

Financial stress: A way of life since 1855

Where will we get the money?

Through the years that question has probably been voiced more frequently than any other around the nation's campuses. Repeatedly it has been posed amid great perplexity by the trustees, presidents and other top administrators of MSU during its 117 years.

A review of the University's historical documents can only lead to the conclusion that being short of funds for educational necessities has virtually been a way of life from the day MSU came into being.

First in a series of three stories.



MSU VERTICAL FILE

Born in adversity, what was then The Agricultural College of the State of Michigan almost immediately began moving from one financial crisis to another. The darkest days came in 1863 during the Civil War when it appeared that no funds were to come from the State Legislature. It was rumored that the college would almost certainly close, and most of the 60 students prepared to finish their higher education elsewhere. But somehow the institution survived and continued its slow growth.

More affluent years came later, but the periods of freedom from money worries were scattered and brief.

Evidence that financial woes are still lingering is contained in a headline ("MSU Still Under Financial Stress") in the March 1972 issue of the MSU Alumni Newsletter over a column written by President Wharton. In describing some of MSU's programs, Wharton noted the difficulties arising from a shortage of resources brought about because for the second straight year significant portions of the University appropriations were to be returned to the state treasury.

DEPENDENT TO A LARGE part on one source of revenue for operational and capital expenditures — the State Legislature — MSU has always been subjected to the uncertainties of tax resources, competition from other agencies for state funds, and the good humor of the lawmakers. Although MSU on the average has fared about as well as similar institutions in other states, and sometimes better, there has probably never been a year when as much money was appropriated as was thought necessary for all valid purposes.

Financially speaking, MSU's beginning in 1855 was not an auspicious one. It received a largess of \$56,320 from the sale of salt spring and swamp lands that had been previously granted by the State Legislature. That was all that was available to clear the forest site east of Lansing, build the first building to be called College Hall,

(Continued on page 4)

MSU News-Bulletin

Vol. 3, No. 24

Michigan State University

April 13, 1972

RECEIVED

APR 17 1972

REFERENCE DEPARTMENT
MICHIGAN STATE UNIVERSITY
LIBRARY

Two faculty organizations are in a race to get 30 percent for bargaining petition

It is now, apparently, a race for first.

Two organizations say they are close to receiving enough signatures from faculty authorizing a collective bargaining unit to call for a unionization election.

But the number of signatures required (30 percent of a defined unit) varies with the two organizations, because their defined units vary.

The MSU chapter of the American Association of University Professors (AAUP) claims to be about 60 signatures short of its goal of 30 percent of a unit that includes all persons who teach or do research 50 percent or more of their time, including all full- and part-time faculty, extension personnel, librarians, and counselors; also including faculty and researchers in the three medical colleges, and all department chairmen and directors of institutes and similar units.

The MSU Faculty Associates, an affiliate of the Michigan Education Association (MEA), claims to be about 50 signatures short of its goal of 30 percent of a unit which includes all full-time teaching and research faculty from professor through specialist, and all in those ranks who are half-time for three or more consecutive terms; plus nonacademic staff at nonsupervisory levels, including librarians, nonsupervisory directors of academic programs, artist in residence, counselors and academic advisers.

The MEA's proposed unit would exclude cooperative extension personnel who do not hold academic rank in an

academic unit; graduate assistants; research associates and postdoctoral fellows; divisional librarians; head coaches; visiting professors; adjunct faculty; clinical adjunct faculty; career military faculty; assistant, associate and department chairmen; directors of administrative units and deans; confidential employees; administrative - professional staff; and other executive and supervisory employees.

The MEA's proposed unit was tentatively agreed upon by

representatives of the central administration and the Michigan Employment Relations Commission (MERC) last month. At that time the AAUP had only enough signatures (about 10 percent) to qualify as an intervenor in any election.

But if the AAUP should obtain enough signatures, the question of unit definition would again have to go into hearing stages — first informally, and then, if agreement is not reached, into formal hearings.

If both groups receive 30 percent

signatures of their own defined units, it would become a matter of two contesting petitions being presented to MERC, and the unit would have to be defined before validity of the "30 percent" could be determined.

At any rate, if either group should get 30 percent of whatever unit is determined, it appears that there will be at least three choices on a unionization ballot — AAUP, MEA and no unit. Position on the ballot is drawn by lot, and

(Continued on page 4)



Inside . . .

