Admissions decline--a state trend

MT. PLEASANT — Next fall's freshman class could well be the smallest in years among Michigan's state colleges and universities. Applications for admission have declined at all the state and many officials are beginning to suspect that the drop-off is part of a trend — perhaps a national trend — caused by a sagging economy and changing patterns in college education, income from a survey taken by the information services office at Central Michigan University.

Of nine Michigan state colleges and universities checked, only two reported an increase in applications for admission. At Ferris State College a 5 percent increase is being attributed to growing interest in the school's nationally recognized programs in vocational and technical education, while at MSU the increase is slightly more than one-tenth of one percent.

Applications among first-time MSU freshmen through January are about 80 ahead of a year ago. In-state applications are up by 524, and out-of-state applications have decreased by 642.

Others are experiencing a decline. At Western Michigan applications are running 29.7 percent behind the total at this time a year ago. Central Michigan reports a 29 percent decline; Grand Valley State, 20 percent; Eastern Michigan, 10 percent; Northern Michigan is down 9 percent; Wayne State, 5 percent, and even the University of Michigan is down 1 percent.

World's first

Nuclear physicist Walter Benenson checks the exposure of a photographic plate used to verify the existence of illusive silicon-25. Benenson and colleagues at the Cyclotron Laboratory are first in the world to determine the names of four such particles. See story, page 6.

How MSU almost became part of U-M

Can you visualize MSU and the University of Michigan as a single institution located in Ann Arbor with a student body of perhaps 75,000 students?

Nearly nine decades ago this might have become a reality. A plot to shift MSU (Michigan Agricultural College) to the Ann Arbor campus was hatched in 1863. A battle raged in the Michigan legislature on this question for six or seven years, followed by a period of inactivity.

This crucial educational crisis is described by two historians, W. J. Beal in his "History of the Michigan Agricultural College" and Madison Kahn in "Michigan State: the Turning Point, 1863-1928.

The intrigue began in 1863, the year following passage of the Morrill Act that created the land-grant college and university system. Included in the act were provisions for grants of land that could be sold, with the money used for endowment of a college "to teach such branches of learning as are related to agriculture and the mechanic arts."

MICHIGAN AGRICULTURAL COLLEGE had been founded by the Legislature a few years earlier in 1855 and is now considered a pioneer of the land-grant system. Up to the time of the land-grant bill, UM officials had paid little heed to the struggling little college with a half-hundred students located in the malaria-ridden swamps and wilderness of south central Michigan.

Although UM administrators previously had tried halfheartedly to establish agricultural education courses on the Ann Arbor campus, they were spurred into new action with the passage of the Morrill Act.

The quarter million acres of Michigan land that was up for grabs precipitated the opening rounds of the legislative battle in Lansing. Early in 1864 a majority
Jim Adams: The voice of Spartan sports

Once a week he moves in front of the telephone and speaks on WMSB to co-host "Spartan Spotlight" with associate sports director Terry Braveeman. "I guess I've wanted to do sports broadcasting for as long as I can remember," Adams said. "Even in grade school during the soccer games at rec. I'd be playing and doing the play-by-play."

The first big break of Adams' career came in the fall of 1948 when WKAR went on FM and began to broadcast basketball games. Bob Shackleton, who is now the director of alumni relations at MSU, was the sports director and asked Adams to do the "color."

In the summer of 1963, Shackleton moved up to program director at WKAR and offered Adams the job of sports director, a job he's held ever since.

In 24 years of broadcasting, Adams has no trouble recalling his greatest moment: The 1957 NCAA regional championship at Lexington, Ky. MSU won its Friday night game (while Adams was back in Lansing broadcasting a high school game) to move into the finals against Kentucky.

Saturday morning Adams was handling the public address chores at a remaining meet when he got an urgent phone call from Lexington. Shackleton had come down with a severe case of laryngitis and Adams had to catch the first plane south to fill in for him. He arrived an hour before the game, not even time to be nervous about his first big-time broadcast. That night, MSU scored its biggest basketball victory ever, beating Kentucky 80-68 after being behind by 12 at halftime.

"It's really funny," Adams noted, "since years after every Easter, people came up to me and said, 'hey, I remember you broadcasting that Kentucky game!"

But there have also been some times he'd just as soon forget.

Like the time in Iowa when he drove 100 miles to do a high school game and had a policeman come up to him in the second half to inform him that something was wrong with the transmitter and he hadn't been on the air the entire first half.

Or the time in Iowa when he broadcast a football game from the sidelines in a driving rainstorm that flooded the field and destroyed his commercial scripts. It wasn't until the second quarter that a woman in the stands brought him an umbrella.

