

RECEIVED

FEB 25 1972

Would you believe- the 'marching faculty'?

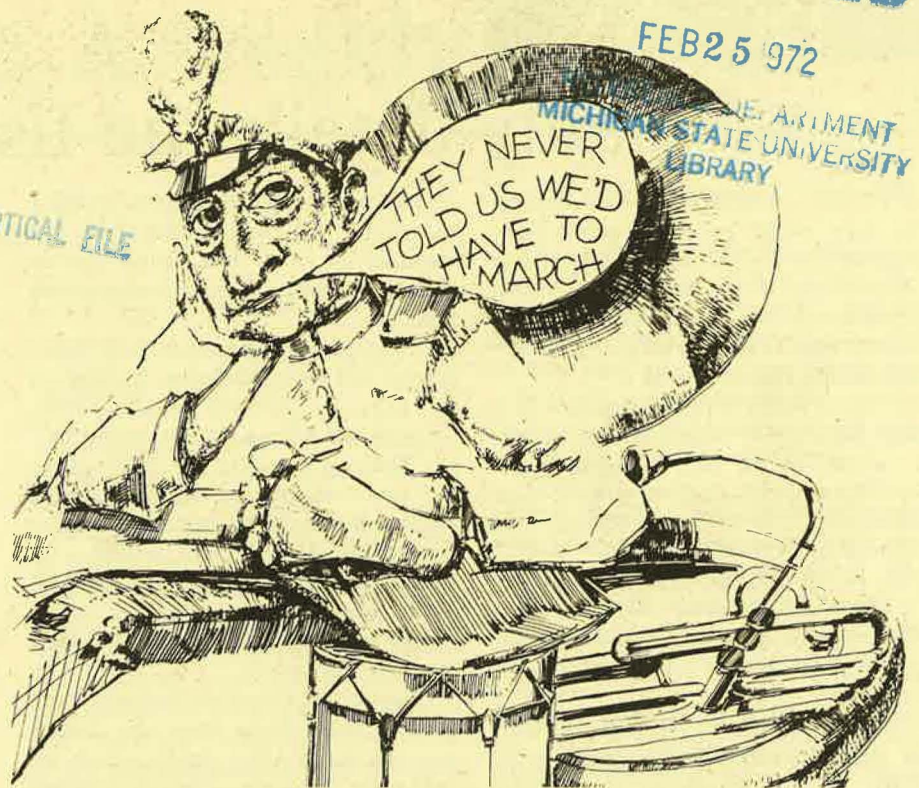
Some faculty members have asked Kenneth G. Bloomquist about the possibility of forming an MSU Faculty Band. . . so the University's director of bands wants to find out many persons would be interested in joining a group.

"I imagine we have a number of faculty who participated in their high school or possibly college bands," Bloomquist said.

He has proposed that — if interest warrants — the faculty band would meet once or twice a month in the music department's band room to perform "music of mutual interest for our own enjoyment."

Bloomquist asks that any persons who do play a band instrument and who would be interested in participating contact him by mail, providing the following information: Name, department, instrument played (and owned — "We could provide percussion and tubas, but little else," said Bloomquist), and the evenings best suited for meeting.

The information can be sent to MSU Faculty Band (in care of Bloomquist), Room 116, Music Building.



MSU News-Bulletin

Vol. 3, No. 19

Michigan State University

Feb. 24, 1972

New leave plan proposed; set to go to trustees Friday

A broad new set of employee leave policies covering personal, professional, and sickness and disability leaves will be recommended to the Board of Trustees this Friday, according to Jack Breslin, executive vice president and secretary to the Board.

For the first time, under the proposed new policy, women employees would be able to use accumulated paid sick leave when they cannot work due to pregnancy.

Breslin said another new feature of the plan would extend sick leave benefits on a proportionate basis to part-time employees who work half-time or more on a continuous basis.

"We believe the new policies, particularly sickness and disability, put MSU out in front of much of industry as well as other educational institutions," he said.

The proposed policies are the result of extensive work by the University's

finance, personnel, staff benefits and Equal Opportunity Programs offices.

The personal and professional leave policies to be presented to the Board provide for leave without pay and are not significantly different than past practices, Breslin said.

Personal leave without pay may be granted to classified and Board-appointed employees for a maximum of six months for such purposes as illness in the family, child care, an extended trip, etc. Part-time employees working at least half-time or more also will be eligible.

Professional leave without pay may be granted at the discretion of the University to Board-appointed employees for periods of up to two years to "engage in professional activities of mutual benefit to the University and the individual," Breslin.

* * *

THE MOST far-reaching changes

occur in the new policy for sickness and disability leave which will now cover pregnancy conditions, and part-time employees working half-time or more.

Previously, women employees were not entitled to use their accumulated paid sick leave when they were unable to work because of pregnancy, although their University health and hospitalization insurance provided maternity benefits.

Under the new proposed policy, sick leave may be used for "illness or incapacity associated with pregnancy when a physician indicates that the employee is unable to perform all the duties of her position."

Full-time classified employees may accrue sick leave credit at the rate of one-half day for each two weeks of service, with a maximum accumulation of 120 work days. A Board-appointed employee has up to six months sick leave credit in any 12-month period.

And inside . . .

. . . Around the campus, page 3

. . . Smashing atoms, page 4

. . . Enrollment quotas, page 5

. . . Waste disposal, page 6

Women's athletics: Undoing an image as 'illegitimate' child of men's sports

MSU is moving quickly to make women's intercollegiate athletics more than just the illegitimate daughter of the men's program, a position it has held for the past 25 years.

The movement to develop a separate athletic program for women has been growing nationally for the past five years, but it has caught on here only in the last two months. The major result of the separation will be an expanded budget for the women.

Up to now, the women have been running their intercollegiate program on \$3,000 a year, while the men's annual budget is slightly over \$2 million. And the women's money comes directly

from the men's athletic fund.

"Hopefully, the budget for women next year will reflect an added emphasis in our program," says Jean Anderson, assistant professor of physical education and women's basketball coach. "We don't want an equal program with the men. We are only asking for a portion."

Anderson estimates that it will take somewhere between \$10,000 and \$15,000 to set up a women's program of good quality. Women's athletic teams here compete in seven varsity sports: Basketball, field hockey, swimming, gymnastics, tennis, and softball. Next year, golf is expected to become a varsity sport. Some 150 women

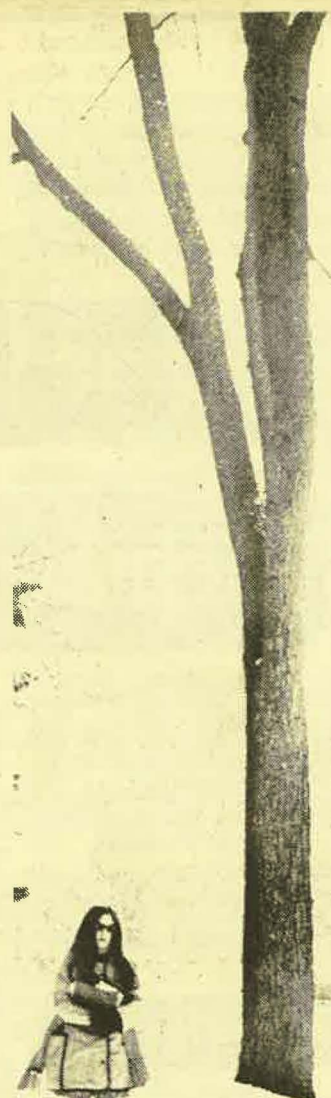
compete in these sports.

* * *

THE MOVEMENT to form a legitimate women's program on the national level is being led by the newly-formed Association for Intercollegiate Athletics for Women (AIAW), similar to the men's NCAA. There are also regional and state branches of the AIAW.

At MSU, the catalyst was a meeting in early January between Jack Breslin, executive vice president, and representatives from the women's athletic program. Since then the women have met with Breslin, Burt Smith,

(Continued on page 2)



—Photo by Dick Wesley

Thinking spring?

