Students criticize HASS distribution plan

By Katie Schwartz

Several dozen students, who all described them- selves as strongly favoring humanities, voiced doubts and fears about the proposed new humanities distribution requirement at an open forum Friday afternoon.

About 100 students and 20 to 30 faculty attended the forum, which was hastily arranged last week by Dean for Undergraduate Education Margaret L. MacVicar '65 in response to a student petition asking the faculty to delay decision on the proposal. Over a thousand students had signed the petition.

The proposal would require all undergraduates to take distribution subjects in three of five categories: Cultures and Societies, Historical Studies; Literary and Textual Studies; Mind, Thought and Value; and the Arts. Ten distribution subjects would be offered per category each term.

The forum was scheduled to vote on the proposal at its regular meeting Monday.

Virtually all the students who spoke felt the proposed requirement would allow students from the humanities by restricting their freedom to choose subjects and courses they were interested in. Many thought that the new distribution subjects would be large, impersonal, survey courses that would breed only resentment and apathy.

Chosen vs. core

Much of the friction is focused on the limited number of distribution subjects that would be offered per category each term as part of the proposal. This year's list of 156 HUM-D2 courses has already been cut to 108 next year, and the proposed system would allow only 56.

Given so few to choose from, many feared the apathetic would be less likely than ever to engage in a class that excited them. Katherine Wil- liams '90 said, "Students would have to take distribution subjects because they are required."

Others voiced concerns that the system would not allow students to study in the areas of their interest.

"All the work I'm trying to do on the biochemistry of soybeans is a bunch of crap," said Schiuma Marcella '91, a biology major. "I guess it's better than nothing, but I'd really like to do some research on plant biochemistry." Marcella said her current classes force her to "study hard and study hard and study hard." But "it's hard to feel engaged with the material," she said.

Dean of Engineering Jack Kerrebrock addresses a crowded forum on the HASS proposal in room 54-100 Friday. The forum was addressed at Wednesday's faculty meeting in room 10-250 at 3:15pm.

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HASS-D forum draws critics

(Continued from page 1)

A strong distribution requirement is "easier for faculty and students together to understand and take seriously," said Jack L. Kerrebrock, associate dean of engineering and chairman of the Commission on Engineering Undergraduate Education.

"Let us take responsibility for our education"

Students felt the proposed development was a restriction of their education. "I don't feel we have enough control over our education," one student said. "We are thinking individuals. We can think what we want from an education," commented Bill Tso '90. "If you have the thing administered, you would work fine," said Theodore Tso '90.

Jonathan H. Graher '87, student representative on CUP, was the only student to take a clear stand in favor of the proposed change. "I don't necessarily think that more choices means a better education," he said. "The system's gone out of control."

The more structured HASS-D requirement is "easier for faculty and students together to understand and take seriously," said Jack L. Kerrebrock, associate dean of engineering and chairman of the Commission on Engineering Undergraduate Education.

"Confusion and doubt"

The proposed development has "many features that are unacceptable," one student complained. "I want to be very sure that the whole problem is carefully explored," said Anthony P. French, professor of physics. French was active in education reforms in the 1960s, which shaped the current science core.

Some students objected to the proposal's vagueness. It does not specify any way of making sure the subjects would be demanding, said Ken Simon '90.

"You want the faculty to sign a blank check," charged Seth Gordon '90, referring to the vagueness of the five categories.

"There is no way of avoiding the blank check," answered Richard L. Cartwright, head of the Department of Linguistics and Philosophy and chair of the committee which wrote the proposal now before the Faculty.

Matt Winger '87 was concerned that the proposal would shackle foreign languages and literatures. It has not yet been decided whether Level IV language subjects would get HASS-D credit under the new system, Friedlender said.

CUP meeting opened for students' comments

(Continued from page 1)

Nevertheless, students feared that the new HASS-D subjects would erode toward specialization and lower standards, as the HUM-D subjects have. "I see no mechanism that's going to ensure that this new system is going to work," said Jonathan L. Katz '89, chairman of the Student Committee on Educational Policy.

"If you have the thing administered by others, it would work fine," said Theodore Tso '90.

There is "nothing to maintain the integrity", he said. "There will never be any doubt by this whole process," said Theodore Tso '90.

Jonathan H. Graher '87, student representative on CUP, discounted doubts about the proposal's feasibility. "You have to leave some faith in the process," he said. "There will never be any reform unless you trust the faculty."

"I did believe education reform was needed immediately. I feel the way Canada must feel when we say we've got to study acid rain some more," he said.

But the faculty must listen to the one in two thousand students who have signed a petition asking the faculty to vote on the proposed change, said Undergraduate Association President Maxwell Rodriguez '89. Friday's open forum was the first time so many students had spoken out on education reform, he pointed out.

Too cautious that the proposed change tomorrow would be "hiring the ground and running the wrong way." The humanities distribution proposal is the first potential change in the MIT curriculum to come out of the two-year educational reform movement. The CUP will introduce the second change - a minors in the humanities, arts and social sciences for students in science and engineering - at the faculty meeting tomorrow.

Steve Penn G and Scott Sa- leika '86 believed the proposed requirement was being focused on the humanities department by the engineering faculty.

"The proposal came out of a very long deliberative process," Kerrebrock responded. "I don't think it's fair to characterize it as a result of pressure on humanities by engineering."

"I am filled with confusion and doubt by this whole process," said another student. "Students have brought up a number of very important practical points that I don't think have been answered."

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Teddy file for bankruptcy

Tokyo, Sources say the report, ordered in the wake of the Pennzoil case, is a bid for the $1 billion Pennzoil is said to owe. The company has been ordered to file for bankruptcy, but the creditors have not yet done so. The report is expected to be filed tomorrow night and Thursday.

Weather

A brief respite

After the somewhat unexpected winter weather of yesterday, today's abundant sunshine should be quite welcome. It should be enjoyed today, however, because tomorrow, another storm will be approaching us from the Ohio Valley. The day itself should be dry, but look for rain to move in tomorrow night and Thursday.

