virtue of the fact that napalm. which it produces, carries with it a "much more direct and immediate connotation of inhumanity than do other military products which go into the war effort. MIT, by ignoring the "atrocious implications of napalm," becomes by letting Dow recruit on its campus, an accomplice to the atrocities - in the minds of the student protestors.

Three representatives

Three representatives for the protesting group were chosen. They were: Professor Jerrold Katz of the Department of Humanities, Ed Lucas '68, and Abe Igelfeld '69.

The meeting adopted the statement that "It is the overwhelming decision of the meeting, which included undergraduates, graduates, teaching fellows, and faculty, to conduct on the occasion of Dow Chemical Company's recruiting at MTT a non-obstructive sit-in to protest the war in Vietnam."

There were four main proposals that were voted on at the meeting. They were: obstructive sitin at the Ford Building or President Johnson's office: non-obstructive sit-in at the Ford Building or President Johnson's office: a picket; and an information drive at Kresge.

Will complicity in war

What became evident at the meeting was that a general consensus of goals of 'the protest did not exist. Some people argued that they wanted to protest MIT's complicity in the war. Others said the protest was directed against the war in general.

The argument against MIT complicity lost ground at the meeting. Related proposals such as ending recruitment by the 400 top defense contractors were also dismissed. MIT's existence is so involved with government con-

The Tech wishes to apologize for the delayed appearance of the last issue. Due to a power failure at our printer's, it was impossible to distribute the paper for the normal Friday deadline.

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tracts that extension of the pro- would act as a group after a de-

Actually war protest

that Dow's appearance is merely an occasion to protest the war. In regard to protesting Dow itself, he claimed the students were no "US Steel for making bullets or the technology used in the war."

Other complications developed. There were fears by some that too radical a protest might have a reactionary effect on today's Camassurances that the attendants that it's responsible."

posals would lead to its shut down. cision was voted upon. It was also thought that a protest must be chosen which would not cause un-It was Professor Katz's opinion favorable reaction in the student

Six Wellesley girls attended the meeting and also protested. They & J 10 7 5 2 heard about the meeting through \$872 more doing that than protesting personal sources. Kenneth R. Wadleigh, Dean of Student Af-MIT for making possible some of fairs, stated that if trouble developed the girls would be asked to leave first.

'Responsible' protest

bridge referendum on the Viet-gun, Dean Wadleigh explained nam War. One participant in the that he was pleased with the demmeeting asked for some form of onstration-"pleased in the sense

Once the actual protest had be-

4 K 8 **9987**

> A Q 10 7 🛡 QJ642 & K 9 3

North

46532

AQ84

East

4 J 9 4

♦ K93

& Q 10 4

South

9 10 3

Neither Vulnerable

South West 1 🔷 Pass Pass Pass

In today's hand, both sides engaged in some tactical warfare,

Kibitzer

📨 By Philip Selwyn 📨

but it was the defense who came out victorious.

South's tactical contribution came during the bidding. East failed to open an "obvious" INT because he was playing "weak" No Trumps. He, therefore, had to open 1 Club, planning to rebid 1 NT to show a balanced 15-17 A A J 65 points.

> South had a distinct problem over 1 Club. He did not want in make a take-out double with no tolerance for diamonds. He also felt that if he bid 1 Heart now, the bidding might get too high for him to show his spade suit later. He therefore chose the clever bid of 1 Spade. North's clear-cut raise to 2 Spades ended the auction.

(Please turn to Page 10)

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Babcok & Wilcox will be at MIT on Nov. 16 to interview bachelor and graduate degree candidates in Mechanical Engineering, Chemical Engineering, Chemistry, Metallurgy. Babcock & Wilcox

Extended Reading Period favored strongly

(Continued from Page 2)

to see Reading Period extended, Reading Period by studying more SCEP's report acknowledged would be moved forward, placing

period. As a higher percentage period seemed to be a function the students polled felt that the stitute regulations. However, there pose of Reading Period. of students with grade point aver- of the individual student. Many extended Reading Period is an were few complaints from stu-

This spring, SCEP conducted a there is indication that the stu-efficiently because of lessened that problems did arise during the the student under increased pres-

scool poll. The results of this dent with lower grades benefits pressure, while for others, the experiment. Some courses with- sure. As a result, many students poll further indicated that a large more from Reading Period than lengthened Reading Period only out finals had end-of-term papers spent the first few days of Readamount of "cramming" is associ- the student with higher grades. "prolonged the agony" of finals. or projects due during Reading ing Period on courses without ated with the shorter Reading Performance during Reading Nevertheless, a vast majority of Period in direct violation of Infinals, despite the intended purages of 4.0 or higher did not want students reacted to the lengthened improvement over the old set-up. dents; for, otherwise, the due date

On the basis of this poll SCEP (Please turn to Page 11)

"Want a company that thinks you're as good as your ideas, not your age? See IBM Nov. 15th or 16th."

"I wanted a job where I could stand out and move ahead fast," says IBM's Bill Sherrard. (Bill graduated with a B.S. in Math in 1964.) "And I sensed there was a better chance to do that with IBM than with the other companies I interviewed.

"I got a desk full of responsibility right after I started. This gave me the chance to show what I could do. And if you deliver, age doesn't hold you back." (Bill is a Programming Department Manager, supervising 13 systems analysts and programmers.)

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Sign up for an interview at your placement office, even if you're headed for graduate school or military service. And if you can't make a campus interview, send an outline of your interests and educational background to J. E. Bull, IBM Corporation, 425 Park Avenue, New York, New York 10022. We're an equal opportunity employer.



The Harvard Gilbert and Sullivan Players, in the press release announcing their current production, "Patience," made the rather boastful claim that they have "be-Boston." After viewing "Pa-zance" and "Yeomen of the again Wednesday through Satur- not in a small part to the Meilys. understand what brought on the "Patience" sports a collection of

have appropriated two of the MIT Stephen Michaels as Reginald formers, Herb and Jacqueline until the arrival of Archibald Meily.

Superior Leads

"Patience" stands head - andcome pre-eminent among the Gil- shoulders above Harvard's two bert and Sullivan groups around shows last year, "Pirates of Pentience," which will be presented Guard." and the difference is due day of this week, it is easy to Unlike "Pirates" and "Yeomen," attack of hubris. The "Players" leads notable for the consistently superior level of their performances. Herbert Meily's Colonel Calverley glows, whether as the bluff martinet of the heavy dragoons or the embarrassed imis the target of Gilbert's spoof.