"That was the worst game of my life," he said.

Like most sportscasters, Adams has wondered at times whether he would take a job in professional sports if the opportunity presented itself. He explained: "With college athletics there's no chance of getting tired or bored like in the pros." He explained. "Here, I work with a different group of people every few months. In the fall, when football is over, I move to basketball with new coaches and players. Then on to baseball just about the time I get tired of being indoors. By the time I'm sick and tired of traveling, summer comes and it's back to office work.

"I know too many people who hate to wake up in the morning and go to work," he added. "To me that would be terrible. I feel fortunate that I'm doing what I've always wanted to do."

For a couple of weeks each summer, Adams puts athletics aside and goes to work on his pet project, a television commercial script for a "Spartan Spotlight" ad for the MSU athletic department.

MSU-U-M...

(Concluded from Page 1)

The State Agricultural Society, mainly responsible for the establishment of the Michigan Agricultural College in the first place, marshalled its forces to convince the legislators that the East Lansing institution should receive the federal lands. Although the State Legislature assigned the Congressional lands to the college in 1863, the fight raged for the next six years. Bills were introduced in the biennial sessions of 1865, 1867, and 1869 to transfer the college to Ann Arbor. In each case the bills failed, the pressure was enough to prevent the college from receiving any state money for new buildings.

During these years, however, the agricultural college gained more friends and a new fear obsessed many legislators. Their concern was that the next step after the federal lands to the college would be the "start" of the entire state capitol from Lansing to the Detroit area.

The last serious attempt to combine the two institutions was in 1869. As a consequence, Michigan now has two, rather than one, of the nation's largest and most outstanding universities, as well as several other colleges and universities of national reputation.

If the battle to move Michigan Agricultural College to Ann Arbor had succeeded...

* The University of Michigan today would probably be the largest one-campus university in the world.
* One of the great intercollegiate athletic rivalries with selless attendance of 78,000 to 100,000 fans at annual football games wouldn't exist.
* U of M students would have been deprived of the joy of poking fun at "Silo Tech" and "Mow-U."

Recital to be held Friday

Elsa Ludewig Veredr, clarinetist and David Rennier, pianist, both members of the music faculty will be heard in concert at 8:15 p.m. Friday in the Music Auditorium.

The program will include "Sonata Concertante in B Flat Major" by Franz Bruckner, "Three Miniatures" by Krzyslof Penderecki, and "Five Dance Preludes" by Witold Lutoslawski. Penderecki and Lutoslawski are noted contemporary Polish composers. Mrs. Veredr will also perform Carl Maria von Weber's "Quintet, Opus 34 for Clarinet and Strings" with the Beaumont String Quartet.

Mrs. Veredr, who is a member of MSU's Richards Woodwind Quintet, will also perform a "Clarinet Concerto" with a string ensemble and a performer's certificate from the Eastman School of Music.
Around the campus: A weekly review

Women plan organization

About 40 women met last week in the MSU Union to discuss the possible formation of an advisory commission on women at MSU. They decided to establish a steering/planning committee which would exist for three months to:

- Define issues concerning the status of women at MSU
- Assume the role of women’s advocate
- Develop a proposal for future action
- Hold monthly publicized open meetings.

The steering committee would be established during a two-week period (publicized by the Office of Equal Opportunity). By July 15, any woman interested in serving on the committee could submit her name and other relevant information (such as position within the University, marital status, etc.) to EOP staff member, Olga Dominguez, by 4:30 p.m. The list would be submitted to President Wharton, who would be asked to select a representative group of at least 12 women to serve on the committee. Wharton would also be asked to suggest to the women’s committee. Wharton would also be asked to suggest to the women's committee to remove a vice president for student affairs.

Deadline set

The Center for Urban Affairs is accepting applications until Feb. 30 for teaching and research assistantships, and until Aug. 1 for the 1973-74 academic year. Information is available at 145 Owen Hall.

AC discusses general ed.

The decision to modifier— or not to modifier— the University's general education program won't be a hasty one. The Academic Council spent about an hour and a half debating the topic Tuesday, and members were really just warming to the issue when adjournment was proposed at nearly 6 p.m.

Deliberations of the general education proposals will be continued later this month in the Council, and some changes in these proposals are possible as soon as this month when the educational policies committees will be able to discuss initial Council reaction to the documents.

A group of a dozen faculty and students spoke to the issue Tuesday, and their comments ranged from general endorsement of the general of modifications to outright opposition. One student member was prepared to move to strike the provision for a degree program in general studies.