Today: Sunny and breezy, highs in the low 50's near the shore, 60° inland.

Tonight: Clear and cool, lows near 46°.

Tomorrow: Some sun early, then becoming cloudy, showers early, then near 45° inland, but mid-50's near the shore.

Thursday: Rain (not snow), highs 50-55°.

Forecast by Chris Davis

Compiled by Julia Young Kim
Editorial

HASS proposal puts unnecessary cap on HUM-D's

Faculty members will convene in 10-250 tomorrow afternoon to consider a proposal to change the undergraduate Humanities, Arts, and Social Sciences (HASS) distribution requirement.

The proposal would reduce the number of distribution categories from 22 to five — and would gradually shrink the pool of HUM-D courses from 108 in the Fall of 1987 to 50 within a few years.

The plan recognizes and remedies some flaws in the current HUM-D system. For example, the consolidation of the 22 categories into five broad categories ensures greater breadth in a student’s selection of HUM-D courses. The plan would encourage students to take a varied set of distribution subjects and not three courses confined to a narrow area within Humanities, Arts, and Social Sciences. Students and faculty may haggle over the exact classifications, but, in principle, this aspect of the plan will bring about a positive change in the requirement.

The proposal also tries to ensure the distinction between distribution and elective courses. Distribution courses should be aimed at providing students with broad exposure to an academic discipline. In the mid-to-late 1970s, the number of HUM-D’s proliferated as professors realized they could increase enrollment by obtaining HUM-D status for their courses.

“The more subjects you succeeded in designating as HUM-D, the greater your likely share of the 1000-plus students mandatorily enrolled in HUM-D’s for any given semester,” reported the Committee on the History of HASS in May 1985. As a result, some courses that have a specialized intellectual focus continue to hold HUM-D status. Some HUM-D courses should and will be reorganized as electives.

The proposal’s solution to this problem is to arbitrarily reduce the number of distribution courses to 50 courses within a few years. These 50 HUM-D courses represent an artificial and unnecessary cap on the number of HUM-D’s offered.

Each course should be judged for its own scope and content, and should not be subject to an overall limit on HUM-D courses. MIT should offer as many HUM-D courses as there are courses that meet the definition of a distribution course. Offering only 50 courses per category excessively restricts students’ choice of courses.

One possible reason for reducing the number of HUM-D’s is to provide a common humanities experience for undergraduates. The August 1986 Report of the Committee on the HASS curriculum notes that there are so many HUM-D subjects to choose from, the likelihood that a substantial number of students from any living group will be enrolled in the same subject is slim.

As a result, conversations outside class rarely focus on HASS subject matter.

The proposal cannot provide any common experience because students will still be dispersed among a wide range of courses each semester. Without a true core curriculum, which would further restrict student choice, it is impossible to ensure such a common humanities experience.

The proposal is not satisfactory in its current form. We urge the faculty to amend the proposal by removing the clause that stipulates a reduction to 50 distribution subjects.

Student reaction to the proposal has been strong. Faculty who worked for a long time on the proposal may feel frustrated by the number of students opposed to the proposal.

What the faculty must remember is that students tend to avoid discussing reforms until a concrete proposal is "on the table." Many ideas for changing the curriculum, such as the Marx Committee proposal to create a New Liberal Arts College, and the Committee on HASS’s original proposal were never formally proposed as changes to the curriculum and were largely ignored by the student body.

The HASS proposal is one vote from reality — and has not been ignored.

Column/Thomas T. Huang

Behold, the witching hour

In order to survive at MIT, students must "master the hidden curriculum," says Ben Snyder, a professor of psychology who works for the Committee on the History of HASS. You can see in his wariness every time he's been here a long time. It's the guy who studied a group of MIT students in the 1950s and traced their careers into the 1980s.

He implies that the successful student only learns to jiggle his or her consciousness, to urinate out when to skip class, when to point in a problem set, when to pull an all-nighter, when to show off. The student learns to prioritize these commitments and takes off from there.

From past experience, Snyder warns us that any educational reform that ignores this hidden curriculum has a life expectancy of two to three years.

It's been two years since President John M. Deutch '61 announced the new educational initiative. Perhaps the witching hour has arrived. You can hear the wolves howling. Everyone's trying to bluff and puff each other's ideological hair away.

Professor Leo Marx's proposal to create a College of the New Liberal Arts is long since fallen by the wayside. The Humanism, Arts and Social Sciences proposal is on the verge of getting bogged down. This is due to a Sept. 23 surprise petition master-minded by a group of humanities majors who contended that the HUM-D changes, in forcing breadth upon the student, would sacrifice individual choice and exploration.

Meanwhile, a lot of students and faculty on this campus still don't understand what the hell's going on. You can count me in on this party. But Snyder's words have not penetrated. Instead, the reformers exposed the benefits of lower HUM-D's, and core classes that provide for a common experience, but their changes don't address the traditional survival instincts of MIT students, instincts that may be misguided, but that are nonetheless prevalent.

The very success of this educational reform hinges on getting MIT students to involve themselves in their humanities with the same intensity as their technical classes. The very goal of this educational reform is to get science and engineering students to ask value questions, thinking in humanities, as well as technical, terms.

Yet, a good number of MIT students selectively neglect their humanities and social sciences because they perceive that their careers won't depend on these classes. They've got to spend more time on their technical classes. Call it careerism. Call it survival. Call it a wise allocation of time. Call it what you will.

Just put, science and engineering graduate schools and companies just don't seem to give a damn about a student's performance in the humanities.

And why should they? This high-tech society lives in an hourly hungry for guys and girls enabled with technical prowess, guys and gals who will program and design and build first and ask questions later.

Much later.

President Paul E. Gray '54 has been fighting this sentiment. Last December, in The Chronicle of Higher Education, he wrote: "The growing impact of science and technology on public affairs and human well-being will require that the people who shape or influence these fields appreciate the diversity and complexity of societies and human values and have the ability to understand and respect the economic, political, social, and environmental issues, associated with technical developments and applications of science."