Scciety's most brilliant per-Bunthorne, the "fleshly poet" who Grosvenor, an "idyllic poet," is the object of adulation of the "chorus of rapturous maidens," draws laughs with every nuance of his disjointed, ambling gait, every hurt look or scheming smile. Danius Turek's Grosvenor adds a powerful voice to his model of self-satisfied narcissism. And James Paul as a nasal Duke of Dunstable, commander of the dragoons is a portly caricature of the aristocratic snob.

Jacqueline Meily's faithfulness and fickleness as Lady Jane provide the outstanding female peritator of the aesthetic style that formance of the evening. Her

(Please turn to Page 9)

The Bee Gees have now established themselves with form straight hit singles. Following the usual import pattern, they have also had notable success in the US. They are managed by NEMS Ltd., which also controls such groups as the Cream and the Who The late Brian Epstein, discoverer of the Beatles, also founded NEMS and brought fame to the Bee Gees.

Distribution contract

The following quote is from the May 13 issue of Billboard "The potential for British groups in the US was reaffirmed by Atco Records last week when the company shelled out \$250,000 for the exclusive distribution right to recordings by the Bee Gees." (Assuming approximately 20 cents profit to the distributor, per record sold, the Bee Gees had to sell about 1,250,000 records before Atco could start to realize a profit on the deal.)

"The Bee Gees, a male foursome, are considered to be the hottest act to break in England since the Beatles came to the tope four years ago. Their first record, "New . York Mining Disaster 1941." released a little more than a week ago, stirred up lots of sales excitement. Atco will release the record here on Monday

Steps leading to fame

"For the past three years the Bee Gees have been the top recording act in Australia. They have had a series of number one records in Australia, and have won a large number of awards as performers, record sellers, and songwriters.

"Barry, Robin, and Maurice Gibb, three of the four Bee Gees, have been together since 1958, when their average age was ten Drummer Colin Peterson made the act a foursome in February The group signed with NEMS that same month and immediately started a series of record sessions." (Vince Melouney also joined the group this summer.)

"Atco Records is planning to launch the biggest promotion and advertising campaign in its history for the Bee Gee's exposure in the US. It's expected that the group will come to the US in a few months for promotional tours and TV appearances."

Success of records

That first record leveled off at 12 in Britain and 14 in the US. It should be one of the strongest entries for to song of 1967 in Japuary's third annual Talking Rock poll. "To Love Somebody" reached 17 here. Their third single, "Holiday," is nearing its American peak at 21. These three singles were on "The Bee Gees' First" album, one of the few imported albums to retain all the original cuts (14). It is now at 17 and rising on Billboard's lp list.

New single

"(The Lights Went Out In) Massachusetts" has now been number one in Britain for three weeks, their first top-rated single there Written by the three Gibb brothers, it is still short of "New York Mining Disaster 1941" as a work of art, although it easily has the most commercial potential of any of their singles so far. It should become their biggest American hit yet.

Movie . . . Infidelity is main theme of comedy 'Birds, Bees'

By John Lowenstein

"The Birds, the Bees, and the Italians" is a black and white, subtitled Italian comedy. In con- pathos and emotion. There is one trast to American comedy films, man whose wife is an unbearable it lacks spectacle, gadgetry, and nag. He falls in love with a casha large budget. But it's as funny ier in a cafe, and runs away with a film as you'll see for some her. But he is forced to come time.

The main comedy theme is in- in jail and an insane asylum. fidelity. The episodes of the film involve the same group of friends, on slapstick, sex, marriage, and but each one focuses on different pathos. The film is earthy, and members. And each member is at warmly human; this is where it one time or another unfaithful to differs from American comedies. his wife. Some episodes are pure All characters are believable, alfun, such as the one in which one though one would hope not to get man feigns impotence. His friend, into quite so much trouble as they a doctor, thinks his impotence is do.

funny, until the man sleeps with the doctor's wife.

Other parts are touched with back to his wife after being put

The comedy scenes are based

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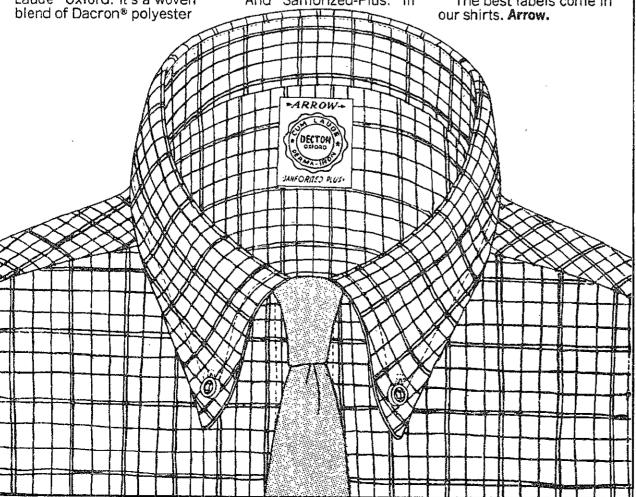
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Choreography, direction, orchestra deserve praise Singer Tim Buckley shows talent

By Randy Hawthorne

An overpowering and intensely commanding performance has been occurring nightly at the newly opened Catacombs this past week. The performer—Tim Buckley. The performance—extraordinary. In his studio recording, Buckley makes full use of orchestral strings coupled with other random sounds, as evidenced in his two releases to date. Live, however. there is only Tim playing an ac coustical twelve-string, being accompanied by Lee Underwood on lead guitar and Carter C. C. Collins on conga drums, seemingly a scanty instrumental backing for such a powerful singer. Surprisingly the three produce a sound which is continually total and precise-a sound equally as satisfying as any engineered sound. In fact to watch the three working in such close coordination and to be mesmerized by the emotion generated by Buckley's voice is, in itself, a complete musical experi-

The songs, written by Tim Buckley and fellow Californian Larry Beckett, are constructed as contemporary free verse set to music. Throughout the absolute silence which would envelop the room penetrates Buckley's voicecrisp, dominant, and most importantly sincere. The backing, dimension to the total sound. Al- in the near future.