Several faculty members contended that no case had been made to show that the present general education program needing changing, and a few called for a definition of general education. Others expressed concern that to open the job of general education to all colleges and units might result in duplication and competition.

No action was taken on the proposal Tuesday, and the next Council session (to continue discussion on general education) has not yet been set.

In other items the Council:

- Voted to instruct the faculty steering committee to devise a policy for making available tapes of Council meetings. If at all, the Voice Library would be a logical location for taped Council proceedings.
- Another motion granted release of the transcription of the Nov. 30 meeting to Bob Repas, professor of labor and industrial relations. Repas has asked for a copy of that portion of the discussion leading up to the vote. He also has asked for the straw vote among Council members favored further discussion of the measures at the March meeting.
- Elected Marjorie Genes, professor of history; Donther Thornton, associate professor of psychology; and Paula Fochtmann, a junior, as the Council representatives to the special committee to select a vice president for student affairs.

Black police conference

The role of the black police officer, the pressures he faces, and ways to improve urban police - community relations are questions to be discussed this spring during a conference on "The Black Police Officer in Detroit." Sponsored by the MSU Center for Urban Affairs and the Detroit Police Department.

More than 2,000 persons are expected to participate in the programs which will be run simultaneously for 2½ days at five locations throughout Detroit.

Videotaped interviews with national experts commenting on the critical issues concerning black police officers will be presented at each conference location. These presentations will be followed by a speaker and then a reaction panel.

While the conference will provide a national focus on the plight of the black police officer, the primary objective will be to lessen the pressures in Detroit by stimulating community awareness and participation in improving the situation.

A series of recommendations expected from the sessions, and the bulk of the funds provided for the leadership to help him by the support specific follow-up projects in the community in the next year. The conference itself will be scheduled for May, April or early May.

Hidden Lake is honored

The Hidden Lake Garden at Tipton have received an award from the Michigan Horticultural Society, for accomplishments in the field of horticulture.

Hidden Lake Gardens, established in 1968 by Adrian businessman Harry A. Fee, encompasses 600 acres connected by seven miles of improved roads and five miles of hiking trails. More than 1,550 different species and cultivars representing 153 genera, have been planted since 1960.

The gardens conservatory complex includes a center containing a library, auditorium, meeting rooms and sales counter, a new plant conservatory with tropical and arid domes and a temperate house.

The gardens are open to the public from 8 a.m. to sundown on weekdays, 9 a.m. to sundown Saturdays, and 1 p.m. to sundown holidays. The plant conservatory is open 8 a.m. to 9 p.m. on weekdays, 9 a.m. to 7 p.m. on weekends and holidays. Guided tours are available.

WMSB goes worldwide

Forty international cities will soon enjoy WMSB - produced programs, courtesy of the United States Information Agency. U.S. embassies in the cities - which include Bogota, Mexico City, Tel Aviv, Beirut, Lagos, Madrid, Stockholm, Saigon, Hong Kong, and Warsaw - will show films of the videotapes at U.S. Information Service cultural centers. The films will also be available to local and national television systems.

The programs currently slated for distribution to U.S. embassies are: Three Young Musical Artists recitals (two with pianist Barbara Nissman and one with pianist Paul Jonas); nine Beethoven: Sonatas for Violin and Piano programs with violinist Paul Zukofsky and pianist Gilbert Kalish; and Van Cliburn International Piano Competition program with pianist Leon Fleisher.

On other campuses

SALARY FIGHT AT U.W. Pres. John C. Weaver of the University of Wisconsin has asked that state's governor to help provide funds to pay UW faculty salary increases retroactive to last July 1. The Wisconsin Legislature's failure to approve state budgets by July 1, coupled with the Phase I federal wage freeze, prevented UW faculty from getting raises until Nov. 13. The state's attorney general has ruled that raises could not be paid retroactive to July 1. And even though the UW Regents approved salary increases on Oct. 7 and 8, the state has only provided funds for raises effective Nov. 13. A court suit by UW is possible.

APPROVAL TO CONSULT. Regents' regulations at the University of Minnesota require that faculty members who wish to engage in "recurring professional services" (consultancies, non-University teaching, for example) must seek prior approval from the regents. In a recent memo, the faculty members were asked to file statements of outside commitments.

STARTING A TOWN. Ten graduate students at Penn State University are helping develop a community "from scratch" through a seminar in the department of architecture. The students will work with professional developers in analyzing and evaluating suggested innovations covering social, economic, educational and recreational opportunities of future residents. Faculty from 10 related disciplines - from economics to agriculture to landscape architecture - will serve as resource advisors.