We've got to develop a true "educational partnership among the technological, artistic, social, and humanistic disciplines."

But eloquence isn't enough. President Gray and Provost Deutch, as the ones with any political clout, you've got to speak out, turn this society of atom bombs and space defenses on its head and preach the importance of humanities and social sciences in a technical education.

Otherwise, the wise Ben Snyder, with his disheveled silver hair and confused smile, will be forced to play the part of a beleaguered journal professor who's going down the tubes with America education like a seaman captain who's going down with his ship.

Thomas T. Huang, a student in the department of electrical engineering and computer science, is a former editor in chief of The Tech.
Students encourage faculty to attend HASS-D meeting

(Editors' note: The Tech received a copy of this letter addressed to the MIT Student Senate, but did not receive a copy of the letter addressed to the chair of the Undergraduate Association, which the author claims was not delivered.)

We write you regarding the forthcoming HASS-D distribution meeting, which is scheduled to be voted on at that meeting.

There have been a number of concerns expressed among the HASS-D students regarding this proposal — both about its merit and about the process by which it appears to be being implemented. Enclosed you will find a copy of one of the petitions which has been circulating among the student body which gives voice to some of the initial concerns. To date, it has been signed by over 400 students, the final results will be reported at the faculty meeting, along with some of the further concerns which have been removed.

We believe these concerns should be taken seriously. By the time you receive this letter, the question of whether or not to accept a proposal to change the distribution requirement will be voted on at a HASS-D meeting. We, the students of the MIT HASS-D, would like to express our concern over this recent move to change the distribution requirement.

We believe that the current number of courses to be taken in the HASS-D distribution requirement is too low. By only requiring 12 courses to be taken in the HASS-D, the current requirement fails to fulfill the original intent of the distribution requirement. The current requirement only requires that a student take a certain number of courses in each of the five fields — humanities, arts, social sciences, engineering, and science. However, the current requirement does not specify how many courses must be taken in each of these fields, leaving the decision up to the student.

We also believe that the current requirement fails to take into account the individual interests of the student. By only requiring 12 courses to be taken, the current requirement fails to allow students to explore their individual interests and to choose courses that are relevant to their majors.

We believe that the current requirement is too low and that a better requirement should be established. We believe that the current requirement should be increased to at least 24 courses to be taken in the HASS-D. This would allow students to explore their individual interests and to choose courses that are relevant to their majors.

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Change in requirement will eliminate courses

(Continued from page 5)

What will be the solution to overcrowding in the fifty HASS courses? Will there be a lottery reminiscent of past attempts to limit enrollment in 6.002 or will this new requirement simply be taught in the lecture and recitation style of physics and math classes?

Reducing the number of distribution courses, Professor Bill Neebe suggests, "will not only reduce the number of courses by an even more uniformity and boredom problem. It will eliminate those courses that plague some HUM-D subjects. Some critics of the present HUM-D status of their subjects that they felt obliged to simplify their subjects so that a larger group of students could understand the material. This type of study abroad is often unmanageable. A student who wants to take level one through level four of a language in your first year abroad would receive a half credit, whereas one who designs to have learned a different culture, discuss history, and social issues in a foreign language, and written many short papers in a literacy format. Clearly we as Americans are already too self-centered and too exclusive in learning about other cultures. If I fail to fully appreciate MIT, an internationally known university whose graduates are participating in foreign and Oriental studies, under the current HASS proposal. But there are other problems in the humanities. A more literate view of "let them learn as they please" should be encouraged to ignore these problems.

Professors who teach these classes decide or dictate more and better class distribution. For example, the Committee on the HASS Requirement — the proposers of the proposed change to the HUM-D system — stated that the current requirements for other cultures and languages had been limited to a few subjects. Professors of Oriental studies, subjects that lose their current distribution status, should have the main campus. The restructuring of the HASS system will likely change to the level of some fields. The new distribution system could be a bad thing if professors could serve as an umbrella for courses in foreign languages. This is hard to believe. The professed independence would probably be expected to teach students courses on current curricula and to the level of some fields. The new distribution system is likely to be more uniform and boring.

Although I assume those who drafted the HASS proposals did not intend to send this message, the reform offers only subtle forms of disarmament to students interested in foreign languages and culture. I urge all undergraduates to consider whether they are among their own experiences and the humanities and social sciences would have been extended beyond one of the current five categories outlined in the new HASS proposals. If you have learned a foreign language during your years at MIT, consider especially how much more difficult fulfilling your distribution requirement would have been without HUM-D status for upper level courses. The time to make your voice heard is now, not last fall when the course you planned to take has lost its HUM-D status. Carolyn Ruppel G

Proposal raises broad questions

(Continued from page 5)

HUM-D offered last fall in Linguistics, Philosophy, Traditions and Texts, History, Visual Arts, and the History of Art and Architecture had more than 250 students in them. In implementing the proposed HUM-D changes, how will MIT fulfill the dual goals of the current students and those of sections, while at the same time satisfying student preferences for particular HUM-D concentration. The restructuring of the HASS requirement will likely change to the level of some fields. The new distribution system could be a bad thing if professors could serve as an umbrella for courses in foreign languages. This is hard to believe. The professed independence would probably be expected to teach students courses on current curricula and to the level of some fields. The new distribution system is likely to be more uniform and boring.

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Faculty should consider alternatives to HASS-D plan

(Continued from page 5)

Professor Neebe has pointed out that the current curricula of the five distribution fields, this means that on average — if students randomly distribute themselves among the five fields — that 40 percent of the student body would have taken a course from each distribution field. That means that 40 percent of the students do not distribute themselves randomly (as in the current situation) and they take subjects in fields they find most interesting, it is possible that more than 40 percent of the student body will select a particular distribution field.