Books

Study details the fiscal crisis in Detroit

Detroit's chronic fiscal condition will be even worse by 1980 unless state legislators and Congress give some immediate aid, predicts an MSU professor of economics in a newly-published study, "Detroit: Agenda for Fiscal Survival."

"If you think things are bad now, just wait until 1980," warns Milton Taylor, a member of the staff of the Institute for Community Development and Services. Taylor, an authority on taxation, authored the study jointly with Richard Willits, a graduate student.

The major problem Taylor sees in Detroit is black poverty, which, he says, government officials fail to identify or treat.

"Unless poverty is removed, the City of Detroit probably will continue to slide into a worsening fiscal crisis regardless of what else is done," the authors state.

Taylor says it is difficult to conduct research on Detroit finances and maintain up-to-date figures because the city's deficit "keeps widening all the time."

He calls for immediate help from federal and state resources, because, as he sees it, "Detroit is completely incapable of solving its own problems."

"The city is a victim of federal, state and suburban inertia," he says. "Every city tax base is being exploited. Detroit is already levying the highest city income tax in the state of Michigan (2.0 percent); is the only city with a utility excise tax, and has reached the legal property tax limit."

The major thrust to remove black poverty must come from the federal government, by instituting an "adequate" income support program such as negative income tax, Taylor says.

"But Congress just doesn't want to eliminate poverty," he says. "There is tremendous insensitivity to the poor."

Taylor also recommends that the state government change its shared tax formula.

"The formula should have a factor that could weigh in favor of core cities, such as distributing taxes inversely to per capita income," he advises. The study devotes several pages to alternative tax-sharing proposals in

Michigan cities with populations over 25,000.

Taylor expresses doubt that any of these reforms will be enacted, because "suburban votes control the legislature and Congress. The votes are in the suburbs, not in the core cities."

The book is available from the Institute for Community Development, 27 Kellogg Center for Continuing Education.

—LINDA GORTMAKER

Letters

Story on reference library lost sight of a basic purpose

To the Editor:

Although our ideas about the purposes and functions of libraries are always changing, there is a fundamental *raison d'être* for a university library: To aid learning. In the News - Bulletin article of Feb. 10 on information - dispensing at the MSU Library, that purpose seems to be lost sight of. Is it the task of a librarian to provide ephemeral data for curiosity - seekers? Would not his training and talents be more usefully employed in helping students and faculty to locate sources for information?

With a budget as tight as the university's and the library's at present, and with so many bibliographic and information - retrieval problems still unsolved because of limited personnel,

surely the cost of answering trivial questions is too high for this University to indulge in such doubtful public relations. Questions about campus and entertainment schedules could easily be answered by a clerk at the University switchboard. The telephone - answering librarian can tell casual inquirers where to find information, but it is a waste of his time and training, and of the taxpayer's money, for him to go find the answers himself. And honoring trivial questions with such consideration is poor teaching technique.

The 11 master's degrees behind the reference desk represent years of training and experience in research. Let's use them in a way from which the University can benefit most.

Marymae E. Klein, M.L.S.

Achievements

PERRY LANIER, associate professor of elementary and special education, has been appointed by the Michigan Council of Teachers of Mathematics to the steering committee for writing program objectives for school mathematics.

A scholarship in Chinese studies in honor of an MSU professor emeritus, SHAO CHANG LEE, has been

established at the University of Hawaii. Lee taught at Hawaii before joining the MSU faculty.

MARGARET F. LORIMER, professor of institutional research, is a new member of the Board of Trustees of Missouri Valley College.

A. S. MOWERY, director of the Continuing Education Center in Benton Harbor, is the new vice-chairman of the section on Training - Education and Industry of the Adult Education Association of the U.S.

Physicist GERALD A. SMITH is a member of the executive committee of the Users Group of the National Accelerator Laboratory at Batavia, Ill. The group helps coordinate activities of users at the laboratory.

JOHN WINCHESTER, coordinator of American Indian Programs in the Center for Urban Affairs, is the new second vice president of the National Indian Association.

Women's athletics . . .

(Concluded from page 1)

acting athletic director, and Gale Mikles, head of the physical education department.

"The men have really bent over backwards to provide for us now," Anderson said. "They have been very cooperative."

Smith said he hopes that the new women's athletic budget will be ready by the middle of spring term at the latest and will go into effect next fall.

"We would like to sit down with each coach and arrive at a commensurate budget," Smith said. "We'd like to set it up on a comparative basis with what we have for the men's sports program. All we ask is that they stay within their budget, the same thing we ask of the men."

* * *

BUT WHILE the women want their own program, they do not want it to parallel the men's program.

"The idea is not just to be like the men," Anderson said. "We want to avoid high-powered athletics and the win-at-all-costs attitude. We don't want to become professional amateurs. Besides, recruiting and athletic scholarships are against the national rules for women."

Mikles, the man who administers the women's program, agreed. He said he wants to see women's intercollegiate athletics run as an integral part of the teacher training program, and not become geared to professionalism.

"Women will always be considered as teachers, not coaches," he said. "We don't want to develop Vince Lombardis. We are not training them to go into professional athletics. There is no reason

to set up a program for the two or three percent who might go into pro sports. We have to orient our program toward the 95 percent who will go into teaching."

* * *

THE NEW WOMEN'S budget should eliminate financial problems that have occurred in the past, like that of the volleyball team three weeks ago.

After placing second in the Midwest tournament, the MSU team was invited to the national tournament in Florida, the following week. After two hectic days of trying to get the \$1,500 from University funds, Coach Carol Davis raised the money from outside sources.

In the past, only \$300 has been allotted annually for championship travel. With national tournaments now organized by the AIAW in all eight varsity sports, more money will be needed.

Smith, Mikles and the women's coaches all agree that MSU should schedule instate teams rather than attempt to play a Big Ten schedule. Competition in the state, they say, is good, and the costs of traveling to some of distant Big Ten schools would be prohibitive.

Signs in the changing attitude towards women's athletics are already apparent. The women's basketball team has new uniforms and full-length basketball court with glass backboards was set up last week just in time for the first women's state tournament to be played here on March 3 and 4. And an electric scoreboard has been purchased along with dozen stopwatches for the swimmers.

—MIKE MANLEY

Noted artists have leaders in upcoming Puccini opera

A pair of seasoned professionals who have performed throughout the U.S. and in Europe will sing the leads in Puccini's "Turandot," which will be presented tonight at Fairchild Theater and Saturday at the Okemos High School Fine Arts Auditorium. Each curtain time is 8 p.m.

Soprano Jeannine Crader will have the part of Turandot, Puccini's Princess of Ice, and tenor Jean Deis will sing the role of the prince who wins the hand of Turandot.

Miss Crader attained prominence with her performance in "Don Rodrigo" with the New York State Theatre at Lincoln Center. She has performed with the San Francisco Opera, the Metropolitan Opera Studio and the New York City Opera.

Deis, now both a teacher and performer, spent some time studying

and performing in Milan, Italy, and, since returning to the U.S. has appeared with most of the major opera companies.

The principal lyric soprano part of the servant girl will be sung by Suzette Wankie of the University of Maryland tonight and by Giovanna Colonelli Burk on Saturday evenings. Mrs. Burk is the wife of Dennis Burk, who will conduct the MSU Symphony Orchestra.

To help persons attend Saturday's performance in Okemos, a free bus will run to and from the Fine Arts Auditorium. The departure schedule: From the Shaw Hall lot, 6:45 p.m.; University Village, 6:55 p.m.; Spartan Village laundry, 7:05; Case - Wilson stop, 7:15; Student Union, 7:20 to 7:30.

The buses will return at about 11:15 p.m.

MSU News-Bulletin

Editor: Gene Rietfors
Associate editor: Beverly Twitchell
Associate editor: Patricia Grauer

Editorial offices: Rooms 323 and 324, Linton Hall, Michigan State University, East Lansing 48823. Phone: 355-2285.

Published weekly during the academic year by the Department of Information Services. Second-class postage paid at East Lansing, Mich. 48823.