Tim Buckley, Elektra recording artist, appeared last week at sometimes haunting, sometimes the Catacombs, a newly opened coffee house. He played acouscommanding, yet always full, tical twelve string, accompanied only by lead guitar and conga drums.

provided by Underwood and Col- though conga drums are seldom His current LP. "Goodbye and lins, is superb. Underwood's gui- heard today, Collins' approach is Hello," has been well received by tar work is intended to replace much more fitting to Buckley's the critics. The title song, along the entire string section used in style than any regular drumming with "Once I Was" and "Mornstudio recording. Not only does he would have provided. The three ing Glory" are the most captivasubstitute for the absence of or- were so impressive that Elektra ting. His images are simple, but chestration but he adds a new is considering taping a live album effective:

(Please turn to Page 10)

(Continued from Page 8)

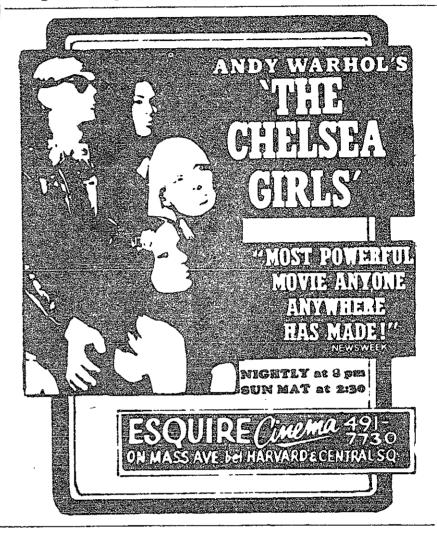
portrayal of unswerving devotion to Bunthorne superseded by unhesitating desertion to Dunstable in the finale is simply delightful. Patience, the dairymaid who has loved nobody but her great aunt, Theatre stage prevents it from is played with bounce and swirl- ever seeming that way, and ing skirts by Myra Durkin.

Rainbow-hued costumes

Charlotte Prince's rainbow- ingly fresh and inventive. hued costumes successfully cam- Harvard's Gilbert and Sullivan ouflage the absence of color and Players in the past have most imagination in Randall Darwall's certainly not been "pre-eminent" garden and gazebo. The orchestra, in Boston, but a production of conducted by Vincent Canzoneri, "Patience's" quality deserves at

forming group as last year's, does justice to Sullivan's melodic score. Special praise must be accorded stage director James Henry Burt, whose ability to handle crowd scenes on the cramped Agassiz choreographer Lindsay Ann Crouse, whose dances are appeal-

although not as tightly knit a per- least the accolade of "eminent."



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Nameless Coffeehouse debuts

poetry reading.

ends have been anyone, including twelve stringed guitar arrangethis writer, whose guitar case or ments of popular, folk, and folk-Dylan Thomas book identified him rock compositions. Also to be as musician or poetry interpreter. heard occasionally are Steve Ehr-

Kibitzer

(Continued from Page 6)

Although a diamond lead might have been better for the defense, x2871. Because it seems that no West chose to lead the 2 of Clubs, his partner's suit. Declarer played low from dummy and won East's J with the K. He crossed to dummy's diamond Ace to lead a spade to his Q, losing to West's K.

Declarer outsmarted

Now East-West cooperated beautifully to dupe declarer into outsmarting himself. West led a club to East's Ace. East then led a third round of clubs to dummy's Q to make it seem like he wanted dummy to be on lead for another spade finesse. Just as East hoped, declarer only partially saw through this play. He led a spade to the Ace, expecting to drop the J, only to find that he had been double-crossed, because the finesse was on all the time!

Next declarer led a heart to the 10 which East won. He cashed the J of spades, on which West discarded a diamond, and paused to take stock of the entire hand. Since South had shown up with 4 spades and 3 clubs, he was marked for exactly 6 red cards. East had to determine how they were distributed. If West had five or more hearts, he probably would have thrown a heart instead of a diamond on the third spade lead. This meant that South was unlikely to have fewer than four hearts and consequently more than two diamonds.

Furthermore, if he had 4-3-3-3 distribution, he probably would have preferred a takeout double to an overcall on a four card suit. But there was one additional clue which really gave the answer. South did not take the diamond finesse at trick two, which he certainly would have done with two or more diamonds. The only real possibility then was that declarer held only one diamond and therefore five hearts and elected to bid his shorter spade suit!

East makes move

Confident now that this was the case, East made the necessary and killing play of the K of diamonds. Declarer ruffed this trick and gained a diamond trick in the process. However since the hearts were not yet established and the trump he just used was his last hand entry, he still had to give up one heart trick to East and one diamond trick to West for down

er palie man iob dylan

Less than a month ago a new day nights have not been large, coffeehouse opened in a church the booking of known local talent off Harvard Square, at 3 Church should stimulate attendance. Per-Street. Beset with the challenge forming this Friday will be Joan of creating a new name and im- Minkoff and Joan Pearlman on age, the sponsors rejected the dulcimer and autoharp. Having Greek and medieval allusions of played previously at the Turk's other clubs in the area. Instead, Head, the Cellar, and the Sword they adopted a strictly informal, in the Stone, these girls provide relaxed atmosphere in The Name- an enticing program of music unless Coffeehouse. The entertain- familiar to most music lovers. The ment consists of folk music and following Friday night, Erik Erikson, a regular performer from The entertainers of past week- The Unicorn, will present his mann '71, reading his own poetry and Zane Segal '71 performing folk guitar.

> Anyone interested in performing at The Nameless Coffeehouse should contact Sherman Hannah, one around Harvard knows where Church Street is, though it is exactly one block from the center of Harvard Square, anyone inter-

Though the audiences of past Fri- ested in the coffeehouse should contact either Hannah, Ehrmann, or Segal for directions. There is no cover charge, but patrons are requested to donate as much as they would like to help defray the costs of semi-professional talent. Support from the MIT community for this very congenial coffeehouse would help it rise even faster than it has in its first month of existence.

> M.I.T. Dramashop will present Bertolt Brecht's "Drums in The Night," directed by Joseph D. Everingham as the major fall production December 13 thru 16. Tryouts will be held tonight in the Little Theatre at 7:30 p.m.

INDIAN RAGAS One Appearance only USTAD ALI AKBAR KHAN No. Indian Master of the Sarod Symphony Hall Wednesday, Nov. 29 - 8:30

Tickets Symphony Hall Box Office

Buckley's singing creates total musical experience

(Continued from Page 9) to my

Window, hoping it would catch the eye, Of any vagabond who passed

And I waited in my fleeting such time his record is an excelbouse.