We have little data on this, since no large scale survey has been done on this matter. We do know, however, that some students have been unsatisfied with the structure of the overall HASS requirement. The MIT Student Pugwash 1984 survey of undergraduates found that although the majority of students were happy with the number of required HASS subjects (e.g., eight), two thirds said they would take a different combination of subjects if they were not for the structure of the requirements. The survey, however, did not ask students to specify what they would like to take instead.

Many of these questions can not be answered definitively by tomorrow, ever. But it is important that all members of the MIT community — students, faculty, and staff — keep these and other pertinent questions in mind when deciding on a proposal to incorporate into the future health of the Institute depends on the careful thought of all members of the MIT community.

Robin M. Wagner SM '86

Opinion
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New psychology program designed

(Continued from page 1)

oriented classes being offered in departments besides brain and cognitive sciences. The program will pool all these classes into one grouping.

"With this organization, if the student wants to take a course in social, environmental, or managerial psychology, he’s not going to have to hunt through all the departments. He’ll just have to go to one source."

"The classes in Course IX that were allowed to fulfill the requirement were always distinct from the more scientifically oriented classes in the department," said Dean of Humanities, Arts, and Social Sciences Ann F. Friedlaender PhD '64. Through the program, more socially-oriented psychology courses will be merged together.

The first changes of the new program will be felt in the fall.

"Even with 9.00 (Introduction to Psychology) I’m going to start including topics that will encompass the interests of this program and that haven’t been covered in the past," Wolfe said.

Success of the program will depend on feedback from the students. An example that Wolfe pointed out was that many psychology oriented classes in Course XY are currently graduate courses. He foresees that if enrollment suddenly goes up, these classes may be changed to undergraduate courses or adjusted in some other way.

The second purpose to the program, as Wolfe explained, will be to bring together faculty that have interests in psychology but that are scattered over a wide range of departments.

"We knew that these people existed, but we (Course IX faculty) didn’t know how or where to find them," Wolfe said. Currently 24 faculty members have expressed interest in the program. Seminars and colloquia will be held to increase communication between members, Wolfe said.

Tom Coppola/The Tech

And the winner is . . . Unified Engineering (16.003/16.004). Professor Emmett A. Witmer ’51 won this year’s Big Screw contest sponsored by Alpha Phi Omega. Seen here, Witmer is engaged in one of his favorite activities: copying papers for Unified Engineer-
ing. Altogether, the Big Screw contest raised over $800 and will be donated to Witmer’s favorite charity.

Winners of the APO Big Screw

1967 Emmett A. Witmer ’51, professor of semiotics and communication
1968 Arthur P. Mattuck, professor of mathematics
1969 Shirley M. McPhail, dean for students affairs
1974 James L. Kirkby, Jr. ’87, professor of electrical engineering
1983 Ronald L. Bowman ’68, professor of electrical engineering
1982 Fran Blake, department of chemistry secretary
1981 Ted Kohler ’74, lecturer of mathematics
1980 Timothy L. Gove, professor of earth, atmospheric, and planetary sciences
1979 P. R. McManus, professor of chemistry
1978 Louise Keshane, New House manager
1977 John S. Dickey Jr., professor of earth, atmospheric, and planetary sciences
1976 Judith Bonnick, professor of physics
1975 Thomas M. Hirt, professor of management
1974 Arthur L. Davis ’70, Office of Housing and Food Services
1973 Paul F. Barrett, Physical Plant superintendent
1972 No Award
1971 Kenneth Browning ’86, Office of Housing and Food Services
1970 No Award
1969 Kenneth R. Walpole ’83, dean for student affairs
1968 Arthur P. Mattuck, professor of mathematics
1967 Arthur P. Mattuck, professor of mathematics

*President Ronald Reagan received the most votes, but was not an official candidate.

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Boston Concert Opera’s “Tosca” is devilishly wonderful

TOSCA
Opera by Puccini.
Performed by Boston Concert Opera. David Stockton, Conductor. Thaddaeus Mozika, Stage Director. Symphony Hall, April 11.

ATHALIA
Overture by Handel.
Performed by Handel & Haydn Society. Christopher Haywood, Conductor. Symphony Hall, April 10 & 12.

By JONATHAN RICHMOND
T O THOSE IN SEARCH of a definition of the Devil, Puccini has the answer: he is Scarpia, the nastiest character in all of opera, the very essence of pure evil. Scarpia has no problems with torturing and killing to get his way. Tosca resists his lust and gives him the embrace of death, but his indomitable power lives on as Tosca’s lover Cavaradossi dies before a firing squad and Tosca plunges to her death.

English National Opera’s Malcolm Rivers’ Tosca. Her Vist d’arte was sung with an innocent reflectiveness diametrically opposed to Scarpia’s sadistic self-assurance. She was powerful, also, in some of her exchanges with Scarpia, an electricity developing between them suggesting a tighter bond than between Tosca and Cavaradossi.

Colleen Freeman’s Cavaradossi was weak. His singing was bled and uncentered. Furthermore, the quality of Falstaff’s performance of Tosca. Her Vist d’arte was sung with an innocent reflectiveness diametrically opposed to Scarpia’s sadistic self-assurance. She was powerful, also, in some of her exchanges with Scarpia, an electricity developing between them suggesting a tighter bond than between Tosca and Cavaradossi.

By JULIAN WEST

I cannot think of another opera with as many major roles. The Boston and New England Conservatories found an entire cast of strong singers not once, but twice, each cast singing two performances; we saw the Friday night cast. The chorus of Fairies was provided by the Treble Chorus of New England, a children’s chorus. I stand by my claim that all sang well, but perhaps the most notable voice belonged to Oberon (Mark Lee). His voice was very strong on the high end, and rose to otherworldly heights in some of his arias (“I know a bank...”).

Don J. Brasso was an entertaining Bot- tom who managed musical excess without letting things get out of hand. His falsetto (“The raging rocks...”) was particularly well controlled.

Lysander (Stephen Gould) and Hermia (Lesley Wright) likewise had some lovely duets together, beginning with “How now my love...” in which they made the most of their exchange of vows (“I swear”). Not as well cast as Rebecca O’Brien as

Ruth Falcon, soprano, performs the title role in Puccini’s “Tosca.”
**Shake, shake, shake with LA garage music at its best**

**BY THE LIGHT OF THE MOON**

Los Lobos

On Slash Records.