NEW MINORITY AID. The University of Iowa has established what is believed to be the first journalism scholarship for minority students. The idea, developed and initially funded by motion pictures released from the mass communications, is to award a tuition scholarship annualy to a minority group member who will be eligible for other special support service funds.

GENERAL ED AT UTAH STATE. A new general education program has been adopted at Utah State University, whereby students may enroll in courses designated by a General Education Committee, or may suggest new courses or even help design them. Acceptable alternatives include individual study, travel and research participation. Under the old system, students were required to take a specified number of credits in courses in humanities and biological and physical sciences.
Dining in MSU

University faculty and staff (and their guests) choose from on campus. Coordinating manager of dormitories and food services, and one restaurant (not in dormitories and primarily to serve students), are open on campus — is open Monday through Friday, 11:30 a.m. to 2 p.m. and dinner 5:30 to 8 p.m. It is also open on weekends.

The State Room in Kellogg Center — is open Monday through Friday, 11:30 a.m. to 2 p.m. and dinner 5:30 to 8 p.m. It is also open on weekends.

La Ventura, the cafeteria in Kellogg Center — is open Monday through Friday, 7 to 10 a.m. and for lunch 11:30 a.m. to 2 p.m. and dinner 5:30 to 8 p.m. It is also open on weekends.

The Union Cafeteria — recently introduced personal dining, Thorburn says, is open Monday through Friday, 8 a.m. to 11 p.m. and Saturday and Sunday, 10 a.m. to 11 p.m. It is also open on weekends.
**Admissions...**

(Concluded from Page 1)

...factors, says admissions counselors at the respective schools. "Our guess has been that the economy is a strong factor," says James Bower, associate director of admissions at U-M. "Changes in the economy have caused parents to decide that their children cannot venture far from home to attend school."

"The traditional college attendance pattern is changing," reasons Russell Gabler of Western Michigan. "There's less pressure from the draft and more students are realizing that they can wait while deciding on college."

"It's part of a national trend," explains Austin Buchanan of Central Michigan. "The fact that people are finding that degrees don't mean jobs, the birth rate has slowed, changes in the draft law, the fact that more students are entering terminal programs, and economic conditions are all part of it."

"I think we are now in a period where admissions are going to level off. Maybe not continue to drop but maybe not to grow as many thought they would."

** BUT SO FAR the declines have had virtually no effect on the major schools' admission standards.**

The C-average high school senior will still find admissions prospects limited at most schools. At U-M, for example, "unless a student has a pretty strong B in a college preparatory program and SAT score of 1,000 or 1,100 the chances of admission are not very good."

Because most Michigan schools admit their students to the university and not to a particular field of study, admission requirements for specialized study also remain rigid.

Disadvantaged students retain some admissions advantage through special enrollment programs at most Michigan state colleges and universities, but some special opportunity programs are being phased out and admissions also are being limited.

** COLLECTIVELY, THE feeling among Michigan admissions people is that the economy has had the greatest impact on the dwindling number of college applications.**

"I think the economy has a great deal to do with it," says Ralph Gilden of Eastern Michigan. "Times are tight."

Information gathered from a cancellation study made last fall at Western Michigan supports his view.

The WMU survey was taken among freshmen and transfer students who cancelled admission before the beginning of the fall semester. Some 1,353 beginning freshmen and 718 transfers were asked why they had cancelled. Economic conditions was the reason most often given.

What impact tuition increases will have on the admissions picture throughout the state is still uncertain.

In the past year tuition has been increased at Central, Western, Northern, Eastern, Wayne State, Grand Valley, Ferris and the University of Michigan.

And, at least at U-M, there has been some effect on the number of applications from out-of-state.

So far this year out-of-state applications are down 13 percent at U-M. A year ago the university experienced a 20 percent out-of-state decline; overall a 15 percent drop in admissions.

"Our guess last year was that with our increases in tuition we might be pricing ourselves out of the market," observed James Bower.

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Spanish style decor in LaVentura, Kellogg Center's cafeteria

Photos by Bob Brown

**in MSU's shadows**

aff (and students) have a variety of eating facilities to Coordinated through the office of Lyle Thorburn, MSU's food services, the University's two grills, three (not including residence hall grills which are designed are open the following hours:

Kollig Center - the only restaurant with table service through Friday for lunch, 11:30 a.m. to 2 p.m., and is also open Saturday for breakfast, 8 to 11 a.m., for dinner 5:30 to 8 p.m. On Sunday the State Room 1 a.m. and dinner from 12:15 to 6 p.m.

in Kellogg Center is open Monday through Friday for lunch, 11 a.m. to 2 p.m.

recently refurbished to provide more personal dining areas.