Around the campus: A weekly review

Bargaining petition filed

A faculty election on collective bargaining before the end of the current academic year — that's the goal of the MSU Faculty Associates, which last week filed a petition asking the Michigan Employment Relations Commission (MERC) to conduct an election on the campus.

An election date will be scheduled when MERC determines, through a yet-to-be-scheduled hearing, that the Faculty Associates has authorization cards from at least 30 percent of the faculty unit it seeks to represent.

William Owen of the Michigan Education Association, parent organization of the Faculty Associates, said that the petition defines the bargaining unit as all teaching faculty — professors through instructors and lecturers — and fractional-time teaching faculty employed for six contact hours or more for two or more successive terms. It also includes such academic staff members as academic advisors, counselors and librarians.

The proposed unit excludes extension service personnel, research assistants and associates; practicing physicians and/or clinical professors; academic staff in human medicine, osteopathic medicine and veterinary medicine; department chairmen; deans; supervisors; and administrative-professional staff.

A final definition of the unit must have consent of all the parties now involved: The Faculty Associates, MERC and the University.

Following the filing, President Wharton said that "at the proper time, we will review the sufficiency of the claimed authorization cards, the proposed bargaining unit and other factors involved in determining an administration response."

Should an election be held, the MSU chapter of the American Association of University Professors is also likely to be on the ballot. AAUP President, Sigmund Nosow, professor of labor and industrial relations, said that his group has authorization cards from about 20 percent of the faculty unit it seeks to represent. (Only 10 percent is needed for other groups wishing to get on the ballot.)

Bargaining elections are scheduled in March at Wayne State and Eastern Michigan Universities.

Choosing new Board members

Chairmen and members of the Democratic and Republican trustees selection committees for the University have been announced by the Alumni Association Executive Board.

Patrick J. Wilson, 37, a Traverse City attorney and a 1957 MSU graduate, is chairman of the Democratic selection committee.

Heading the Republican committee is David D. Diehl, 53, a Dansville farm operator and twice a trustee candidate himself. Diehl graduated from MSU in 1939.

The committees will search out and interview candidates and make recommendations to the Republican and Democratic parties which will select

nominees at their respective state conventions later this year.

The first alumni trustee selection committees were established two years ago prior to the 1970 election. Candidates recommended by both committees were approved at their respective party conventions.

The terms of two trustees — Frank Hartman, D-Flint, and Clair A. White, D-Bay City — expire Dec. 31.

The faculty member of the Democratic committee is Winthrop Rowe, business law and office administration.

The Republican committee includes Winston Oberg, professor of management.

Agenda set for hearing

More than 25 women have thus far requested an opportunity to speak at Friday's open hearing on the status of women, according to Robert Perrin, vice president for university relations.

The hearing, to be held by the Board of Trustees, will be at 2:30 p.m. in the Union Ballroom.

Perrin said that those who have signed up will speak for various women's organizations on campus or themselves as individuals. He said they appear to represent women's concerns in a number of areas, including academic advising, women faculty, minority women and graduate and undergraduate students.

Persons affiliated with MSU who wish to speak at the open board hearing may contact Perrin's office at 474 Administration Bldg., or by telephone, 355-6572.

Commencement speaker set

Vernon E. Jordan, Jr., executive director of the National Urban League, will deliver the winter term commencement address at 3 p.m., March 12, in the Auditorium.

Honorary degrees will be awarded at the ceremonies to Jordan and also to Jorge Luis Borges, Latin America's foremost living author; Francis E. Ferguson, president of Northwestern Mutual Life Insurance Company of Milwaukee and an MSU alumnus; and William W. Keeler, chairman and chief executive officer of Phillips Petroleum Company.

Jordan has long been in the forefront of civil rights activities as executive director of the United Negro College Fund, Georgia field director for the National Association for the Advancement of Colored People, and as an attorney - consultant with the U.S. Office of Economic Opportunity.

Borges is director of the Argentina National Library in Buenos Aires. A poet early in his writing career, Borges graduated to critical writing and essays. During the 1940s he developed a prose form known as the "story - essay" that has earned him international literary recognition.

Ferguson was graduated from MSU in 1947 with a bachelor of science degree in agricultural economics, returned as an extension specialist in 1951, and moved to Milwaukee to join Northwestern Mutual later that year.

Waging war on cancer

Increased federal funds for conducting basic research, training scientists and establishing interdisciplinary centers for the study of cancer were forecast last week by the 1972 Huddleson lecturer.

Robert A. Good, head of pathology at the University of Minnesota, and recently named to a three-man cancer panel to advise President Nixon on implementation of the National Cancer Act, made the prediction following his presentation in the Erickson Hall Kiva. His lecture was in honor of the memory of the distinguished MSU microbiologist I. Forest Huddleson.

Much of Good's formal presentation was devoted to evidence that cancer is often related to deficiencies in the immunological mechanisms within the body. His research led Good to carry out the first successful bone marrow transplant to correct inborn immune errors.

"Conquest of cancer will come from young people and we need to cultivate them for their fresh new approaches," Good said. "Their continuing need is for intellectual stimulation, constructive criticism and support."

Many different solutions for cancer are probably in the making, but the first ones are at least "five to 10 years away," he said. He cited knowledge covering more than 100 viruses known to cause cancer, chemotherapy techniques, and the immunological mechanisms.

Currently \$100 million in federal money is spent on cancer, with plans for additional amounts to be added yearly until an annual \$1 billion is reached. Of vital importance in the cancer fight is a strong base of the best of the scientific and medical communities, along with

support from government and NIH, Good said.

He emphasized the importance of continuing basic research that may not be directly related to cancer. And he stressed the value of interdisciplinary centers and institutes that focus the efforts of many disciplines on the cancer problem, and indicated that such centers will be viewed with favor.

There will be more contract research projects but they will not be out of line with present proportions of grant and contract research, Good added.

He voiced hope that infusion of increased federal funds would not "turn off" existing or new private grants for research.

Good praised development by the U.S. Regional Poultry Laboratories at MSU of the first vaccine to work effectively against a naturally occurring animal cancer, Marek's disease, a malignant disorder of the lymph system similar to Hodgkin's disease in humans. The project and similar studies are conducted by Ben Burmester, H. Graham Purchase and other members of the staff.

—NANCY HOUSTON

AD search progresses

The job of finding a new athletic director is into a new phase: Letters have gone to all nominees, asking them to indicate whether they are interested in the job. Those expressing interest will be asked to complete a detailed application form.

John A. Fuzak, chairman of the search and selection committee, emphasized that nominations for the directorship are still being accepted by the committee. Nominations can be directed to Fuzak.

On other campuses

U-M IS 'HALF-WAY.' The University of Michigan reports it is half-way to its goal to achieve 10 percent black student enrollment by 1973-74. The target figure for this year was 1,700 black students, and U-M has 1,708 blacks enrolled (5.2 percent of the Ann Arbor campus total). The 10 percent goal was set in 1970 by the Board of Regents. U-M reports a total of 2,579 minority students as of fall, 1971. (MSU this fall enrolled 3,024 minority students, including 2,509 blacks.)

* * *

A UNIQUE GUIDE. A list of "University Guidelines for Potentially Controversial Events" has been released at Cornell University. Under the guidelines, a management group would meet with speakers and moderators of "potentially controversial events" to discuss Cornell regulations and the possibility of disruption. A "floor manager" would have authority at such events to decide what action should be taken in cases of disruption.

* * *

ELECTION AT WAYNE. The Michigan Employment Relations Commission (MERC) has ordered an election to determine whether collective bargaining will begin for faculty and academic staff at Wayne State University. Barring any appeals, an election will be held within 30 days after Feb. 14. Voters will be able to select from among three prospective bargaining groups, representing the American Association of University Professors, the Michigan (and National) Education Association, and the American Federation of Teachers. There will also be a spot on the ballot to vote against collective bargaining altogether.

* * *

ENVIRONMENTAL SCHOOL. Indiana University will soon have a School of Public and Environmental Affairs with a "problem-solving, public service and interdisciplinary character." It will regroup existing activities and rely on anticipated federal funding. It is planned to serve the whole state, with divisions on each of the eight IU campuses.