By MICHAEL J. GARRISON

I liked the songs I heard off the earlier album by Los Lobos, especially the title track, "How Will The Wolf Survive?" (Los Lobos means The Wolves, by the way) but I never bought the album, and now I regret it. These five guys from East LA are really good, especially David Hidalgo, the lead singer who co-writes many of the songs with Louie Perez.

"By The Light Of The Moon" doesn't have a single bad song on it. As far as I can tell, if handled properly it could be the next "Stairway" or "Thriller." Five-plus his album. Then again, some of my previous predictions have not fared so well.

"Shakin' Shakar" Shakar has to be one of the best party singles of this or any year. This is garage music at its best: arrangements, intriguing lyrics, and fantastical, harmonious, shaking music. Just three, simple statements with no chorus, each one describing something that shakes. By comparing trees in the wind, a "drink as long as it is mean," and a woman "as sweet as she is rough," the song somehow manages to tell the listener which shakes the most — and it's not the trees or the ground.

"One Time, One Night" opens the album with "a wise man telling stories" in a quiet, haunting setting.

Another highlight down in America... One time, one night is done...

In the same light, "Is This All There Is?" explores "tired souls with empty hands" who are "searching for the promises" that most of the other tracks on the album, as I took notes I wrote, "Also a cool song."

Guitar-based pop-rock from the Chameleons UK

**STRANGE TIMES**

By DONALD YEE

"S*TRANGE TIMES," THE THIRD ALBUM AND THE SECOND American release by The Chameleons UK, is finally out on Geffen Records. It comes two years after their first domestic release, "Script of the Bridge." Judging by the quality of the music on the disc, it was worth the wait, with one exception, it seems to me, that the American audience missed out on "What Does Anything Mean?" Basically, the Chameleons' second album, which was released only in Britain. Specially marked packages contain a six-song bonus album in addition to the eleven-song main album, for a total of over an hour's worth of music. Such a treat is certainly welcome, especially when some of the "fluffer" material on this album is better than much of the material that new managers to get radio play.

The Chameleons (the UK is added to distinguish from a US band by the same name) hail from Middleton, a town near Manchester. Their music is guitar-based and brooding keyboards. The guitar line, the Chameleons layer a mix of guitar arrangements, since much of the vocals are being exceptionally well-executed and catchy "Swamp Thing," which opens the second side of the album, starts with a "music is likewise untraditional, featuring a more jazzy up rhythm than is normal for LA bands. But his songs do not lose any of the emotional and sexual charge characteristic of good blues. They are all about sex — or at least women — and most of them are about relationships on the rocks. Besides the current hit single, "Smokin' Gun," there are at least three or four potential hits on the album, and a bunch more which won't be hits simply because they are not as palatable to the pop audience.

Cray has a great voice, and an even better sense of how much pain to mix within his music without turning off the listener. His hit guitar work brings a welcome infusion of the strengths available to other musical genres.

My two favorites from the album are "Right Next Door" and "Feel Like Playin' In the first, Cray reveals himself to be the "Strong Persuader" of the title. He has persuaded the woman next door to have an affair with him, "another notch on my guitar." But her man finds out, and Cray sadly sings that he can hear their hearts breaking right through the thin walls. "She's the man who really loves her. I should go over but what would I say?" "Feel Like Playin'" is the other side of the coin. In a Cray's wife has started staying late at the office, and he suspects she's up to "Feel Like Playin'" with her new, young boss. The contrasts between the two songs show graphically how fragile happiness can be so much as one speaks it.

(please turn to page 17)
**Theatre**

**THEATER**

**Classical Music**

The Boston University Opera Ensemble presents the first performance of John's new opera, "The Tempest." Tel: 495-4700.

**Exhibits**

* "The Great God: Monuments to the Sun," continues through Saturday, April 23 at the Institute of Contemporary Art, 265 Congress Street, Boston. Tel: 495-4444.

* "Eclipses," an exhibition celebrating the history of the sun and its effects on Earth, continues through Saturday, April 23 at the Museum of Science, Boston. Tel: 566-5151.

* "The Museum of the National Center of Architecture," continues through Saturday, April 23 at the Museum of Fine Arts, Boston. Tel: 426-6500.

* "The Wright and Other Architects," continues through Saturday, April 23 at the Museum of Fine Arts, Boston. Tel: 426-6500.

**Jazz Music**

* The Boston University Jazz Ensemble presents "The Music of the Three Ages," at the Memorial Auditorium, 855 Commonwealth Avenue, Boston. Tel: 495-4700.

**Lectures**

* "The Science of the Future," at the Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge. Tel: 253-4444.

**Popular Music**

* "The Songs of the Elephant," at the Boston Conservatory Theater, 31 Hemenway Street, Boston. Tel: 267-5600.
On The Town

ARTS

TUESDAY, APRIL 14, 1987

PULLS IN FREE

T. Wentworth, South Indian elephant

JAZZ MUSIC

206 p.m. at the MIT Center, Cambridge.

CLASSICAL MUSIC

206 p.m. in Jordan Hall, Boston University, Boston.

FILM & VIDEO

5:30 p.m. in the MIT Stage, Cambridge.

EXHIBITS

3:00 p.m. in the MIT Stage, Cambridge.

FRIDAY, APRIL 24

PULLS IN FREE

R. Bork, The Movie and The Great Art Festival, on "Movie and The Great Art Festival," at the Community Center, Boston.

PULLS IN FREE

M. Leslie, "The Movie and The Great Art Festival," at the Community Center, Boston.

PULLS IN FREE

F. Levinson, "The Movie and The Great Art Festival," at the Community Center, Boston.

FILM & VIDEO

5;30 p.m. in the MIT Stage, Cambridge.

EXHIBITS

3:00 p.m. in the MIT Stage, Cambridge.