- ... Sigma Xi winner, page 2
- ... Campus briefs, page 3
- ... Honors College, page 4
- ... Personnel's job, page 6

Chorus and orchestra to perform

Soloists soprano Suzanne Wernette, mezzo - soprano Cora Enman, tenor Truby Clayton and bass - baritone Lee E. Snook rehearse under conductor Gomer L. Jones, professor of music, for the Mozart "Mass in C Minor"

scheduled for 8:15 p.m. Sunday (April 16), in the Auditorium. The concert by the MSU Chorus and Orchestra of more than 300 is open to the public without charge.

Sigma Xi research award to Purchase

A scientist who helped develop the first vaccine that controls a form of cancer has won the University's 1972 Junior Sigma Xi Award for Meritorious Research.

Harvey Graham Purchase received his award last week in recognition of his comprehensive study of a form of leukemia known as Marek's disease — a cancer of chickens.

Purchase also recently won the Arthur S. Fleming Award as one of 10

outstanding men and women in the U.S. government during 1971. Purchase is an assistant professor of microbiology and public health, and a veterinary medical officer for the U.S. Department of Agriculture's Regional Poultry Research Laboratory on the campus.

His research has led to a safe and effective vaccine to control the disease that has been costing U.S. poultrymen more than \$200 million a year, and it has sparked new efforts in the study of human cancer.

According to the Sigma Xi awards committee, Purchase's research is a major scientific breakthrough because it represents the first time any vaccine has been found effective against a naturally occurring cancer. "Medical research scientists consider this development extremely important in current cancer research," a committee spokesman noted.

"The research done by Purchase and his colleagues provides a model for counterparts in human disease," said Philipp Gerhardt, chairman of microbiology and public health. "His work is so important that the National Cancer Institute has set up field stations in East Africa so that investigators from the U.S. and abroad can determine how Purchase's findings apply to the causes

and prevention of Burkitt's lymphoma, a comparable form of cancer in man."

Born in Livingstone, Northern Rhodesia, Purchase attended primary schools in Kenya and England and secondary school at Prince of Wales School, Nairobi. He received his B.S. degree from the University of Witwatersrand, Johannesburg, South Africa, and in 1959 graduated cum laude from the University of Pretoria, Onderstepoort, with a B.V.Sc. degree in veterinary science. In 1961 he named a member of the Royal College of Veterinary Surgeons.

Purchase came to the U.S. in 1961 and joined the staff at the Poultry Research Laboratory as a research veterinarian. He received an M.S. degree in 1965 and a Ph.D. degree in 1970 in microbiology and public health at MSU.

Science notes

China: The emphasis is on applied research

China favors research that has applications in sight rather than pure research with applications distant and hidden.

This was the observation of Chen Ning Yang who visited with physicists on the campus last week. The Nobel Laureate (physics, 1957) spent four weeks in China previous to President Nixon's visit.

"I think I enjoyed an advantage, compared with many recent visitors of China," he said, "since these are people I knew intimately before I left China."

Yang lived the first 23 years of his life in China.

"China today, undoubtedly in a very thorough way, is giving more emphasis to practical research than pure research," he said.

"Many of the research efforts in the Institute of Physiology have been redirected," Yang said. "They are more intimately amalgamated with the problems of Chinese society . . . (and) many of these problems become related to medical research."

"Purely theoretical work is not completely stopped, but there is no doubt that preference is given to those aspects of science which are more related to Chinese society."

The general Chinese attitude toward science, he said, is that it is good for mankind, and should be fostered.

ONE CONTRADICTION the Chinese recognize about their society is that, contrary to their spirit of egalitarianism, a specialism fosters a kind of elitism.

"There are sophisticated sciences that require early training of brilliant young people," Yang said, "and China is afraid that if it trains a tremendous number of these people without simultaneously injecting into them the idea of the prevailing Chinese social value judgments, there indeed will be an elite class."

He noted that China regards the suppression of leaders as "the most important effort at this moment. But, of course, we also know that China is busily trying to make computers and busily developing all kinds of industries which are very sophisticated. So China must feel the pressure, of the need, of highly trained sophisticated people to a large extent. How this contradiction will be resolved . . . we will have to see."