* * *

MONEY FOR NORTHWESTERN. Northwestern University has exceeded its \$180 million fund-raising goal in its "First Plan for the Seventies." Chancellor J. Roscoe Miller announced that Northwestern has raised \$181.5 million in a five-year development program that ended last Dec. 31. Alumni and friends provided more than half (\$91.1 million) of the total.

Piercing atoms with invisible beams

Physicists at the Cyclotron Laboratory have been granted \$775,000 for research on the structures of nuclei — the hearts of atoms.

The National Science Foundation grant for 1972 is a continuation of previous NSF grants which now total \$7 million. The Board of Trustees is expected to accept the grant Friday.

It was nearly a decade ago that trustees met with University officials, including President Hannah, in support of the then newly constructed cyclotron. Today, the cyclotron is regarded as the most advanced experimental machine of its kind in the world.

OPERATING AT a level of 56 MeV (million electron volts) at maximum power, the cyclotron pulses forth positively - charged particles as small as a proton.

Ordinarily, the nuclear physicists fire the positively charged particles, which range from protons to helium nuclei and larger, at some kind of ordinary matter which serves as a target for the tiny particles.

When they hit the target they excite some of the atoms of the target, often by hitting or grazing them. An excited target may do several different things. It depends upon characteristics of the bullet particle:

- *Is it a proton? A helium nucleus?
- * Is the cyclotron running at 4 MeV or 40 MeV?
- * How massive is the particle?

And, of course, the target makes a difference:

- * Is the target carbon? Silicon? Lead?
- * How thick is the target? If it's too thick, it will stop all the particles.

Precision of the particle beam is vital. First of all, it has to be focused accurately enough and be bent correctly so it will hit the target. If it wobbles it is almost useless to the physicists who are now engaged in study of very intricate details of nuclei.

Accuracy pays off, and it is accuracy and dependability plus an automated computer hook - up that have made the MSU cyclotron facility the most advanced of its kind in the world.

Precision of the beam alone is thought by other U.S. physicists to be remarkable.

It exceeded all expectations by narrowing down from a drawing board 50 mm typical of previous cyclotrons, to an actual .7mm-diameter beam.

Magnetic field intensity — born from the center of the cyclotron — has been a wonder of design Princeton University has recently assembled a cyclotron similar to MSU's and they have exactly copied its magnetic field.

"PHYSICISTS FROM MANY parts of the world come here to investigate nuclear structure," said Harold P. Hilbert, project engineer of the cyclotron.

This summer, a Soviet physicist will conduct research at the facility.

Success of the laboratory does not end or begin with the crashing of nuclei into targets.

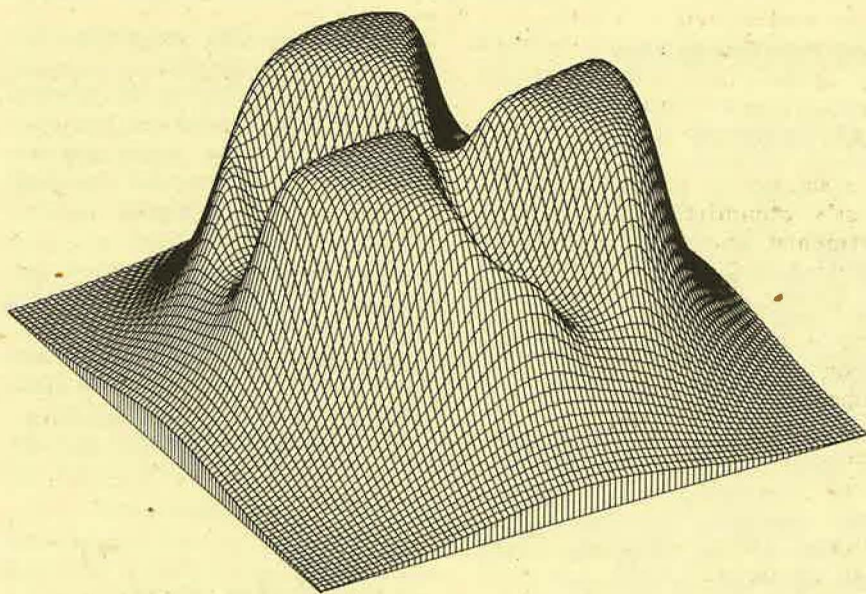
"We build most of the equipment ourselves," said Hilbert. "This saves costs."

Hilbert explained that since so much of the equipment is made in the cyclotron machine shop, it has a built - in flexibility and accuracy of concern.

"We make things work," he added.

The main trick is to see that everything is stable so scientists can be sure that the right particles with the correct energy will hit at the proper place and time. Once the target is struck, then protons, neutrons, atomic nuclei and fragments of nuclei usually fly off the target.

A PROTON FIRED from the cyclotron may draw one neutron from the target. This proton and neutron nucleus, called heavy hydrogen, is used by



Computer art? Not exactly, but thanks to the cyclotron's own computer, the Sigma 7, a magnetic field can be plotted artistically on a printout.

Gerald M. Crawley and others in NSF - supported investigations of nuclear structure.

Aaron Galonsky investigates neutrons which fly from the target, and he determines their velocity for clues on how neutrons reside in nuclei.

William H. Kelly, also a cyclotron physicist, works with MSU chemists on methods of determining the identity of elements in unknown substances. Such investigations make it possible to "fingerprint" the elements so that they can be identified by bombarding them with, say, protons. The bombardment would cause the elements to give off characteristic radiations. Crime laboratories of the future may well depend on such analyses, and pollutants could be traced and measured in food and water.

Edwin Kashy pointed out that the Cyclotron Laboratory is ready to make radioactive substances such as fluorine- 18 for local hospitals to help detect cancer. He explained that plenty of the tracer can be made from ordinary water.

The NSF grant, under the direction of Henry Blosser, supports the research already mentioned, plus the work of Sam M. Austin, Walter Benenson, Morton M. Gordon, Charles Gruhn, Jerry Nolen and Bryan Wildenthal. The projects range from detection of elements of pollution, to work with plant physiologists on how plants grow.

But the strongest common bond to these scientists is their dedication to basic research which will lead to an understanding of the structure of the nuclei of ordinary atoms — atoms of the suns, stars, and planets.

The MSU physicists now foresee few of the ultimate applications of their work, for their work is mostly pure research. But among the future applications possible are cyclotrons for medical patients and cyclotrons for environmental quality. And they foresee application of their work in producing electric power from the putting together of atoms — fusion — the taming of the fierceness of the stars.

—PHILLIP E. MILLER

Even before the cyclotron fired its first beam, there was considerable interest in the laboratory's progress. In 1963 on a tour of the still-uncompleted facility, MSU trustees and then-Pres. John A. Hannah discussed its plans with Henry Blosser (center, shirt sleeves).



Quotas to help control future enrollment

While student self-selection is currently governing enrollments in the College of Education, steps are being taken to insure future enrollment control.

After six months of study, a special provost's committee has released departmental quotas for secondary education enrollment.

The committee's action follows a general study of the College of Education in which the provost's office established that elementary education majors be limited to 1,100 and that student enrollments in secondary education (dual enrollees) be limited to 1,600.

Dorothy Arata, chairman of the special committee, said that the limitations are designed to: Prevent a swelling of teacher trainees beyond the

University's capabilities in future years, and insure that departments will look at a variety of criteria for admitting students.

Arata also pointed out that with only a few exceptions the newly established quotas will not mean major cutbacks, since they are set well above current enrollments in each discipline.

THE DEPARTMENTS IN which the quotas will mean significant cutbacks include social science and art. In social science the current enrollment is 279 and the quota is set at 116. In art, 119 students are enrolled and the quota has been set at 76. These quotas are expected to be met through attrition.

In other disciplines where the market is demanding more graduates, Arata continued, the quota is very high in order to encourage enrollments. In business education, for example, 32

students are now enrolled and the quota is 102. In general science, there are four students and the quota is 27, and mathematics has a quota of 186, while enrollment is only 111.