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FILM & VIDEO

5:30 p.m. in the MIT Stage, Cambridge.

EXHIBITS

3:00 p.m. in the MIT Stage, Cambridge.

FRIDAY, APRIL 24
A mediocre report card for "Athalia" and Hogwood

(Continued from page 10)

con's performance was not consistent; she was far from her best when matched with Friedman — the two supposed lovers sang well with all the air of wooden puppets. There is little positive to say about the other soloists.

Boston Concert Opera gave concert performances, as its name suggests, and the soloists appeared in recital dress, positioned in front of the orchestra. It is difficult to convincingly develop relationships between two-dimensional protagonists in such a well-known and dramatic work as "Tosca," and questionable, therefore, whether it was an appropriate choice for the efforts of this company.

There was an attempt at acting; however, under Stage Director Thaddeus Monyka, Malcolm Rivers succeeded in adding depth through this attempted theater; his icy pacing sent shivers down the spine. But the other soloists' dramatic attempts mostly came across as eccentric and awkward. If anything, they detracted from the production.

The chorus was in good form and the orchestra played well at times, developing a rich and intimidating sensuality. David Stockton did not, however, succeed in maintaining tension, and the music drifted without interest for too many measures...

In England there is a dreaded eithet-school teachers reserve to get talented but errant pupils in their place. Christopher Hogwood, your report read, "Could do better."

Hogwood's "Athalia," performed at Symphony Hall last weekend, was limp. The orchestra played well, even insightful at times, but with elegance rather than brilliance. There were several instances of delightful solo work — a recorder solo performed by Christopher Kreuger and Stephen Homan was one of them — and there was strength to the chorus. But solo singing was mostly of a low caliber and devoid of characterization or emotion.

Towards the end Judith Nelson blew some life into the part of Jehosheba but her singing, though often pretty, was actually insubstantial. Janice Fetz had her moments in the role of Athalia: she was "To darkness eternal" strongly projected, but it was too late by this point to establish the character's powerful central role.

Derek Lee Rapito, singing Sada, also briefly shone, but generally failed to impress. His "Let harmony breathe soft around," was done with care and contemplation, helped along by the sublime theorbo accompaniment of Paul O'Dette. This apart, though, his presence tended to fade into the background. Bartrons Gregory Rainforth, singing Abner, did better: he was the only soloist to consistently inject life into his work, but his voice was not always as clear and crisp as might have been desired.

Not only was this cast of singers unable to project drama, they were unable to fill Symphony Hall, an unfortunate choice of venue for voices which might sometimes be capable of delicate ornamentation but which were lacking in voice. Hogwood should seriously consider using a more intimate setting for his chamber-sized performances of baroque oratorio.

Janice Fetz, mezzo-soprano, performs the title role in "Athalia."

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OFFICIAL MASS. INSPECTION STATION 2563

JAMES W. GRAY, INSPECTOR
On the symmetry of Nazi fascism and British imperialism

DOUBLE CROSS

By JULIAN WEST

The second wave was both created the German Reich and crushed the Irish Empire. Was there, in fact, much difference between the two imperial powers? Does it matter that instead of a German world, "the future belongs to Englishness?" This question is posed by an Irishman, Thomas Kilroy, in the first play of the Boston Shakespeare Company's festival of theatre from Northern Ireland.

Derek Campbell, who directed the play while on loan from the MIT Shakespeare Ensemble, calls it "an almost exhilarating and dashing conclusion to draw. German fascism and British imperialism actually owe their roots and origins to the same impulse." The German attempts to create a genetically superior master race was akin to the British perpetuation of the class system.

Kilroy examines this symmetry through the device of two historical characters: Brendan Bracken, the Minister of Information in the British war government, and William Joyce, the notorious Nazi propagandist known as "Lord Haw-Haw." Both men fled from Ireland at the formation of the Irish Republic, and concealed their Irish roots to gain advancement on the mainland.

"Double Cross" would have us believe that the parallel runs deeper. The play, structurally a pair of one-person plays in which the same actor portray's first Bracken then Joyce, presents each of the characters as obsessed with the other. Bracken sees Joyce as the纔arch-traitor who undermined the British operation in the Irish Nationalist movement in the British war government, and concealed their Irish roots to gain advancement on the mainland.

The score becomes delightfully silly at this point. Puck (Matthew Murphy), who oddly enough does not sing, executed some good gymnastics, and nearly injured himself leaping off stage, but was a bit of a hyperkinetic monkey on occasion. The faeries had some nice business when given specific tasks, particularly Moth (Eleonore Quirk), who stood in for one of the fairies who got lost at a Halloween party. Fortunately, the necessary spectacle of the opera was not lost. In this case it was present in the acting, which was of a uniformly high standard. The lovers were natural, and many sound effects (of things as hunting horns and chinks in walls) are written into the score. As conjured up by these young musicians under John Morley's rule, it was a delight to hear.

It was imperative, therefore, that the staging complement the music, but just as important that it not draw our attention away from it. Actually, there was no worry there. Though they clearly made some effort to build the cautional "Dream" set, once thought should have gone into the design. Standard fairyland growths preponderantly looked as remnants of a Star Trek set. To this was occasionally added dressing of a shabby backdrop which annoyingly reflected the lights above stage; it was too great an effort to move them for too little effect. As for costuming, the Athenian garments were good, if on the traditional side. Oberon's costumes, and particularly his makeup, were spot on, but Tytania's would have looked better on Cyndi Lauper. An effort to dress up Moth, Peaseblossom, etc. as their namesakes was lame. They looked like costumed adventurers who got lost at a Halloween party. Fortunately, the necessary spectacle of the opera was not lost. In this case it was present in the acting, which was of a uniformly high standard. The lovers were natural, and the mechanicals hilarious, particularly in the final scene, for which they found a few new twists. One should imagine "Pyramus and Thisbe" not merely being acted bawdily, but sung badly as well.