DURING A VIST with Premier Chou En - Lai, Yang was asked questions also common in America:

- * "How does a professor choose his own research work?"
- * "How much does a professor earn?"
- * "What is the situation of the blacks?"

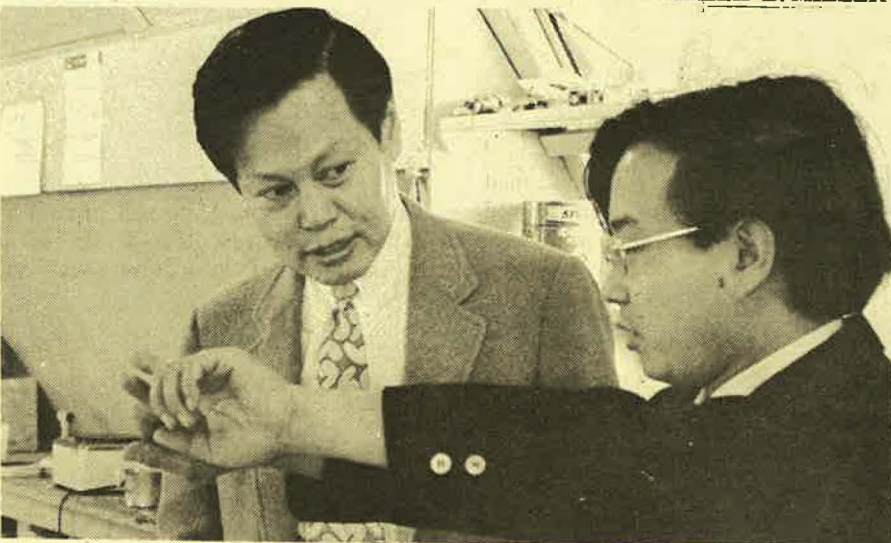
The Nobel Laureate said that the Chinese are very well informed about America, and that the Premier's questions were more for verification than for information.

One paper printed in China, with a circulation of five million, carries only foreign news. Yang saw in one a column by William Buckley, and items carried from UPI and AP.

He said that the drastic changes in Chinese society may be due to imposition of moral ideas upon the mental fabric of the various individuals.

"Individual behavior is an interaction between the individual's history and that of the society around him," Yang said. "If the society imposes a value judgment which is more in line with selflessness, then the individual behavior would shift in that direction."

— PHILLIP E. MILLER



Nobel Laureate C. N. Yang and MSU's K. Wendell Chen.

Human ecology symposium to explore consumer concerns

The College of Human Ecology will mark its 75th anniversary with an alumni convocation and nationwide "Consumer Symposium" April 20 - 22.

The symposium, "Building Better Communication Bridges," is designed to point up the role of the University in consumer affairs. National authorities from government, business, industry, universities and consumer organizations will appear.

President Wharton will be the major speaker at the reunion. Honorary alumni awards will be presented by the

University, and alumni awards by the college.

Topics for the symposium include: "The consumer in a product world; the consumer and his environment; eco-management; rights and recourses of the consumers; the university as an interface; and systems concepts applied to consumer problem-solving."

Sessions will be held in Kellogg Center and the Union. For more information contact the Kellogg Center Registration Desk, 355-4590.

History in sound 'The Babe' and hot dogs

(Actual recordings that detail this and other events are available in the National Voice Library on the fourth floor of the MSU Library. An appointment can be made by calling 355-5122.)

By G. ROBERT VINCENT
Curator, National Voice Library

Back in 1938, the banquet committee of the Radio and Newspaper Sportswriters called me at my sound and recording studio in Radio City, New York. A testimonial dinner was to be given that evening at the Commodore Hotel in honor of the Stevens family, which for many years held the concessions for hot dogs, Cracker Jacks and refreshments at most major league ball parks. I was asked to record the speeches and proceedings. That was long before the days of tape recorders, so I lugged big, heavy, cumbersome disc equipment to the Grand Ballroom.

One of the spectators watching as I set up the recording gear was Babe Ruth. He grinned and handed me a highball glass filled to the brim. We both drank to the Stevens boys.