"One of the primary advantages in setting these limitations," Arata said, "is that we will be looking more carefully at admittance requirements, and more consideration will be given to the marginal student."

The University, cannot guarantee admittance to the major of every student's choice. He must demonstrate competence in his first two years. The marginal student is one who has proved himself capable of University work but is at the lower end of the spectrum.

"I WOULD LIKE to see departments begin sorting out and using a variety of measures which are capable of predicting the capacity of marginal

students in that particular area," Arata said.

It is important, she said, to start exploring the motivation and interests of marginal students as predictors of success.

In other words if the marginal student wants to teach it would be a plus in his or her favor if he had some past experience either tutoring or working with kids in summer camp.

Arata explained that the qualified student will never be completely locked out, because when a quota is filled, the department can petition for extra positions from a pool of all unfilled quotas.

She noted that the committee will also review the quotas several times a year to insure that the original estimates are reasonable.

—BARBARA MC INTOSH

Teaching awards: The long sorting job begins

Next week (March 3) nominations will be in for the Teacher - Scholar and Excellence in Teaching Awards, and a committee of eight persons will face the job of sifting through stacks of material stating the praises of many young teachers throughout the University.

How will they choose the winners — those deemed outstanding in their teaching contribution to the University?

The committee of eight (News - Bulletin, Feb. 10) will read through lists of teaching schedules, degrees earned, student evaluation results, syllabi, endorsement letters.

Before the six winners in each competition are named, a variety of questions will be considered:

Has the candidate made any creative suggestions for improving the range or depth of the course? How has the candidate contributed to the development of techniques designed to evaluate students? Has the candidate developed promising new approaches to the course?

How well organized is he or she? What indications are there of his/her excellence in academic advising?

SOME CANDIDATES will "surface" above the rest, experienced committee members say. Some cuts are obvious, they say. But for the remaining nominees, it is a long, involved, conscientious mental struggle, fitting vitae to relatively unstructured criteria.

For about a month, the committee of eight will review the material, visit classes, interview candidates, or

interview those students or faculty who nominated the candidates. They will pick out their favorites and argue for them in committee session. They will meet in continuous session until they take the more than 100 nominations

that are expected to receive and break them down to the 12 who will be honored with the awards and stipends.

The biggest problem is that what the committee is looking for is intangible, elusive. Yet the Committee on

Council OKs part of proposal

General education requirements must no longer be met solely within the University College.

The Academic Council Tuesday approved that portion of the proposed general education modifications, as prepared by the educational policies committee (EPC).

The Council also approved in principle a definition of general education prepared by a faculty committee in University College.

That definition, presented by Thomas Greer, professor of humanities, described general education as the essential complement to specialized education; a concept requiring a broad-gauged and coordinated curriculum, comprehensive, and interdisciplinary.

Seven thrusts in general education noted in the definition are: The natural and social sciences; technology; cultural heritage; historical perspectives on contemporary American civilization; alternative value systems in religions and philosophies; literature and the arts; current problems like war, poverty,

pollution, etc. A student in general education should, the definition states, improve his understanding and appreciation of, and his ability to respond articulately to (that is to write) all or most of the above.

Under discussion at the time of adjournment was the section which retained a 45 - credit general education requirement in the areas of arts and humanities; biological, physical or mathematical sciences; social and behavioral sciences, and writing or oral communication courses. Waivers would still be allowed; colleges could still substitute in the area closest to a student's major. And the University Curriculum Committee (UCC) would develop criteria for alternate courses.

Several amendments were proposed and defeated, and most of them were concerns raised by students; Why 45 credits? Why make writing courses the fourth general area?

The Council will reconvene to continue discussion at 3:15 p.m. Tuesday, Feb. 29 in the Con Con Room of the International Center.

Undergraduate Education argued that it is not impossible to identify it — students and colleagues generally know who are the best and worst teachers in a department, the committee said.

And this is why the coordinators of the award procedures (in the provost's office) are concerned about the breadth of involvement. The selecting panel has grown from one student member in the first year of the awards to four (or one-half of the panel) this year.

They are operating on the assumptions that: The University's interest in undergraduate teaching must be made more public, with monetary awards; to provide a form of encouragement to young teachers; to symbolize the University's need and desire to encourage them; to allow students to express their recognition of an exciting teacher.

It also leads into a discussion of philosophy of education. Is good teaching entertaining? Or is that irrelevant? Is the Pavlov or sponge or regurgitation model good teaching or not? If good teaching is an internal phenomenon, with the teacher as catalyst, how is this measured? How apathetic or cynical will the University community be on the matter?

There won't be total agreement on any criteria, the coordinators note, so they will look for a "total image" coming forth from the nominating forms. And the committee of eight will take it from there.

—BEVERLY TWITCHELL

A controversial author works on another book

A narrow, pale office on the Michigan State campus seems an unlikely habitat for a journalist famed throughout the Indian subcontinent.

Yet India's first woman journalist enjoys both East Lansing and Michigan's rugged winters, although her schedule affords her little leisure time.

"I work seven days a week," said Kusum Nair, a slight woman with short, dark hair and quick luminous eyes.

Newspapers, books and magazines threaten to take over her office as her own third book nears completion.

Mrs. Nair's first book, "Blossoms in the Dust," produced a blazing controversy in India when it was published in 1961. Today, the book is used as a textbook in colleges and universities throughout America.

MRS. NAIR BEGAN her journalistic career in 1942 as a proof reader on the Bombay Chronicle. She was the only woman on the staff, which made her decidedly unpopular with her colleagues.

"For a month, they would just talk to each other and never say a word to me," she said, smiling. "I sat it out and finally they said, 'Okay, we give in!'"

Although offered the job of women's page editor on both Bombay papers, Mrs. Nair left the Chronicle to write for several European papers and later for the Chicago Tribune. At the same time, she managed India's first press syndicate and worked on her first book.

"In 'Blossoms in the Dust' I tried to show the gap between what the man at the bottom said and what the government said about India's economic development program. The secretary of the planning commission read part of it and told me it would convey the wrong impression, and that I would have to revise it before it could be published. I refused to change a word, and an English firm published it."

The book was an immediate best-seller, and was heatedly discussed throughout India.

The next five years were devoted to "The Lonely Furrow," a comparison of farming in the United States, Japan and India. Her latest book, a

"comparative study of India and Japan since 1850 in terms of overall development and response to the West," will be published in March.

COMPARING THE OBSTACLES Indian and American women face as they challenge the idea of rigid masculine and feminine "roles," Mrs. Nair believes Indian society much the more enlightened.

"Of course, India has a woman prime minister today, when the issue of women's liberation is just beginning to be taken seriously in the West.

"I remember a party my daughter had eight years ago, when I was at Harvard. Some students were discussing women's liberation, and my daughter asked them when Americans would elect a woman president. The students were speechless!

"When they could talk again, they said they wouldn't want a woman president for this reason and that reason, and my daughter said, 'But you are so backward!'"

— Reprinted with permission, The Battle Creek Enquirer and News

Disposing of the campus 'byproducts'

One byproduct of MSU's bigness is becoming a source of major attention: The ever-growing amount of paper, cardboard, empty packages, liquids, animals and animal waste that has to be burned, hauled, buried or flushed daily.

This University is one of the first to centralize the job of waste control — an eight member Waste Control Authority was created more than a year ago — and now the campus has its first full-time director of waste control.

He is Mark E. Rosenhaft, a microbiologist who until last month was a management information specialist in the College of Agriculture and Natural Resources.

Rosenhaft is coordinating the job of identifying priorities and gathering figures that will help assess the University's present and future waste control needs.

And while the campus has most of the waste control problems that plague any community of some 50,000 residents, it has an advantage enjoyed by few cities of comparable size: A pool of faculty scientists and specialists whose research interests can be used in the job of trying to make waste disposal more efficient, safer and less expensive.

EFFORTS ARE UNDERWAY, for example, to find alternatives to the current procedure of picking up campus trash and hauling it to a sanitary landfill.

Hauling is becoming a bigger job, Rosenhaft notes, because of more solid waste and because several outdated MSU incinerators have been or soon will be shut down.