Unfortunately his engagement is lit my purest candle close over and he will return to the West Coast. An investment in 'Goodbye and Hello' (Elektra) would, however, certainly be wise. The opportunity to see him live should not be wasted, but until lent substitute.



wednesday sunday (repeat)

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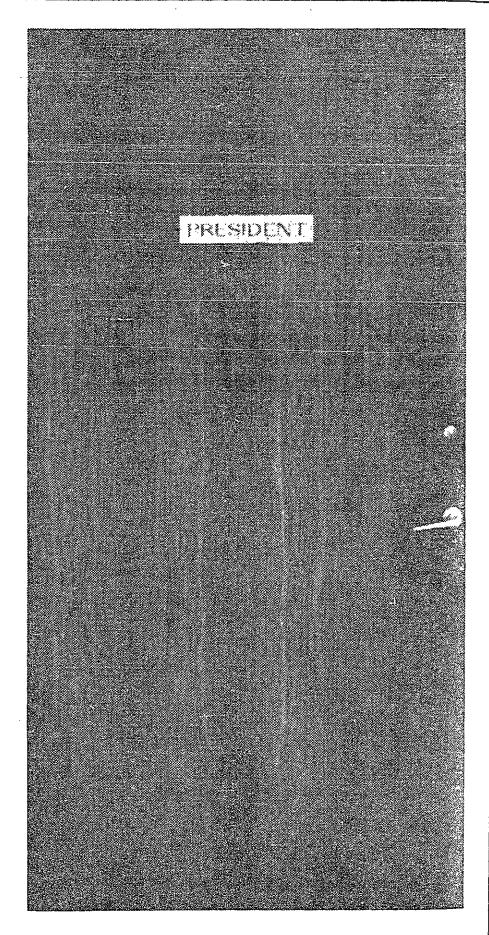
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sponsor mixer Saturday

Featured entertainment will be York only this week. Travis Pike's Tea Party, one of Boston scene. Travis Pike has Europe and composed the score Waltham, Horn's Forest.

versity's Charlesgate Dormitory in Good." The eTa Party, eight will cosponsor a mixer this Satur- months in formation, has been day night from 8:00 pm until featured on WRKO for the past midnight in the Sala de Puerto three weeks and has returned Rico of the MIT Student Center. from a recording session in New

Negotiations are under way to the new groups emerging on the film part of Saturday's mixer for had wide experience in the vari- an upcoming television special on ous modes of music, having led the group. Backup entertainment the number one show band in will be provided by a group from

Burton, BU's Charlesgate SCEP proposes longer exam period

(Continued from Page 7) Burton House and Boston Uni- for the wide-screen musical "Feel- recommended that another exper- no more than one final per day. He was unhappy that no better imental reading-final exam period be tried this term. Under this When asked about the SCEP one third of the students respondproposal, classes would end on a report, Jack Frailey, Director of ed. In particular, he sought a Friday, with Saturday through Student Aid, and a member of controlled experiment on the val-Monday as Reading Period, CAP, admitted that he had not ue of the various proposals, in exams Tuesday through Friday, yet formulated an opinion about addition to student opinions. Saturday and Sunday as Reading Reading Period changes. How-Period, then exams Monday ever, he noted that even a cursory through Friday. Exams would be glance at the report strengthened held only in the afternoons. Pre- his belief that the "opinion of the sumably this system would al- students is a meaningful thing and low enough flexibility in schedul- ought not to be treated lightly." ing to give, effectively, a length- Professor Peter Griffith, an-

surance that a student would have preciation to SCEP for the report. Views of CAP

ened Reading Period plus the as- other CAP member, expressed ap-

input was available and that only

'A week'

Professor Griffith explained that he favored the idea of an extended Reading Period, but added that this was a purely personal decision. He explained that, in the subject he teaches, he found it necessary to allow students a portion of Reading Period for presentation of projects. Professor Griffith added, "I wouldn't mind having a week there — but that's out of the question!"

Professor Hartley explained his @ interpretation of the SCEP report - its "clear to me" that the students are more concerned with the problems of two exams in a single day than with an extended Reading Period.

Beyond the computer Nevertheless, he expressed doubts that the problem could be (Please turn to Page 14)

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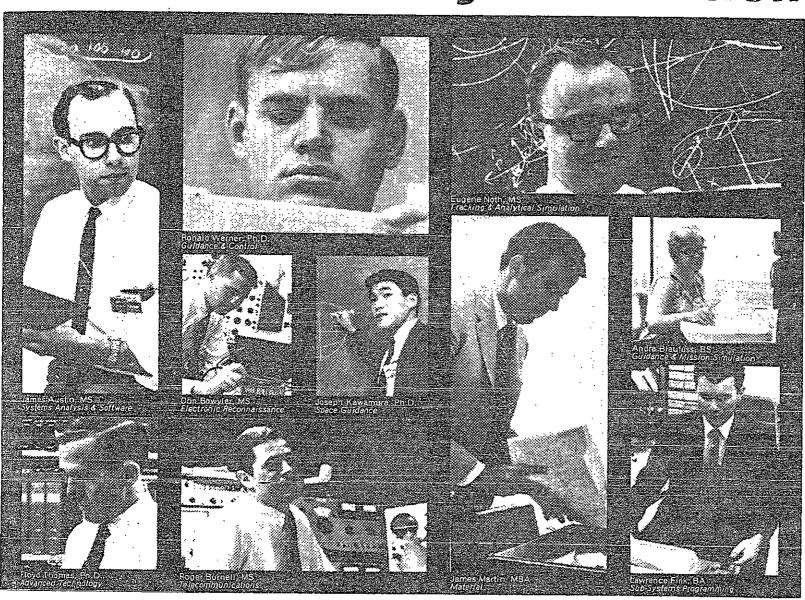


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SEE YOUR PLACEMENT OFFICE

Spoonful, Berry concerts highlight JP activities



Miss Linda Kilburn of Wellesley College, the date of Dave Shelby Fleet, Dick Moen, and Kiser (SC), is named JP Queen at the formal dance Friday night. Carl Weiss. Bruce Enders, Bob Helping Miss Kilburn with her ribbon are Russ Apfel (left) and Schaeffer, and Dinah Schiffer Ray Paret, both of the Junior Prom Committee.

(Continued from Page 1) it woefully inadequate for the Spoonful's sound, so substitute equipment was procured. After some discussion, the Spoonful agreed to foot the bill for the replacement gear. Those in attendance Saturday night were typically enthusiastic and gave a warm reception to Chuck Berry and the Ill Winds.