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* The Union Grill, also recently refurbished with an expanded menu including items from hamburgers to fish "to steak, is open for breakfast through 11 a.m.
* Crossroads Cafeteria in the Center for International Programs is open Monday through Friday for lunch, 11 a.m. to 1:30 p.m.
* The Crossroads Grill is open Monday through Friday 7 a.m. to 4 p.m. and to serve evening classes, 7 to 9:30 p.m.

All facilities do catering for private parties or meetings, and while alcoholic beverages may not legally be sold, Kellogg Center will serve alcoholic beverages at catered affairs in the building if the patron provides the beverages. Also at all facilities, MSU employees may charge their meals to their office accounts at their own discretion.

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Physicists uncover illusive silicon-25

Scientists here have uncovered a substance called silicon-25 which disappears so fast and is so rare that all previous attempts to capture its secrets of mass and energy have failed.

This Tuesday (Feb. 1), at a meeting of the American Physical Society in San Francisco, MSU physicists reported that they had achieved the necessary art of squeezing the secrets from the short-lived silicon fragment.

As is so often the case, it was the art of applying technique that meant the difference between success and failure.

"There is no real breakthrough in the technique because other people have used it. It's just that the hardest case that's ever been done," says MSU physicist Walt B BENSON.

The method he and physicists J. DRENNER, Ivan D. PROCTOR, F. TRENTLEMAN and B.M. FREEDOM who worked in the MSU Cyclotron Laboratory came up with was similar, in part, to bullet-catching.

A bullet-catching trick used by some ballistics experts is to fire a bullet through a barrier which slows it to a halt without damaging it too severely. The final barrier may be layers of paper, or magazines, and the bullet may stop on a page of an old "Post" magazine.

"We used sheets of metal in front of a photographic plate to slow the particles of helium-6 so that they leave a big and bright track," says BENSON.

In this case, the photographic plate served as did the old "Post" magazine. That is where the helium particle was stopped and detected. Using information on its energy and mass, they calculated the energy and mass of silicon-25.

Some of the particles they didn't want were stopped before they could reach the photographic plate. Others went through the plate so fast that they didn't leave much of an exposed trail on the photographic emulsion.

What they found first and special photographic plates should have been like a blindfolded man with a one-shot camera trying to take a picture of home number 25 in a one-minute stampede of 100,000 wild horses, because BENSON says, "they got away but 100,000 other particles striking the plate at the same time as the one helium-6.

"Our breakthrough has been to get all of the low-lying energy levels," says the researcher. "The interest in this is that these nuclei are symmetric with other nuclei that are known. The differences between other nuclei of the same mass are something you can calculate and are very closely related to the actual energy levels of various kinds of matter."

There is more to tombstone rubbing than simply transferring the impression. TROUT says that it is fascinating to trace the evolution of art work on headstones, for as religion and culture progressed, so, too, the tombstones changed. The skull on the earliest American headstones gradually changed into cherub around 1790 and then later into the mass produced urn and willow markers found today.

These patterns developed, TROUT continues, despite the fact that the "artists" had no contact with each other and rarely saw examples of their compatriots' work.

"In fact," he says, "because the population was so sparse before 1800 it could not support a sufficient number of artists."

Instead, TROUT explains, "tombstone rubbers" went over the pattern in the same direction, and then with more strokes all in one direction removed from the tombstone and that is where the helium particle was stopped and detected.

"We are after: Nuclear energy levels of various kinds of matter.

Nearly three years ago the Academic Council established a committee whose charge was to develop procedures by which the president and other principal officers of the University were to be appointed.

The first part of that charge was completed and accepted by the Council, according to university regulations, were the procedures by which CLIFFORD R. WHARTON Jr. was selected MSU's president.

But whatever because of the last half of the charge?

To become President Wharton: At least two drafts were prepared by the committee, the last one being submitted informally to the executive group (top University officials) for reaction prior to submission to the Academic Council.

There was also an informal discussion with the Board of Trustees. There were some strong objections in the executive group to some provisions of the draft, WHARTON said. He cited a difference of opinion on definition of chief University officers -- the committee's definition was broad, including in addition to the University president the University staff and people within the provost's office.

The discussion with the trustees was held, WHARTON said, because it was known that some members had strong feeling on an issue used to date of their opinions might be useful for consideration before the committee went through the entire exercise of sending the proposals through the Council and up to the Board.

No vote was taken by the trustees, Wharton stressed, but it was thought that a significant majority of the members would not approve in any form the procedures for selection of top University officers. Trustees said they would look to the president for recommendations but were not concerned about how the recommendations were arrived at, Wharton said.