Suspended from the banquet room ceiling was a monstrous hot dog, an emblem of the Stevens' profession. And when it was time for the after-dinner speeches, these few words were delivered by the Great Bambino:

"... You know, looking at that hot dog, I was just trying to think — it would take 50 years to grow something like that. Oh, in the old days I could put a pretty good dent into that thing. And I remember going 'way back years ago, when I broke into baseball. It was 26 years ago — which is a long time. . . I had a lot of



fun and out of it . . . I appreciate all my punishments and all my recreations, and everything I had out of baseball.

"... And I want to say one thing for the newspaper reporters: They've binged me, they've banged me and they've given me praise, but as someone said to me years ago, 'Babe, if they spell your name right, never regret it.'

"When I broke into baseball, there were very few sportswriters who are in baseball today. They came up after my day. I was just a young kid then. I had a lot of strength — I was 186 pounds then — and I enjoyed it, and I went out there, and I worked hard, and I think I deserved what I got out of it. And I want to say about the four Stevens boys — it has been a pleasure to be invited down here to attend their wonderful party, and I want to thank the reporters for remembering to give such a gorgeous party to them . . . Thank you."

Around the campus: A weekly review

Board to get procedures

The proposed interim grievance procedures will be presented to the Board of Trustees at its April meeting, President Wharton said after Tuesday's Academic Council meeting.

With less than an hour of debate, the Council approved Tuesday the interim grievance procedures proposed by the Ad Hoc Committee to Study Faculty Rights, Responsibilities and Grievance Procedures. The procedures were approved by the Elected Faculty Council last month.

The Council also accepted several amendments offered by Lawrence L. Boger, dean of agriculture, representing a subcommittee of the Administrative Group, which has been studying grievance procedures for several months.

Both Boger and E. Fred Carlisle, associate professor of English and chairman of the ad hoc committee, said the Boger amendments were intended to clarify and strengthen the procedures and would not alter the intent of the EFC approved document nor significantly change its substance.

One Boger amendment broadened the list of eligible grievants to include lecturers, assistant instructors, specialists and librarians. A further amendment from graduate student JoLynn Cunningham included research associates in that list.

Other amendments from Boger's group: Defined grievances more clearly, gave additional strength to the position of Faculty Grievance Official; removed specification that the FGO must be a faculty member, and shortened time limits on the procedures.

IN OTHER ACTION, the Council approve a motion concerning future motions of censure or reprimand. The new policy states that such a motion could be introduced only as a regular part of the Council agenda, not voted upon before a succeeding session of the Council, and "as soon as practicable" after introduction of such a motion, the secretary of the faculties would notify the individual named and invite him to present a statement in person at the next scheduled Council session.

The motion was debated considerably, with several substitute motions defeated, including one from Mark Rilling, associate professor of psychology, which asked that criteria for censure be studied by the Ad Hoc Committee to Study Faculty Rights, Responsibilities and Grievance Procedures.

A motion from Frederick Williams, professor of history — asking the University Committee on Academic Governance to study and report on legislation and structures for adjudication of alleged violations of all campus regulations and policies — was tabled.

A motion from Einar Hardin, professor of labor and industrial relations to restrict censure motions to gross violations of decorum at Council meetings was also defeated.

A move by Rilling early in the meeting to place on the agenda a move to rescind the Nov. 30 censure of Professor Bob Repas and Trustee Clair White was narrowly defeated, 40-37 with 4 abstentions.

Debate on a motion to postpone the election for student members-at-large of the Council was postponed until the May 2 Council meeting.

Game times moved up

Michigan State's three November home football games next fall will start at 1 p.m. E.S.T., rather than the usual 1:30 p.m. The games affected are those of Nov. 4 with Purdue, Nov. 11 with Ohio State and Nov. 25 with Northwestern.

"The idea," said Acting Athletic Director Burt Smith, "is to assure better daylight conditions on those late fall Saturdays, both for the games themselves and for fans starting homewards afterwards. Some long drawn out games can run almost to darkness when the starting time is 1:30 p.m."

Several Big Ten schools already have the same policy of starting November games earlier.

Dorm options expanded

MSU will offer a wider range of living options next fall, including a substantial increase in the limited visitation option, says Eldon R. Nonnamaker, dean of students.

Nonnamaker has received a report from a special housing options committee of students, residence hall staff and management. The changes are based on plans approved last year by the Board of Trustees.