Boston and New England Conservatories stage Shakesperean opera

(Continued from page 10)

Helena, and William Mount as a very dashing Demetrius. All four came together in Act III for a splendid quartet ('like a dashing Demetrius. All four came together in Act III for a splendid quartet ('like a
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Guarneri String Quartet
Continuing to blend the talents of its four founding members — Arnold Steinhardt, violin; John Dalley, violin; Michael Tree, viola; and David Soyer, cello — the critically acclaimed Guarneri String Quartet will be in concert on Friday, April 24 at 8 pm in Jordan Hall of the New England Conservatory. The program will include works by Mozart, Janacek, and Debussy. "MIT price: $3.50"

Steve Reich and Musicians
Recognized internationally as one of the world's foremost living contemporary composers, innovative performer Steve Reich and his ensemble of musicians will offer a program of works by Mr. Reich including "Six Marimbas," "New York Counterpoint," and " Sextet" on Friday, April 24 at 8 pm in the Berklee Performance Center. "MIT price: $5.00"

Porgy and Bess
The Boston Opera Association presents George and Ira Gershwin's American Opera Classic "Porgy and Bess," April 30 to May 3 at the Wang Center for the Performing Arts. From the primitive, tightly knit society of "Catfish Row" to the tantalizing presence of the city with its lure of sin, "Porgy and Bess" in its broadest sense affirms man's capacity to pursue his dreams. "MIT price: $8.20"

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FIGHT CANCER

THE WORLD'S MOST EXPENSIVE AND UNCOMFORTABLE FLIGHT TO LONDON.
Cray mixes pain and hot guitar in songs of relationships on the rocks

(Continued from page 11)

Besides these, I also enjoyed "I Wonder," a song about the problems faced by "Young Bob," and "Heaven's A Woman," which qualifies for my favorite line of the year:

You can give me an hour, 
Alone in a bank; 
Pay all my tickets, 
Wipe the slate blank. 
You can buy me a car, 
Fill up the tank; 
Tell me a moon full of lawyers just sank.

But it ain't nothing but a woman 
Can get me through the night. 
They're all great songs and I wish I could also recommend his earlier work, but I admit I only own one of his four ear-

ier albums, and I bought it after this one. It, too, is a good record and plays a little more like straight, old-fashioned blues.

The Joyce character is both more historically accurate and more easy to ac-

cept. A drinker with personal and marital problems, and evidently a confirmed fas-

dict, he presents an equal challenge, which McElvain meets squarely.

In the supporting roles, Jonathan Ep-

stine was very good with the male parts. Particularly good were his Lord Beaver-

brook, the publisher; and Erich, a German admirer of all things English, including Joyce's wife. He even manages a decent Churchill impersonation as one point. Carol Moss was less strong in the female roles, though she had her moments as Joyce's wife in the second act.

All distinguished sufficiently between their characters to allow us to accept them in multiple roles. On the other hand, the play relies on the obvious artificiality lent to the characters by multiple casting: we see the actors as actors. This reflects the duplicious nature of the characters them-

selves. Joyce "was American, but also Irish. He wanted to be English, but had to settle for German." As Campbell puts it, the doubling up presents "an opportune way of exploring levels and complex images."

Campbell's staging furthers the soccer-

ity of the play. At the end of the first act, for instance, McElvain shifts character on stage, and the other characters change his makeup in front of us, presenting a pre-

view of the Lord Haw Haw of Act II.

Another interesting device was a "view-

screen" which enabled each of the main characters to speak, via film, in each

other's place. The script calls for a large video screen, but the constructions of the small studio space forced a smaller screen, which doubles as a mirror in a clever visua-

l pun. One character is the other reflected in a twisted mirror; the traitor becomes the trickier.

So too, Campbell observes, is British imperialism simply German fascism seen "through a slightly distorted mirror." The image of the mirror as an Orwellian view-

screen fits right in with the totalitarian im-

age of the wartime societies.

It is all, therefore, a double cross. Each

person occupies the other of his own Eng-

land; one of working for the Hun, the oth-

er of destroying the Empire. Yet each is equally culpable of having betrayed fre-

land in the first place, to prefer advance-

ment in the Imperial powers.

Double Cross: the Empire betrayed from both sides of the fence

(Continued from page 12)

went over to the Nazi. Joyce believes Bracken would deny Britain its rightful place beside Germany at the center of the world Reich.

Although the two acts are essentially con-

cerned plays — character studies — two other actors do play supporting roles.

particularly well. McElvain, playing the dual role, makes the most of the virtuoso part. As Bracken, he is a lugubrious Tony MR, an early telephone bureaucrat with his finger in place of a nose. As McElvain, a sort of Leslie Timross artificial accent which allows him to pass for a young German, he becomes his fifth room. His mannerisms are as proper-

ly affected as the accent. If he fails at all in this role, it is in avoiding the charac-

ter, as Bracken was probably not so bad as he makes the play makes him out to be.

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historically accurate and more easy to ac-

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TUESDAY, APRIL 14, 1987

The Tech PAGE 17
Genetic engineering requires caution

David Pimentel of Cornell, Sheldon Krimsky of Tufts, and David Glass of Biotechnica International, answer questions about releasing genetically engineered organisms into the environment.

"(Continued from page 1) and monitor genetically engineered organisms. They cannot deal with the rapidly growing biotechnology industry. Since 1975, 580 new biotechnology firms have emerged in the United States and Canada, Krimsky said.

Potential uses

Present biotechnological applications include the production of hormones, antibiotics, and enzymes to treat ppecial dwarfism, insulin for diabetes patients, and diagnostic tests for cancer, Glass said.

Medical uses that "are in the pipeline," according to Glass, include blood clot-dissolving agents for heart attack victims, blood clotting agents to treat hemophilia, and vaccine production for both animals and humans.

Although agricultural applications of genetically engineered organisms may develop sooner than medical uses, they are no less exciting, Glass said. Possible agricultural uses include developing crop plants with enhanced nutritional value and others with increased resistance to pests, diseases, and herbicides, according to Glass.