And so ended the committee's deliberations.

Despite the fact that no formal action was ever taken on such procedures, President Wharton has incorporated some of the recommendations for use in the selection of a vice president for student affairs -- a position which has been vacant since June.

But because the original committee was established by the Academic Council, and because the Bylaws for University Governance (which have been approved by the Board of Trustees), provide for the advice and consultation of the "appropriate faculty" in selection of principal University officers other than the president (Section 4.2), -- Steering Committee member Thomas Greer, professor of humanities, is concerned about the unfinished task.

So Greer has proposed that a new committee be set up to develop the collaboration procedures called for in the bylaws. And the matter should be placed on a future Council agenda -- possibly March.

What role for faculty in selecting top officers?

He does tombstone art

Chet Trout rubs everything the right way -- particularly tombstones.

Recapturing a true early American art form, Trout has a collection of more than 50 tombstone rubbings from the earliest days in American history.

Part of this collection, including a rubbing dated 1681 and another from a tombstone of a Mayflower pilgrim, are currently on display in the MSU Museum.

TROUT is the chief preparator of exhibits at the museum but in his free time he continues his work as a master watchmaker, painter and "rubber." There is more to tombstone rubbing than simply transferring the impression.

TROUT says that it is fascinating to trace the evolution of art work on headstones, for as religion and culture progressed, too, the tombstones changed. The skull on the earliest American headstones gradually changed into cherub around 1790 and then later into the mass produced urn and willow markers found today.

These patterns developed, TROUT continues, despite the fact that the "artists" had no contact with each other and rarely saw examples of their compatriots' work.

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Instead, TROUT explains, "tombstone rubbers" went over the pattern in the same direction, and then with more strokes all in one direction removed from the tombstone and that is where the helium particle was stopped and detected.

"We are after: Nuclear energy levels of various kinds of matter."

Contributions from the research of more than 20 Michigan State University physicists were presented at San Francisco meeting.

- PHILLIP E. MILLER

To make a rubbing, TROUT explains, one needs a roll of masking tape, selection of large sheets of strong bond paper such as rice paper, a selection of colors in tempera, wax crayon or black India ink, black India ink is used by shoe cobblers for shoe blackening and a small brush.

"First, the stone should be cleaned by brushing it carefully, being sure not to damage the stone," TROUT says.

"Then, the paper should be taped to the tombstone over the area you intend to reproduce."

"Rub lightly to establish the pattern and then with more firm strokes all in the same direction go over the pattern again until the design stands out clearly on the paper."

"When finished the rubber should always make sure that all tape is removed from the tombstone and that the area is picked up," TROUT adds.

Part of the satisfaction in making a rubbing, he says, is in finding the tombstones and meeting people in the process.

TROUT, who has traveled extensively throughout the eastern part of the U.S. in search of cemeteries, says that most of the sites he has been to have been deserted and are up on hilltops where there are no roads.

Guided in Trout's collection and museum display are brass rubbings made in Cathedrals in the British Isles. The oldest one on display was made in St. Patrick's Cathedral and is dated 1572.
BULLETINS

AEBLESKIVERS! Tickets can now be purchased from members of Faculty Women's Association for the annual aebleskiver luncheon to be held at 11 a.m., Saturday, February 12. Proceeds provide scholarships for women students at MSU.


CHEMISTRY Five distinguished scientists will be visiting the Department of Chemistry during the next few months as part of a series initiated in 1970 under the department's Center of Excellence grant. Speakers include: L.B. Rogers, Purdue University, department's Center of Excellence grant. Speakers include: L.B. Rogers, Purdue University, Feb. 6-10; J.A. Berson, Yale University, March 6-10; J.A. Berson, Yale University, March 13-15; D. Cram, University of California at Los Angeles, April 17-19; and G. Eichhorn, Dept. of Health, Education, and Welfare, May 21-23.

CONFERENCES

Feb. 4-5 State Park Concessioners
Feb. 6-11 State Information Officers I
Feb. 7-9 Petroleum Jobbers Management Inst.
Feb. 7-9 Criminal Investigation Courses Part I
Feb. 7-11 Occupational Safety & Health
Feb. 8 School Boards & Administrators

EXHIBITIONS

Kresge Art Center
North Gallery: Contemporary paintings and prints from the Flint Institute of Arts.

SEMINARS

THURSDAY, FEBRUARY 3, 1972
The perspectives of policy makers and publicists. Subhish Kannappan and Kay Wilco, U. of Chicago, 7:30 p.m., Con Con Room, International Center (Asian Studies Center).