Congratulations are in order for the Class of 1969 Executive Committee and the other members of JP Committee. The Executive Committee members include President Mark Mathis, Anderson, Russ Apfel, Bill Berry, photo by Mike Meyers Shelley Fleet, Dick Moen, and staffed the JP Committee.



বিভিন্ত ৰ প্ৰাছিত কৰি কৰিছে। বিভাগিত কৈ বিভাগিত কৰি বিভাগিত কৰি বিভাগিত কৰিছে বিভাগিত কৰিছে বিভাগিত কৰিছে ই এই তেওঁ একৰ এক এই ১৯ তেওঁ কৰিছে। বিভাগিত কৰিছে চিটা একি বিভাগিত কৰিছে বিভাগিত কৰিছে বিভাগিত কৰিছে ই এই সংগ্ৰহণ কৰ

photo by Larry-Stuart Deutsch

Joe Butler, drummer for "The Lovin' Spoonful," joins in the song as he twirls his drumstick. The "Spoonful" entertained an appreciative JP audience in the Back Bay Theater on Saturday afternoon. The concert was followed by an evening blast in the



photo by Larry-Stuart Deutsch Chuck Berry, famed rock 'n roll singer, takes a momentary break from the singing. Berry performed at the Saturday night blast.

Lettvin envisions school taught by MIT students

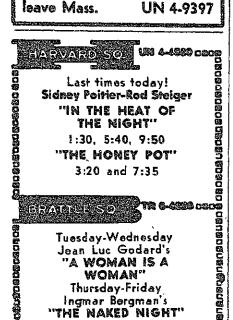
(Continued from Page 3)

oped. A plan would call for such a high school to draw from the local community; the faculty would be MIT undergraduates teaching for academic credit, and possibly graduate students teaching for money. Students would probably teach no more than one hour a day, and each course would be the responsibility of a team of three students of different years to insure continuity.

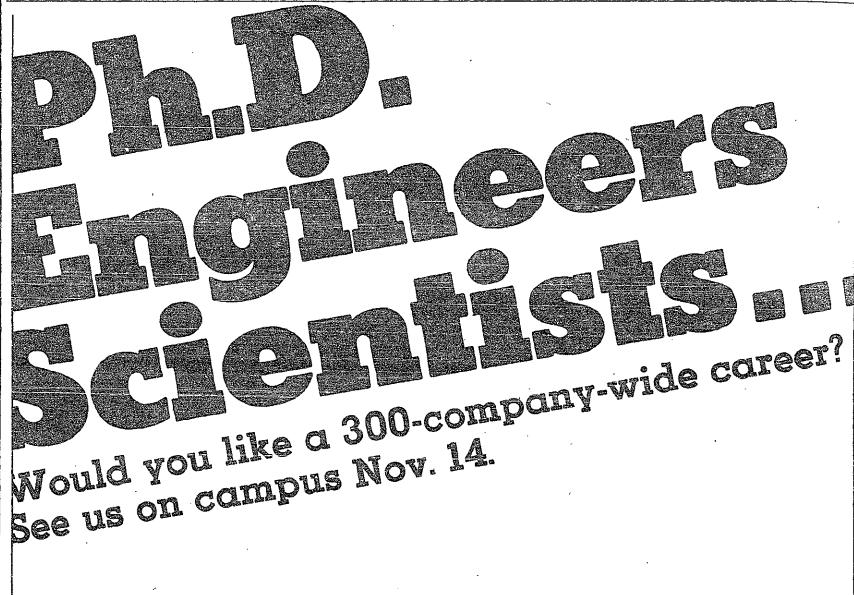
Flexible and different

It would be expected that such a school would be flexible and innovative, operating as it would on such radically different principles from traditional high schools.

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Special memory used

Apollo computers built by Instrumentation Lab

This week's initial test of the each flight determines its own Saturn V moon rocket will em- wiring sequence, all flight proploy guidance and navigation systems designed by the MIT Instrumentation Laboratory. The basic flight guidance program built into the on-board computer is codenamed "Solarium" and was writ- god, the different programs for ten and verified at the Instrumen- the various flights in the Apollo tation Laboratory. Solarium is an series have names related to the enormously detailed sequence of sun. The program for the first coded instructions and a library unmanned orbital test of the Lunof required information which is ar Module is code named Sunpermanently built into the guid- burst, while Sundisk and Sunance computer.

Core rope Memories

Guidance computers employ high-density fixed core rope memories - tiny iron-nickel cores woven together with thousands of copper wires and encapsulated in plastic. This type of memory has the advantage of being permanent and virtually indestructible. Since

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dance will control the first manned orbital test.

Main components

Guidance and navigation systems in the command and lunar modules are very similar and consist of three principal subsystems: an intertial measurement unit of gyroscopes and accelermeters isolated from spacecraft motion by concentric spherical gimbals providing a stable on-board frame of reference in which spacecraft position is tracked; an optical subsystem that enables astronauts to make navigational fixes in space using stars and landmarks on the earth and moon; and the computer subsystem.

Core rope advantages

Core rope memory has many advantages which make it well adapted to use in spacecraft computers. A vast amount of data can be stored in a very small volume; the single cubic foot of the fixed memory portion has a capacity of 36,864 sixteen bit words. Furthermore, core rope memory is permanent; stored information is permanently fixed at the time of fabrication by the manner in which copper wires thread or bypass tiny magnetic

Dr. Richard H. Battin, Associate Director of the Instrumentation Laboratory, is in charge of the development of flight programs for specific missions from the mission objectives set down by the Manned Spacecraft Center.

New computer

High-speed computers are used to generate and verify mission programs. The machine which handles these chores is an IBM 360/75, which recently replaced two Honeywell 1800 machines.

After the programs have been verified, computers produce reels of perforated tapes which are sent to the Raytheon Co., to control and check the weaving machines. In all, it takes approximately one year to compelte an Apollo flight guidance program.

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don't necessarily have to spend a lifetime working on the same job in the same place. We have operations all over the world. Chances are you'll get to try your hand at more than one of them. Our interviewer will be on campus soon. If you're wondering whether it's possible to find challenging work in big business, please arrange to see him. He speaks for 130 "companies."

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CAP slowed by complications of scheduling

(Continued from Page 11) easily solved. Professor Hartley explained that the computer, which now prepares the examina-14,000 exams there only 200 conflicts. To place on the program the additional constraint that no person should have two finals in a single day would appear to be impossible.