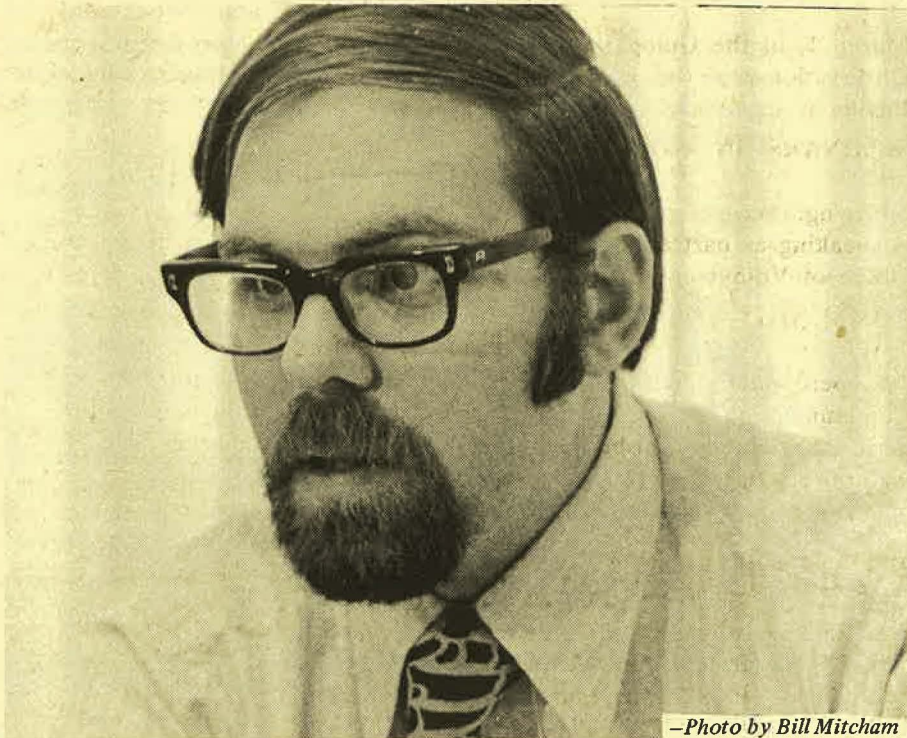
The volume of waste paper itself is a massive disposal task, he says. One vendor alone provides an estimated 55 tons of paper a month to the campus.

And there are other waste control problems unique to the University, such as, chemical and radioactive wastes from laboratories and animals and animal wastes from the Center for Laboratory Animal Research and the veterinary clinic.

Rosenhaft expresses hope that faculty research talents can help develop solutions to MSU's waste control problems and, in the process, provide applications off the campus. To this end, he says, the Waste Control Authority is ready to provide what help it can for scientists seeking public or private funds to do research related to waste control.

WHILE HIS initial task is to look at MSU's present waste control concerns, Rosenhaft emphasizes that "we're really interested in long-term solutions, not just in finding immediate answers that won't be feasible in a few years."

The Waste Control Authority is concerned, for instance, with the amount of automobile and bus exhaust emission on the campus. But more studies are needed to learn how much actual pollution comes from vehicles, and to see if other transportation systems might work here.



—Photo by Bill Mitcham

Mark Rosenhaft: Seeking alternatives to control waste.

"It's one thing to say that cars and buses are bad," Rosenhaft says, "but it's another to find suitable alternatives."

ROSENHAFT PLANS to make waste control a priority consideration in planning new facilities, such as the power plant addition, Life Sciences II and the Ice Arena.

The new Ice Arena, he says, could be used as a model to test for alternate methods of trash disposal that might eventually have application for other campus buildings.

For the present, Rosenhaft says he wants to identify the University's waste disposal needs and the researchers who are doing research related to those needs. His office is located in 497 Administration Building (phone 355-1826).

Turning 'credit weeks' into 'benefit years'

For eligible MSU employees who might some day find themselves jobless, the new legislation that has extended unemployment compensation coverage to the campus means an added assist between jobs.

For the University it means the operation of a new office and a campaign to help inform people of the complexities of unemployment compensation.

The Unemployment Compensation Division, less than two months old, is managed by L. Michael Smith, a former assistant director in financial aids. One of Smith's first tasks is to "educate the University community" on some of the likely effects of state and federal employment security legislation.

And part of that education involves introducing some new terms into the campus vernacular: "Benefit year," "credit week" and "family class" to name a few.

Eventually, Smith says, his office plans to develop an "experience rating" that will provide campus administrators with such information as turnover reasons, rates and suggestions to help keep down unemployment compensation costs.

Since the University has never had experience with unemployment compensation, there can only be estimates of what the coverage will cost annually. Until a figure is determined, a central fund will be used to pay unemployment claims for all general University accounts for the next 18 months.

* * *

BRIEFLY, HERE is how the coverage operates:

* Eligibility. Every person who performs services for MSU — faculty, staff, hourly payroll — is covered by the Michigan Employment Security Act. The only specified exceptions are students, including graduate assistants;

certain agricultural laborers; and some high school students.

There is no distinction between part-time and full-time employment; the only criterion is that an employee must have earned more than \$25 a week for the week to be considered in figuring benefits. This is a "credit week," and an unemployed person must have at least 14 of them during a 52-week "base period" to be eligible for unemployment compensation.

In addition, a person must be registered for work with the Employment Service of the Michigan Employment Security Commission, and be available for and seeking full-time work. But the work must be "suitable," so a college professor is not required to accept a job as a truck driver, nor is a secretary expected to seek work as an auto worker.

Someone otherwise eligible to receive benefits may be disqualified if he or she: Quits a job without good cause, attributable to the employer; refuses to report for a work interview or to accept an offer of suitable work; or is discharged for misconduct, intoxication or other reasons. (A person who quit without cause or who was fired may become eligible for benefits after a six- or 12-week disqualification period.)

* Benefits. These range from \$16 to \$92 a week, depending on average weekly wage and number of dependents. The duration of the claim (up to 39 weeks) depends upon reasons for termination and the number of "credit weeks" accumulated.

* * *

THE NEW LEGISLATION will have an effect on all MSU personnel practices, Smith says, but he emphasizes that there won't be any attempts to dictate what those practices should be.

"Our job is to provide data for each department to use when determining

their own procedures," he adds. "Unemployment compensation is simply another factor to be considered when prospective employees are interviewed."

And he says that the new Unemployment Compensation Division is not designed solely to hold down costs; its aim is also to give employees

information regarding their rights under the legislation and to direct them to the proper office of the Michigan Employment Securities Commission.

Although the legislation only became effective Jan. 1, claims have already begun to come to the division.

More information is available from the new division in 308 Administration Building (phone 355-9631).

Votapek concert Friday

Pianist Ralph Votapek will present a concert Friday at 8:15 p.m. in the Music Auditorium.

Votapek, who holds degrees from Northwestern University and the Manhattan School of Music, joined the music faculty in 1968 as an assistant professor and artist in residence.

His tours have taken him throughout North, Central and South America and Europe. He has also performed with major symphonies, including the New York Philharmonic, the National Symphony in Washington, D.C., and the London Philharmonic.

Votapek made his New York debut in 1959 after winning the Naumberg

Award, and in 1962 he won first prize at the Van Cliburn International Piano Competition.

Votapek met his wife, Albertine, when they were both studying with Rosina Lhevinne at the Julliard School of Music. Mrs. Votapek, who holds a master's degree from Julliard, has appeared in duo concerts with her husband.

Friday's concert will include the "Sonata in F Major" by Haydn, the "Sonata in G minor" of Robert Schumann and Alexander Scriabin's "Fifth Sonata." Votapek will also play three Debussy Images from Book I, and selections from "Mirrors" by Ravel and the "Iberia Suite" of Isaac Albeniz.

Votapek will perform this concert later on a U.S. tour and eventually on his South American tour this summer.

Getting a head cold?