FRIDAY, FEBRUARY 4, 1972
Biological control of sugar cane moth-borer, Diaphania sacctiaralis in Barbados. Klaus Carl, Commonwealth Institute of Biological Control, Delemont, Switzerland, 3 p.m., 140 Natural Science (Entomology).
Cytochrome C: the oxidized and reduced structures of an ancient protein. R.E. Dickerson, California Institute of Technology, 4 p.m., 101 Biochemistry (Biochemistry).
Stream ecosystem structure and function. Kenneth W. Cummins, 11:30 a.m., 140 Natural Science (Zoology).

MONDAY, FEBRUARY 7, 1972
Waste Utilization Laboratory. J. Garrish, 3 p.m., 103 Anthony (Animal Husbantry).
Performance of dairy beef crosses. William Magee, 12:30 p.m., 126 Anthony (Dairy Science).
Cardiovascular effects of prostaglandins A1 in the dog. Janet Parker, 4 p.m., 216 Giltner (Physiology).

TUESDAY, FEBRUARY 8, 1972
Titanocene and some other new members of the Sandwich Club and their relation to nitrogen reduction. Hans Brüning, U. of Michigan, 4 p.m., 136 Chemistry (Chemistry).
Effect of stimulants on germination of spores of bacilla. Oleseni Tinouye, 4:10 p.m., 110 Anthony (Food Science & Human Nutrition).

ANTIQUE GROUP The Faculty Folk Antique Group will meet at 9:30 a.m., Tuesday, February 8. Mr. and Mrs. William Wallner will speak on "How to Identify Period Furniture" in their home at 5229 Park Lake Road.

CICERO A lecture on "Cicero: The Human Side" will be given by William C. McDermott at 8 p.m., Wednesday, Feb. 9, in the Captain's Room of the Union. The lecture is sponsored by the Romance Languages department.

BWC INSTITUTE The MSU Business Women's Club Institute will be held Tuesday and Wednesday, Feb. 8 and 9 in the Union. Following the theme of "Communication," Jack Bain will speak at 11:30 a.m. "Don't Take It For Granted," and Anne Garrison will conduct a workshop at 1:15 p.m. on "That Is Not What I Meant At All." On Wednesday, John Lewis will speak on the University Services Materials Management Division at 1:15 p.m. Registration will be held at 1 p.m. both days on the second floor concourse.

Feb. 9-10 Mich. Forestry & Parks
All conferences will be held in Kellogg Center unless otherwise noted.

State News
Photographers: 301 Student Services—The 8th Annual Military Pictures of the Year competition winners are now on view. The photographs have been on exhibition throughout the U.S., overseas military bases, and at National Press Photographers Association seminars.

Methods for quality assessment of wheat flour. Mark Uebersax, 4:10 p.m., 110 Anthony (Food Science & Human Nutrition).

The implications and impact of state assessment of mathematics achievement. Charles Johnson, Waterford Village School; Robert W. Scrivens; Bryce Shaw, Flint Public Schools, 4 p.m., 304A Wells (Mathematics).

Multivalence and the affinity of antibody. Fred Karush, U. of Pennsylvania, 304A Wells (Mathematics).

Bayesian classification. Connie Shapiro, U. of Michigan, 4:10 p.m., 405A Wells (Statistics & Probability).

WEDNESDAY, FEBRUARY 9, 1972
Principle of remote sensing. Axel L. Andersen, 4:10 p.m., 168 Plant Biology Lab (Botany and Plant Pathology).

Review of taxonomy research program. Roland Fischer, 7:30 p.m., 244 Natural Science (Entomology).

Vitamin A and the biosynthesis of glycoproteins. George Wolf, Massachusetts Institute of Technology, 4:10 p.m., 110 Anthony (Institute of Nutrition).

THURSDAY, FEBRUARY 10, 1972
Soviet Union and China and South Asia. Robert Sturges, 7:30 p.m., Con Con Room, International Center (Asian Studies Center).

Genetic defects of sphingolipid metabolism. C.C. Sweeley, 4 p.m., 101 Biochemistry (Biochemistry).

Modular forms in number theory. M. Knopp, 4 p.m., 140A Wells (Mathematics).


Study of the reaction. Paul T. Debevec, Princeton, 8 p.m., Cyclotron Seminar Room (Physics).

For general information about MSU, call 353-6700.
Calendar of Events

Friday, February 4, 1972

4 p.m. Women's swimming—MSU vs. U. of Michigan and Indiana. Women's IM Pool.