When he was asked by The Tech if the experiment suggested by SCEP would alleviate this problem of two constraints by spreading the exams over nine days. Professor Hartley explained that, first of all, there was not enough time to plan any change from the ed, we became even more aware standard Reading Period for this of the elements which complisemester - "to do anything would cate . . . we proposed to ask the be grossly unfair to instructors." Registrar (Warren Wells, a mem-If SCEP's proposal were attemp- ber of CAP, who was absent from ted for the spring term, the in- the meeting) to try to work out terference of Memorial Day would the best picture he can of what leave only eight days for exams, actually happens in the end of Further, even nine days presents term stretch." This picture of the problems for the program.

Value of Reading Period

Week were combined, he contin- many undergraduates and graduued, there is, in effect, the elimination of Reading Period. To do so would be to decide that "Reading Period, per se, has no educational value."

When Reading Period was instituted at MIT in the 1952-1953 academic year, it was intended to allow students to "integrate the work of their courses and to prepare for final examinations." It was seen as a way for more mature and interested students to

ity on an independent basis.

Following CAP's meeting Friday, Professor Hartley issued a statement to The Tech. He warned avoid conflict examinations. It cally tentative" and that, even if succeeds admirably well; out of approved by CAP, all decisions would-have to be passed by the Committee on Educational Policy and then approved by the Faculty.

> He interpreted the consensus of the CAP to be that "if the Reading Period and the Examination Period were to be separate . . . we, ourselves, would clearly prefer last spring's longer Reading Period over the older, shorter Reading Period.

Seek information

"In the next place, as we talkend of the term would determine if there were patterns in exams within departments or by years, If Reading Period and Exam in incidence of finals, or in how ates have finals (separate concern for graduate students results from the fact that the SCEP report did not include a poll of graduate students, but suggested

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during the second week of the that a decision could be reached strong support to the experiment Examination Period).

of Reading Period had been de-day, Nov. 20. "Hopefully," the ty. He felt that this resulted nri. tion schedule, is programmed to that the "conclusions are emphati- layed, while CAP debated the proposal would be ready for pre- marily from the fact that "the question of "normal progress sentation at the December meet- more things one sees as a whole toward a degree' for determina- ing of the Faculty (Wednesday, around MIT . . . (pause) the largtion of II-S deferments, Profes- Dec. 20).

as soon as possible - perhaps at Professor Hartley admitted that Despite the fact that discussion the next committee meeting Fri- there was opposition in the Facul-

maximize their learning opportun- that graduate finals be given sor Hartley expressed the hope. Although last year's CAP gave er the willingness to experiment."

I wom't go into business when I graduate because:

□ a. I'd lose my individuality.

b. It's graduate school for me.

c. My mother wants me to be a doctor.

Can't argue with c), but before you check a) or b)—pencils up! There have been some changes. Drastic changes in the business scene. But changes in the vox populi attitude regarding business . . . especially on campus

... just haven't kept pace. Take the belabored point that business turns you into a jellyfish. The men who run most of the nation's successful firms didn't arrive by nepotism, by trusting an Ouija board, or by agreeing with their bosses. Along the way, a well-modulated "No" was said. And backed up with the savvy and guts today's business demands.

In short, individuality is highly prized in much of the business world-the successful much. Even when the business is big. Like Western Electric, the manufacturing and supply unit of the Bell System.

We provide communications equipment for

our Bell System teammates, the Bell telephone companies. This takes a lot of thought, decisions, strong stands for our convictions, (and sometimes some mistakes ... we're human, every 160,000 of us).

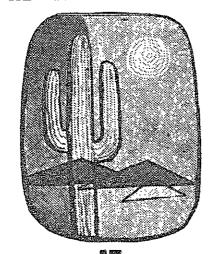
Individuality pays off. Not only in raises. but in personal reward as well. Like an engineer who knew deep down that there was a better way to make a certain wire connector -and did. Or a WE gal who streamlined timeconsuming office procedures, and saved us some \$63,000 a year.

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National Magnet Laboratory honors late director Bitter

The National Magnet Laboratory will be renamed in a special remony November 21 in honor of the late Dr. Francis Bitter, memer of the faculty, and one of the world's leading authorities on magnetism, who died last July. The ceremony will follow a confernce held the preceding day at which leading physicists will review the history and current status of research with magnetic fields.

Culmination of work

The National Magnet Laboratory represented the culmination of Bitter's work—he played a central role in its design and construcand his experiments in it produced the strongest continuous gelds ever achieved, in 1964. The laboratory, sponsored by the Air force Office of Scientific Research, is still the home of the world's _{most} powerful magnet.

Among those who will be present at the renaming ceremony are or, Vannevar Bush, Honorary Chairman of the Corporation; Presdent Howard Johnson; Dr. Julius A. Stratton, President emeritus: Brig. Gen. Leo A. Kiley, Deputy Director of Development, Office of he Deputy Chief of Staff, USAF; Alexander H. Flax, Assistant Secletary of the Air Force; and Professor Benjamin Lax, Director of the Laboratory.

Symposium schedule

The symposium on November 20 will begin at 9:15 am in Kresge ittle Theatre. During the morning session, the speakers will be: Prof. Thomas Erber, Il nois Institute of Technology; Professor Nichlas Kurti, Oxford University; D. Bruce Montgomery, National Maget Laboratory; and Prof. John H. van Vleck, Harvard University. Speakers for the afternoon portion of the program will be: Prof. Arthur J. Freeman, Northwestern University, presiding over the meeting; Dean Emeritus George R. Harrison; Prof. Lax; Prof. Jean Brossell, Ecole Normale Superieur, University of Paris; and Nobel bureate Edward Purcell, Harvard University.

Bitter magnet designed

Dr. Bitter first became interested in magnetism as a Guggenleim Fellow at Cambridge in 1934, when he was associated with Peter Kapitza. After his return to the United States as an associate rofessor in the Department of Mining and Metallurgy (now the bepartment of Metallurgy) Dr. Bitter attempted to produce susained strong magnetic fields. He solved the problem by designing magnet, called the Bitter Magnet, through which enough water hould be pumped to carry away the heat generated by the current the system. With this design he achieved a field of 100,000 gauss 1939. The magnet now in the Laboratory produced 250,000 gauss 1964, while one currently under development is expected to pro-

Although Dr. Bitter was appointed associate dean of the school science in 1956, he resigned in 1960 to work full time at the agers. National Magnet Laboratory.