A former clinical director of the National Institute of Allergy and Infectious Diseases will discuss two widespread winter maladies — influenza and the common cold — at a lecture Monday Feb. 28 at 10:30 a.m., 137 East Fee Hall. Reservation information is available at 355-9611.

The speaker will be Vernon Knight, chairman of the department of microbiology at the Baylor University School of Medicine.

Campaign '72

Items for listing in "Campaign '72" should be of interest to and involve faculty and staff, and should be activities on the campus.

U. S. Sen. Philip Hart and Sander Levin will discuss their endorsements of Democratic Presidential hopeful Edmund Muskie at a meeting Saturday (Feb. 26) at 10:30 a.m. in the Wonders Hall Kiva. It is sponsored by the Youth Coalition for Muskie.

BULLETINS

BOARD MATERIAL DUE Material for the March 17 meeting of the Board of Trustees is due in the office of the Executive Vice President by Friday, February 25.

BWC LUNCHEON The MSU Business Women's luncheon will be held at 11:45 a.m., Wednesday, March 1, in the Union Ballroom. Leland W. Carr will present "Some Observations by the University Attorney." For reservations, contact Phyllis Stasik, 3-9430.

SEMINARS ON AGING Barrett Lyons, professor emeritus in social work, will present "Legislation on Aging: Present and Future" at 7 p.m., Tuesday, Feb. 29, in 30 Union. He is speaking as part of the "Aging in America" series sponsored by the Office of Volunteer Programs.

COMM ARTS LECTURES Alfred E. Opubor, director of the African Studies Center, will speak on "Prospero and Caliban Revisited: Sociolinguistic Aspects of International Communication" as part of the College of Communication Arts Lecture Series. The lecture will be held at 7:30 p.m., Thursday, March 2, in 116 Natural Science.

"WOMAN"

Jean Medick will speak on "Woman" as part of the "Thought—Talk and Prayer" series being held at 8 p.m., Wednesday, March 1, at St. John Student Center.

CREATIVE WRITERS

The Faculty Folk Creative Writers will meet at 1:15 p.m. on Wednesday, March 1, at the home of Mrs. A.H. Leigh, 1016 Northlawn, East Lansing. Readers will be Diana Higgs, Elizabeth Ackerman, and Barbara Rice.

DOG OBEDIENCE

Dog obedience classes sponsored by the wives of veterinary students will be held on Thursdays at 7 p.m. in the Judging Pavilion March 30 through June 1. Enrollment is \$17.50. For information, call (days) Mrs. Wilson, 393-2388 or (evenings) Mrs. Shebuski, 349-3757.

HAWTHORNE LECTURE

James Cox of Dartmouth College will give a lecture on Nathaniel Hawthorne entitled "The Scarlet Letter through the Old Manse to the Custom House" at 8 p.m., Thursday, March 2 at Kresge Art Center. The lecture is sponsored by the English department.

CONFERENCES

Feb. 25-26 Mich. Natural Resources Council
Feb. 27- Basic Claims Adjudicators I
Feb. 28- Park & Recreation Law Enforcement
Feb. 29 Project 80 and 5
March 1 Social Work Institute Youth & the Public Schools
March 1-2 Project Engineers Conference

March 3 Wage-Price Control, Phase II

March 3-4 Gladiolus Growers Conf.

All conferences will be held in Kellogg Center unless otherwise noted. Students and faculty members are welcome to attend these continuing education programs. Those who are interested should make arrangements in advance with the Office of University Conferences, 5-4590.

EXHIBITIONS

Kresge Art Center

Main Gallery: Works from the permanent collection.

Entrance Gallery (thru Feb. 27): Prints by New York artists, Minna Citron and Jan Gelb.

North Gallery (thru Feb. 27): Contemporary paintings and prints from the collection of the Flint Institute of Arts.

Center for International Programs

Main Lobby: The Organization for Tropical Studies; The Fulbright Exchange Program

Museum

First floor: Tombstone rubbings by Chet Trout.

SEMINARS

MONDAY, FEBRUARY 28, 1972

Properties of cells in isoleucine deficient media. **Robert Tobey**, U. of California, Los Alamos National Laboratory, 4:10 p.m., 101 Biochemistry (AEC Plant Research Lab).

New programs and developments in extension in Michigan. **G.S. McIntyre**, 12:30 p.m., 126 Anthony (Dairy Science).

Influenza and the common cold. **Vernon Knight**, Baylor College of Medicine, Houston, 10:30 a.m., 137 East Fee (Microbiology & Public Health).

The theory of strong interactions at high energies. **E. Berger**, Argonne National Laboratory, 4:10 p.m., 118 Physics-Astronomy (Physics).

Primate prolactin—its production in AP organ culture. **Richard R. Gala**, Wayne State University, 4 p.m., 216 Giltner (Physiology).

TUESDAY, FEBRUARY 29, 1972

In vitro auxin binding and localized adaptation in corn coleoptiles. **Rainer Hertel**, U. of Freiburg, Germany, 4:10 p.m., 106 Plant Biology (AEC Plant Research Lab).

The care and feeding of non-existent compounds. **Evan H. Appelman**, Argonne National Laboratories, 4 p.m., 136 Chemistry (Chemistry).

Research program review. **Dean Haynes and Fred Stehr**, 7:30 p.m., 244 Natural Science (Entomology).

Enzymatic development of volatile flavors in onion. **Panfilo Belo**, 4:10 p.m., 110 Anthony (Food Science & Human Nutrition).

Gastrointestinal tract: conventional vs. germ-free animals. **Vala Stultz**, 12:30 p.m., 102 Human Ecology (Food Science & Human Nutrition).

Factors influencing chloroxuron (tenoran) selectivity in onions—alterations of phytotoxicity by herbicidal interactions. **William McReynolds**, 4 p.m., 206 Horticulture (Horticulture).

Tame and wild arcs. **John G. Hocking**, 4 p.m., 304A Wells (Mathematics).

Involvement of inorganic ions in cell walls and transport. **R.A. MacLeod**, MacDonald College, McGill U., Montreal, 4:10 p.m., 146 Giltner (Microbiology & Public Health).

The limiting age distribution for multi-phase age—dependent branching processes. **Wen-Ho Kuo**, 4:10 p.m., 405A Wells (Statistics & Probability).

WEDNESDAY, MARCH 1, 1972

What's new in agricultural research. **Sylvan H. Wittwer**, 4:10 p.m., 168 Plant Biology Lab (Botany & Plant Pathology).

DC nationalism and limitations on LDC development: inferences from Japan's trouble in the world. **Koji Taira**, U. of Illinois, 3:30 p.m., 3 Marshall (Economic Development).

Evaluation of nutritive value of tropical forages. **Henry Kayongo-Male**, 4 p.m., 126 Anthony (Institute of Nutrition).

Teaching and learning the art of veterinary medicine. **Sam Getty**, 8 a.m., 149 Veterinary Clinic (Large Animal Surgery & Medicine).

Chern classes of group representations. **C. Thomas**, Yale U., 4:10 p.m., 304A Wells (Mathematics).

THURSDAY, MARCH 2, 1972

Gaps in research on rural welfare. **Luther Tweeten**, Oklahoma State U., 3:30 p.m., 213 Agriculture (Agricultural Economics).

Closing assembly of seminars on South Asia and U.S. foreign policy. **W.T. Ross**, 7:30 p.m., Con Con Room, International Center (Asian Studies Center).

The effect of Ca concentration, epinephrine and mechanical factors on the time course of the heart beat. **Emil Bozler**, Ohio State U., 4 p.m., 449B Life Science 1 (Pharmacology).

The effects of Dibrom on the respiratory activity of the stonefly, *Hydropsyche crosbyi*, hellgrammite, *Corydalis cornutus*, and the golden shiner, *Notemigonus crysoleucas*. **Alan W. Maki**, 1:30 p.m., 221 Natural Resources (Fisheries and Wildlife).

FRIDAY, MARCH 3, 1972

Aerial application techniques. **Arthur "Archie" Gieser**, 9:30 a.m., 244 Natural Science (Entomology).