7:30 p.m. Gymnastics—MSU vs. Minnesota. Men's IM Sports Arena.

8 p.m. "U.F.O."—Probing the possibility of life existing on other planets, this program portrays stories of mysterious flying saucer encounters. Tickets at door. Abrams Planetarium.

8:15 p.m. Lecture-Concert Series—The Osipov Balalaika Orchestra with its 75 singers, dancers, and musicians, will feature the celebrated Bolshoi Opera Company and Bolshoi Ballet Auditorium.

8:15 p.m. "A Cry of Players"—This bawdy comedy by William Gibson, set in Elizabethan England, concerns the early life of Shakespeare. This University Theatre production is a season coupon book bonus. Cash sales at door. Arena Theatre.

8:15 p.m. Faculty recital—Elsa Ludewig Verdehr, clarinetist. Music Auditorium.

10 p.m. "U.F.O." (see above). Abrams.

Saturday, February 5, 1972

1:30 p.m. Gymnastics—MSU vs. Iowa. IM Sports Arena.

2 p.m. Track—MSU vs. Northwestern U. Jenison.

2:30 p.m. "U.F.O." (see Feb. 4). Abrams.

7:30 p.m. Wrestling—MSU vs. Oklahoma. IM Sports Arena.

8 p.m. World Travel Series—Norm Wakeham travels "From Palm Springs to Lake Louise." Auditorium.

7 p.m. Pony Pall. Livestock Pavilion.

8 p.m. "U.F.O." (see Feb. 4). Abrams.


10 p.m. "U.F.O." (see Feb. 4). Abrams.

Sunday, February 6, 1972

8 p.m. ASMSU Pop Entertainment—Canadian folksinger Gordon Lightfoot, known as a “collector of familiar treasures,” will perform. Tickets may be purchased at the Union Ticket Office. Auditorium.

8:15 p.m. Graduate recital—Susan Shane, violinist. Music Auditorium.


10 p.m. “U.F.O.” (see Feb. 4). Abrams.

8:15 p.m. “U.F.O.”—Probing the possibility of life existing on other planets, this program portrays stories of mysterious flying saucer encounters. Tickets at door. Abrams Planetarium.

5:30 p.m. "A Cry of Players."—This bawdy comedy by William Gibson, set in Elizabethan England, concerns the early life of Shakespeare. This University Theatre production is a season coupon book bonus. Cash sales at door. Arena Theatre.

5:30 p.m. Faculty recital—Elsa Ludewig Verdehr, clarinetist. Music Auditorium.

10 p.m. "U.F.O." (see Feb. 4). Abrams.

BULLETINS

SEMINARS ON AGING The third of a series of seminars on aging sponsored by the MSU Volunteer Bureau will be held at 7 p.m., Tuesday, Feb. 1 in Room 30 of the Union. Leo Haak will speak on "Retirement Roles and Activities."

SCHEDULE OF COURSES The 1972 spring term Schedule of Courses and Academic Handbook will be available for departmental use on February 4. Departmental representatives may pick up a supply in 64 Hannah Administration Bldg.

SHANGRI-LA All tickets have been sold for the Feb. 9 and 11 Scholarship Shangri-La luncheons, though a short waiting list will be kept by Mrs. William Magee (349-4524) for use in the event of cancellations. Sponsored by the Faculty Folk and Newcomers Club, the luncheons are given to raise funds for scholarships for women students at MSU. For those wishing to contribute directly to the fund, checks should be made out to Faculty Folk and sent to Mrs. Martin Bukovac, treasurer, 2786 Brentwood Ave., East Lansing.

NEWCOMERS The Newcomers Club and husbands will be attending the play "Joe Egg" at 8 p.m., Thursday, Feb. 17. Discussion and coffee will follow. Reservations for block seats must be made before Feb 4 by contacting Jean Cusick, 351-6114.

ART OPENING There will be an opening for two new exhibits at Krege Art Center from 2 to 5 p.m., Sunday, Feb. 6. Contemporary works from the Flint Institute of Arts and the prints of Jan Gelb and Minna Citron will be shown.

MID TERM GRADES Special midterm grade cards will be delivered to departmental offices on Friday, Feb. 4. The grading system is printed on the face of each class card. The Office of the Registrar will make a pickup on Friday, Feb. 11, after 9 a.m. Otherwise, cards must be returned to 130 Hannah Administration Bldg. no later than 11 a.m., Feb. 11. The returned cards will be redistributed on Monday, Feb. 14, to those who requested them. For information, call 5-9596.

*Information on MSU events may be submitted, for possible inclusion in the bulletin, 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.*