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...aslong as it's big enough. (Of course, we have our own opinion on the best beer for the glass.)

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Budweiser ...best reason in the world to drink beer

frosh

Kickers downed by Andover

By Scott Ramos

proved to be the downfall of MIT's kickers as they dropped a 3-1 decision to Phillips Andover. The taking the victory.

Again it was Gerry Maskiewicz who generated Tech's only scoring threats, booming one in following a corner kick in the second quarter. Andover had taken the lead in the first quarter on a fine shot inside the penalty area.

In the second half, Andover took the lead and added an extra point as the engineers failed to puncture the nets again. The first of the two came when goalie Aaron Tovich was drawn out of the goalie box to deflect a shot, only to have it stolen and put into the nets in an almost impossible shot.

Mow They Did

Norwich 2, MIT (V) 1 Phillips Andover 2, MIT (F) I

MIT (V) 5th in Schelle Trophy MIT (F) 6th in Priddy Trophy

IM Council meeting scheduled for tonight

There will be an Intramural Council meeting tonight at 7:30 in the Varsity Club Lounge. The agenda includes a review of the constitution, reports from fall and winter managers and election of table tennis, squash and rifle man-

The schedule of upcoming IM events has also been released, and is as follows:

November 7 IM Council Meeting November 10 Hockey rosters due November 13 Wrestling rosters due November 17 Wrestling begins November 18 Wrestling finals

Lack of energy and a wet field left hand corner of the goal scored 97. brought about the final score.

Sailors Finish Sixth

MIT finished 6th overall, just one them to a sixth place in their freshman meet, with Tech repre- final competition of a fine year.

A 30-yard boot into the upper- point behind Coast Guard which

Twelve races were run in the sented by Jim Adler, Clint Gif-The Coast Guard Academy ford, and Jim Glowienka. Adler host prep school displayed much hosted the Priddy Trophy last skippered all of the races, and more talent and enthusiasm in Saturday and Sunday and saw a Gifford and Glowienka split up tight race to determine the the crew work. The sailors started and ended strong, with a first in Brown University took the the opening race on Saturday and championship with 124 total a third in the closing race on points.* Closely following were Sunday. They also had another Harvard (119) and Tufts (113.). first, but the stiff competition kept

Renowned clavichordist Benson to give free recital here tonight



Joan Benson, well-known clavichordist, will give a free concert tonight in the Sala de Puerto Rico. She has been an important figure in the revival of this instrument, and has performed and lectured in many major universities.

Joan Benson, one of the world's leading clavichord performers, will give a performance tonight at 8:15 in the Sala de Puerto Rico. The recital is free and open to the public.

The program lists the "Rondo" in B flat minor and "Freie Fantasie" in F sharp minor by C.P.E. Bach, "Capriccio" in D minor by W. F. Bach, and "Moderato" in B flat major by Joseph Haydn. In addition, Miss Benson will play 16th century Spanish, Italian, and Polish works, some of the earliest music written for keyboard instruments:

Although she began her career as a pianist, her search for delicate sounds and effects in music led her to begin study of the clavichord ten years ago, and she has since become an important figure in its revival. Miss Benson has performed and lectured in major universities and museums throughout the United States and Europe. She recently returned from a tour to the Near and Far East where she encouraged the growing interest in clavichord music.

Since 1961 she has been a member of the music department at Stanford University and has appeared as guest artist for the Carmel (Calif.) Bach Festival and the Stanford Mozart Festival.





Intramural football ended a week ago, but there are still several things to be learned from the season. One of the most important is how the new rules and emphasis affected the number and type of injuries. Manager Pat Green '69 stated that he has not had time to compare this year's injury reports with the unofficial records kept by the medical department in the past, but he feels that injuries were down from last year.

A large portion of this is probably due to the added emphasis on injuries in the material sent out to athletic chairmen this year. Referees were also in general more aware of the injury situation this year than in the past. Another small factor could have been the mouth guard requirement instituted this year.

Referees needed

However, several problems still remain in the system. One of these is the lack of competent referees. The experiment tried this year of having each house provide one referee per team was slightly unsuccessful. Toward the end of the season, about forty percent of the houses were not doing this. The possibility of having this many games forfeited each weekend presented itself and was rejected. Next year, hopefully, this will only have to happen the first few weekends of the season, after which the house athletic chairmen will get the idea.

Another problem was the quality of refereeing. Some houses sent officials who knew little or nothing about the intramural rules; some sent officials who failed to show up for games; others sent officials who were afraid to call fouls which they saw.

Program for officials

The possibility exists that an independent program for referees may be set up in the future to insure the existence of a group of qualified officials. This would definitely be a commendable step, and the possibility of extending a program of this type to basketball, hockey and other sports should definitely be investigated.

Kudos should also be given to Green for the idea of inter-division playoffs which proved conclusively that several members of the "A" Division did not belong there, as three of the four "B" Division leaders won against the "A" competition.

Move up from seventh

By Bill Michels

This weekend, the varsity sail-

ing team placed fifth in the

Schelle Trophy Regatta, which

was a major intersectional meet

held on the Charles River. On

Saturday, the winds were light

and very shifty, while on Sunday

the breeze steadied up to about

15 knots. Once again Coast Guard

sailed a consistent regatta and

won easily. Tech sailed poorly

both days and thus Coast Guard

In "A" division captain Dick

Smith '69, Steve Milligan '70 and

Dave McComb '70 co-skippered,

while in "B" division Bob Ber-

liner '70 skippered with Li Liang

'70 as his crew. MIT fell behind

from the start and when Steve

Milligan '70 fouled out in the

fourth race, Tech was out of the

Heavy winds help Tech

three races on Sunday, Tech man-

aged to do a little better and rose from seventh to fifth. The top

five finishers were Coast Guard, Dartmouth, Harvard, Tufts, and

which seem only to occur when

they are doing well, and have

chances are excellent if they

don't make any careless mistakes.

When the wind increased for the

had no competition.

running.

MIT.

Norwich edges soccermen,

By George Novosielski

The varsity kickers were edged 2-1 by Norwich in a lackluster match play Saturday on Briggs Field. The contest on the whole was not well played, as both teams had trouble generating any sustained offensive threats. The game's three goals were all scored on misplays by the goalies, and were even more unusual in that they were all tallied by defense-

The Techmen got on the scoreboard first, when, just before the end of the first period, John Sole '68 hit a long lead from midfield which just got by the Norwich goalie. Both teams then missed several scoring opportunities in the second period, and the home squad led at the half, 1-0.