Another potential agricultural application is developing plants with improved nitrogen-fixing abilities, Glass said. This would reduce reliance on chemical nitrogen fertilizers, which are the main cause of ground water pollution, he explained.

The recently developed ice-minus bacterium, proposed for use in agriculture in California, can increase the frost tolerance of certain crop plants by five degrees, Pimentel noted. Although this bacterium offers obvious benefits to the agricultural industry, it is also a pathogen to about 16 plants. Research indicates that it also affects some insects, he added.

Insects are often considered pests but the majority are, in fact, beneficial, Pimentel said. We could not have agriculture or a quality environment without most insects, he asserted.

Pimentel questioned the ability of biotechnologists to thoroughly research an organism's effect on the environment before releasing it outdoors. The fact that there has been no observable change in the past does not guarantee that effects will not be observed in the local chain after several years.

Researchers who claim that "there's very small chance for problems," should beware, Pimentel said. Rare events do happen. "It's not uponing that we have 100 percent accuracy before we release organisms into the environment... I'm just trying to [illustrate] that rare events do add up when you're making numerous introductions," Pimentel said.

The overuse of pesticides is another potential environmental hazard that may result from new biotechnologies. Pimentel said. If plants are developed that are resistant to herbicides, farmers will "spray the hell out of the plants," and kill all the weeds and surrounding vegetation as well, Pimentel said.

Research questions

Glass, whose firm performs genetic engineering on crop plants, listed a number of questions a researcher should ask to ensure accurate risk assessments:

- Does the organism linger in the environment and does it multiply out of control?
- Can the organism spread from the test site or on its own through other vehicles such as wind or ground water?
- What happens to the genetic material inserted into the organism?
- What is the effect of this organism on the target and non-target populations?
- There is simply no way to predict with 100 percent certainty whether is going to happen in the environment until you actually go into the environment," Glass said. To facilitate this process, Glass argued for clear, consistent guidelines defining the necessary tests and procedures required in order to market the product.

- "I'm not aware," according to Glass, in-
Softball wins two over Regis

By Marcia Smith

The women's softball team swept a doubleheader Saturday against Regis College to raise its record to 2-3, MIT topped Regis 9-4 in the first game and 11-5 in the second.

Tri-Captain Karen Kane '88 allowed Regis only six hits during the first game, contributing to their loss. "[The umpire] had a consistent strike zone, so I was able to get the first strike, then play with the corners to get the better swinging," she explained.

Without many hits, Regis could not bring the runners around and left a total of ten Regis players stranded on base. The first run of the game came in the third inning when Regis had a single, a walk, and then two line drives up the center to bring in three runs. MIT did not come back until the fourth inning when it eked out eight runs. Regis pitcher Carolyn Duda had control problems, walking six batters. MIT also had three singles off the bats of Paula Freggo '90, Terry Lowenstein '89, and Tri-Captain Carol Cassell '89.

MIT scored its ninth run in the next inning when Regis batters fell off, a walk advanced when the catcher misfired, and came home on a sacrifice fly by Vivian Mas '88.

Regis tried to come back in the last inning, but only came up with one run. "We concentrated on our defense, and were able to come up with the plays when we needed them," said MIT Coach Jean Heiney.

In the second game, both teams scored three runs in the first two innings. Regis' pitcher fell off for MIT was Linda D'Angelo '90, who made her starting debut. Although Regis took a lead in the second inning when its second batter was walked, the third batter bunted to third baseman Kim Germain '90, who threw to second to get the forced out. The Regis pitcher then took two strikes in a row before smacking a two-run home run over the right field fence. Regis keep their two run lead for three innings.

The fourth inning was once again a lucky one for the MIT players; they took a lead which they never gave up. Once again Regis had pitching problems; six of the ten batters up that inning were walked. The walks along with a sacrifice bunt by Kane and mistakes by the Regis catcher brought in four runs.

In the fifth inning, MIT switched pitchers, going back to Kane. The runners were hit by the Regis runners who were last batted down by Tri-Captain Julie Brown '90, and then they tried to steal second base. MIT kept another run in the bottom of the inning when Kane was walked, pinch hitter Sheri Cohen '89 then rapped a single into center field which brought in pinch runner Susan Willett '90 (for Kane).

In the sixth inning, Regis came up with two more runs to cut the lead to only one run. The inning ended when Kane struck out the next batter.

MIT ratified by getting six more runs, despite the fact that Regis switched back to its first-game pitcher. Four walks and singles by Brown and Kane contributed to the runs. Also helping out were the passed balls by the Regis catcher, who allowed Brown, Dana DiMenna '88, and Germain to go home.

Regis tried to come back in the last inning, but could only get one run.

"Once again we were able to keep our defense strong," Heiney said. "We know where the play was going before we got the ball, then executed the play perfectly."

(Editor's Note: Marcia Smith '89 is a member of the MIT women's softball team.)

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HACKER HEAVEN

Do you know about this Summer job program designed for freshmen and sophomore undergraduate students interested in research projects in the Laboratory for Computer Science?

Its goal is to identify creative, undergraduate computer science people and encourage their development. Qualified students, with the help of research supervisors, prepare UROP proposals based on current research projects within the laboratory. The full time Summer involvement should continue as a part time UROP project in the Fall.

To get started, attend an informational meeting on Thursday, April 23 at 5:15 pm in Building NE43, Room 512A, or obtain an information packet after that date from NE43-501. For additional information, please contact Pat Anderigg (ext. 5828).
The MIT rugby club finished second of twelve in the 3rd Annual Spring College Tournament in Providence, RI, this weekend. The Engineers advanced to the semi-finals Saturday by trouncing Rhode Island College, 38-0, and beating Tufts, 9-6. Sunday, MIT advanced to the final round by coming from behind to beat Wesleyan, 10-6. But MIT proceeded to lose the final match to Northeastern by one try and one penalty, a margin of 9-0. Throughout the tournament, MIT’s performance was marked by aggressiveness and good forward play. The club will play Northeastern again on May 9.