Observations and experiences in medical education with special reference to Michigan State University and the University of Nairobi. **Joseph M. Mungai**, U. of Nairobi, Kenya and W.H.O. Post Doctoral Fellow, Office of Medical Education Research and Development, MSU, 1:30 a.m., 140 Fee (Medical Education Research & Development).

Public information and lake eutrophication: a case study of Gull Lake in southwestern Michigan. **George H. Lauff**, Kellogg Biological Station, Gull Lake, 11:30 a.m., 140 Natural Science (Zoology).

For general information about MSU, call 353-8700.

Calendar of Events

Friday, February 25, 1972

- 10 a.m. Board of Trustees meeting.
- 7:30 p.m. Gymnastics—MSU vs. Michigan. Jenison Fieldhouse.
- 7:30 p.m. Hockey—MSU vs. Wisconsin. Ice Arena.
- 8 p.m. Rodeo—Livestock Pavilion.
- 8 p.m. "U.F.O."—Probing the possibilities of life existing on other planets, this program portrays stories of mysterious flying saucer encounters. Tickets at door. Abrams Planetarium.
- 8:15 p.m. Faculty recital—Ralph Votapek, pianist. Music Auditorium.
- 10 p.m. "U.F.O." (see above). Abrams.

Saturday, February 26, 1972

- 1 p.m. Rodeo—Livestock Pavilion.
- 2:30 p.m. "U.F.O." (see Feb. 25). Abrams.
- 8 p.m. "Turandot," the last of Puccini's operas, features more than 200 performers. Buses for the performance will leave Shaw parking lot at 6:45, University Village at 6:55, Spartan Village at 7:05, Case - Wilson halls at 7:15, and the Union at 7:30 p.m. and will return at the conclusion of the opera. There is no charge for admission. Okemos Fine Arts Center.
- 8 p.m. Basketball—MSU vs. Iowa. Jenison Fieldhouse.
- 8 p.m. "U.F.O." (see Feb. 25). Abrams.
- 8 p.m. Rodeo—Livestock Pavilion.
- 10 p.m. "U.F.O." (see Feb. 18). Abrams.

Sunday, February 27, 1972

- 1:30 p.m. Hockey—MSU vs. Wisconsin. Ice Arena.
- 2 p.m. Rodeo—Livestock Pavilion.
- 4 p.m. "U.F.O." (see Feb. 25). Abrams.
- 6:30 p.m. Lecture-Concert Series—Pianist Daniel Barenboim and violinist Pinchas Zukerman will present a duo recital. Tickets are available at the Union Ticket Office. Auditorium.
- 8:15 p.m. Graduate recital—Pianist Frank Scott will perform works of Sessions, Beethoven, Bach-Busoni, and Carl Nielsen. Music Auditorium.

Monday, February 28, 1972

- 8:15 p.m. Lecture-Concert Series—Daniel Barenboim will conduct the Chicago Symphony Orchestra, featuring Pinchas Zukerman as violin soloist. Tickets are available at the Union Ticket Office. Auditorium.

Tuesday, February 29, 1972

- 12 p.m. University Club luncheon—The Beaumont String Quartet, including violinists Walter Verdehr and Theodore Johnson, violist Lyman Bodman, and cellist Louis Potter, will perform Haydn's "Quartet, Opus 77, No. 1 in G Major."
- 8 p.m. Folkdancing—International folkdancing is taught for singles and couples. St. John Student Center, 327 M.A.C.

Wednesday, March 1, 1972

- 8 p.m. Pop Entertainment—Singer Don McLean of "Bye, Bye, Miss American Pie" fame will appear in concert with Rita Coolidge and her band, Marc Benno and the Dixie Fliers. Tickets may be purchased at the Union Ticket Office. Auditorium.
- 8:15 p.m. "Oedipus the King"—The MSU Department of Theatre will present a graduate thesis production of Sophocles' tragedy, directed by Michael Firestone. Tickets are available in advance from the theatre boxoffice from 12-5 p.m. weekdays. Arena Theatre.

Thursday, March 2, 1972

- 1 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 7 p.m. Bridal Show—The eighth annual flower and bridal show presented by MSU floriculture students, "I Thee Wed," will feature three complete weddings, two whimsical interludes, a complete reception, and more than \$20,000 worth of flowers and gowns. Tickets are available at 109 Horticulture, or may be purchased at the door.
- 7:30 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 8 p.m. "Oedipus the King" (see March 1). Arena Theatre.
- 8 p.m. "Civilisation"—"Grandeur and Obedience," Part VII of Kenneth Clark's remarkable series, will be shown by the Friends of the Library. Admission is free. 108B Wells.

Friday, March 3, 1972

- 1 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 7 p.m. "Tommy"—New Players and ASMSU Pop Entertainment combine forces to present the rock opera made famous by England's "The Who." Tickets may be purchased at the Union Ticket Office. Erickson Kiva.
- 7:30 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 8 p.m. "U.F.O." (see Feb. 25). Abrams.
- 8 p.m. World Travel Series—Stan Midgely explores "British Columbia." Auditorium.
- 8:15 p.m. "Oedipus the King" (see March 1). Arena Theatre.
- 8:15 p.m. "The Gondoliers"—The MSU Opera Workshop will present a fully staged production of Gilbert and Sullivan's work. Tickets are available at the Music Department and at the door. Music Auditorium.
- 10 p.m. "U.F.O." (see Feb. 25). Abrams.
- 10 p.m. "Tommy" (see above). Erickson Kiva.

Saturday, March 4, 1972

- 12 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 2 p.m. "The Gondoliers" (see March 3). Music Auditorium.
- 2:30 p.m. "U.F.O." (see Feb. 25). Abrams.
- 7 p.m. "Tommy" (see March 3). Erickson Kiva.
- 7:30 p.m. Swimming—Big Ten meet. Men's IM Pool.
- 8 p.m. Basketball—MSU vs. Michigan. Jenison Fieldhouse.
- 8 p.m. "U.F.O." (see Feb. 25). Abrams.
- 8:15 p.m. "Oedipus the King" (see March 1). Arena Theatre.
- 8:15 p.m. "The Gondoliers" (see March 3). Music Auditorium.
- 10 p.m. "Tommy" (see March 3). Erickson Kiva.
- 10 p.m. "U.F.O." (see Feb. 25). Abrams.

BULLETINS

STUDENT FILE

The Computer Laboratory maintains files of students desiring employment and employment opportunities. Faculty members having employment opportunities open to students should contact the Computer Laboratory Office (5-3600) or Donald E. Horner (3-6739) to list such positions or search for qualified applicants.

TELEPHONE BOOKS

The 1972 Lansing telephone books will be available and will be delivered from the Receiving Dept. of the Materials Handling Division after March 10. Requests for directories must be submitted on the regular "Request for Supplies from Stores" form. Send orders, separate from other supply orders, by campus mail, to Sam Burge, Supervisor of Receiving Dept. No telephone orders will be accepted.

OFF-CAMPUS TRAINING

Departments with students in off-campus training for credit spring term should send a list of these students to Residence Halls Assignment Office, 190W Holmes Hall to expedite releasing these students from their housing contracts.

MEN'S IM SCHEDULE

The Jenison tartan track will be open to joggers from 8 a.m. to 3 p.m. and 5:15 p.m. to 10 p.m. on Thursday, Feb. 24, and from 1 to 2 p.m. on Sunday, Feb. 28. There will be no basketball from 5:15 p.m. to 6:30 p.m. on Thursday or from 1 to 2 p.m. on Sunday. The IM Building will be open until 10:30 p.m. on Thursday, Friday and Saturday, March 2, 3, 4. Jenison Pool will be open from 6:30 to 9 p.m., Wednesday, Thursday, and Friday, March 1, 2, and 3, and from 11:30 a.m. to 2 p.m., March 2 and 3.

Information on MSU events may be submitted, for possible inclusion in the bulletins, to Patricia Grauer, Dept. of Information Services, 109 Agriculture Hall, (517) 353-8819. Deadline for submitting information is noon Tuesday preceding the Thursday publication. The calendar of events will cover an 8-day period, Friday through Saturday.