The visitors came back to tie the soccermen on a marker late in the third period and tallied the game-winner early in the last quarter on a play almost identical to that on which the Beavers scored earlier in the contest. Joe Kadich '69, MIT's high scorer, was unable to compete because of the flu, and his loss greatly hampered the Tech offense.

The booters were generally outhustled by Norwich throughout the game and often lost possession of the ball unnecessarily.

The latest defeat stretched the kickers' losing streak to eight games in a row and dropped their record to a dismal 2-9. The soc-



Photo by George Flyn Kickers Frank Manning '70 (#2) and George Busby '68 (left) raise their arms in triumph as a kick by John Sole '68 goes past the Norwich goalie. The joy was short-lived, as the team from Vermont came back to win, 2-1.

cermen get a chance to get back last home game of the season. in the winning column tomorrow The jv's last game of the seaat 2 pm on Briggs Field, when son, against Harvard, which was they engage Boston U. in a originally scheduled for last Sat-Greater Boston Soccer League urday, was postponed and will be Match. This will be the Beavers' played today at 2 pm at Harvard.

Ruggers trounce Hartford, grab first win of season

third goal.

In the second half conditioning problems began to show themselves on both teams, resulting in comparatively sloppy play. Each team did manage to put in one goal, with the engineer first half winning the game.

A Tech boat fights for the lead during a Schelle Trophy race Soccer (F)—Stonehill, away, 3 pm

Wednesday, November 6

the Tech sailors coming in fifth out of a field of eleven entries.

The Tech ruggers grabbed their first win of the season Saturday that Tech lost the services of a as they demolished Hartford, 14-3. lock in the first period, playing The pattern of engineer play was one man down for over threeset up from the very start as the fourths of the game. forwards carried the opening kickoff downfield 60 yards for Tech's first goal. Within five minutes the forwards struck again, slipping in the best game yet. the loose for another score.

Hartford then tried their luck at offense, but the Beaver forwards Cyclers fie for second; again put on the steam. The Hartagain put on the steam. The Hart-ford club was unable to move the WO IIISI IN 100 IEI ball at all as Tech continued to play excellent ball in the key positions. Towards the end of the first half, the forwards' inspiration spread to the backfield players, who justified their existence bicycles race at Yale a week ago. by picking up a series of three Thirteen cyclers lapped the 1.4 dropped passes setting up Tech's mile course 18 times during the

Tuesday, November 5

Soccer (V)-BU home, 2 pm

Squidgers second in edged by Cornell in finals Waterloo University in Water- game went into overtime. As over either, and Tech won the game

held last Saturday and Sunday. Coast Guard won the meet with

photo by Terry Bone

they could do nothing right. Tech third, only 1-2/3 points behind memory. has also been plagued by fouls, Cornell.

Sailors place fifth in Schelle

Lose to Corneli

this fall MIT had the lowest pos- match arrived with Tech one sible score and won by an over-point down and a 6-1 victory whelming margin. Thus their needed to reach the playoffs.

Finals in overtime

Tension mounted as the final succeed, but did not do any harm Mitch Wand (Burton).

This year Tech's young team, loo, Ontario, was the scene for 100 spectators crushed around the 4-3, tying the defending champion which is composed mainly of the North American Tiddlywinks mat, balconies were created by Waterloo 56-56. That was by fifsophomores, has done best in Association Championships Oc- people climbing onto the adjacent teen points the best any team heavy winds. Unfortunately, they tober 28-29. It what was generally tables to get a better view. Tour- had done against Waterloo in two have been inconsistent and have regarded as the most exciting nament officials were quoted as years. However, it wasn't enough had days where they could beat tiddlywinks match in a decade, saying that this was undoubtedly to gain the finals, in which anybody and other days when the Tech potheads placed a close the most exciting situation in Cornell defeated Waterloo 61-51.

Wieseltheier gambles

Tech lost to Cornell in the open- Jeff Wieseltheier '69 tried a Henninge '69, Dave Sheinson '69, a perfect record in the first round loo by 1-2/3 points if they were playoffs. If he missed and landed portation costs. robin and then placed second. In to get a second chance at Cornell. on his own wink instead, he would Further plans for the Tech their only other team racing event The final round of the Waterloo lose the game and the match.

Tech ties Waterloo

fell over the crowd. The gamble, learning the game should contact

Financial problems

The eight Tech squidgers were In the last shot of the game, F. T. Bull '68 (captain), Bob thus cost them several victories, ing rounds, but managed to start desperate gamble. If he, on one Jeff Wieseltheier '69, Mitch Wand Next weekend the varsity sailors a winning streak which carried shot, could free two Tech winks '69, Mark Oshin '71, Bob Rees will close out their fall season them up to the semi-finals in the about two feet from his own, '68, and Bill Stensrud '71. A numby aiming for the Fowle Trophy double elimination tournament. bounce off them, and land ber of the best Tech squidgers which represents the New Eng- When Cornell crushed last place squarely on a Waterloo wink, the were unable to attend due to land Team Racing Championship. Toronto, it became apparent that engineers would take a 6-1 vic- financial difficulties caused by In the qualifying round Tech had the engineers had to beat Water- tory, the match, and land in the Finboard's refusal to pay trans-

> squad include a spring trip to Cornell and a series of intraclub As he lined up the shot, a hush competitions. Anyone interested in a thousand-to-one shot, did not Peter Wulkan '68 (Bexley) or

The ruggers go for their second win Saturday against the Boston Rugby Club in what should be By Paul Baker

Especially notable is the fact

Tech's cycling club tied Southern Connecticut State College for second place in an intercollegiate 25 mile race.

Bill Guazzo of SCSC won the competition with a time of 1:07:12, while Tech's Dennis Noson '68 finished a strong second in 1:09:03. Dale Zellers '71, who finished sixth, and Al Sawyer '69 were the other engineer competitors.

Yale won the overall competition with 24 points, followed by MIT and SCSC, who amassed 18 points apiece. Harvard, however, made a very poor showing, finishing last with a scant seven points.

The Tech team is anticipating a good spring season of five races. With the expected return of last year's freshman standout, the team should be a strong contender in every race.