The committee recommended that while the number of quiet houses remains the same, the number of limited visitation houses (where guests of the opposite sex are allowed in the hall living areas) be increased. So far, 26 percent of the incoming freshmen women and 19 percent of the men have asked for limited visitation.

More limited visitation houses will be set up in South Complex, Brody Complex, East Campus and in Cedar Woods and West Circle halls.

The committee also recommended expanding a modified version of the alternate floor option (now in several halls) to four more halls. Under the plan, students in Wilson and Akers halls could designate two floors in which men will live in one wing and women in the other wing, separated by a lobby. Adjoining doors are locked. A similar plan is set for the Brody Complex.

It is expected that the trend toward greater student choice in living arrangements will continue, and appropriate measures have been established to insure internal security in the halls.

Nonnamakersaid that a full review and evaluation of the living options program will be made next spring.

Agreement on athletics

Representatives of the University and the Coalition of Black Athletes jointly announced agreement on a series of "understandings and affirmative moves" for all athletes.

Jack Breslin, executive vice president, and Allen Smith of the coalition announced:

*A black academic adviser will be appointed in the athletic department.

*Athletes planning to return to the campus in the fall following the end of their eligibility may qualify for assistance under all financial aid programs, based on need, as would any other student. (Under Big Ten and NCAA rules, no athlete can have unearned aid after his eligibility is used, and only recently has the Big Ten permitted athletes to qualify for any kind of aid after eligibility.)

*A seven - member grievance board — of black athletes, coaches and members of the black faculty — will be formed immediately to hear unresolved grievances. The ombudsman will chair the group.

*Present tenders to black soccer players will be renewed and honored through their normal period of eligibility. (No further tenders will be offered in soccer after the 1972 season.)

*The University provides medical care for injuries to athletes injured or suffering illness during regular practice or the contest itself. It is not yet determined whether coverage for injuries or illnesses

unrelated to an individual's sport or presence at the University is merited or financially feasible.

*Two student athletes will be named to the screening committee for the new athletic director.

*MSU has already urged the use of more blacks to officiate Big Ten contests, and it now will recommend names of black basketball officials to be added to the conference roster (there is now one black basketball official).

Where to plug in

Where can women most effectively plug into the administration in order to insure equal treatment?

This was the big question asked at an open session of the steering committee for women Tuesday (April 11) morning. The 17 women comprising the steering committee were appointed by President Wharton to design and recommend a permanent structure which would address itself to the needs and concerns of women at MSU.

Women from the University at large participating in the session charged the steering committee members with drafting several proposals which could serve as focal points for discussion.

Mary Kay Scullion, graduate student and chairman of the steering committee, explained that the group will be addressing itself to: Women-oriented fields and areas; minority concerns; student concerns; and employment practices.

These topics are scheduled for discussion under rotating chairmen on alternate Wednesdays and Thursdays at 6:30 p.m. in the Kellogg Center. The next meeting will be Wednesday (April 19).

Once a month starting at 3 p.m. Sunday (April 30) in the Kellogg Center, the steering committee will also meet with women from throughout the University community.

Ag lecturer is named

Joseph L. Sax, University of Michigan professor of law and author of the Michigan Environmental Protection Act, will present MSU's Distinguished Lecture in Agriculture and Natural Resources May 4 and 5.

Sax will give a seminar on the "Cost of Environmental Litigation," May 4, 2 to 3:30 p.m. in Room 158 Natural Resources.

At 8 that evening, he will present a public lecture on "Michigan's Environmental Protection Act" in Fairchild Theatre.

Friday (May 5) morning he will hold a press conference in Room 132, Hubbard Hall, to release his study of the Environmental Protection Act, the so-called citizens' suit law and the first law of its kind in the U.S. Then, at 10 a.m., he will hold a seminar on "Environmental Regulation" in the same room.

On other campuses

BLACK STUDIES AT PURDUE. Pres. Arthur G. Hansen of Purdue University has reported that Purdue will hire a qualified person to lead a black studies program in its School of Humanities, Social Science and Education. Hansen noted that the number of black faculty members has increased from four in 1970 to 13 this year, and black administrators have increased from five to 28 over the same period. Purdue now enrolls 532 black undergraduates and 99 black graduate students. "We are dealing with human lives — not a numbers game," Hansen said. "These students should be brought to Purdue with every chance for their success."

JUMP IN THE CAR POOL. With the beginning of its spring quarter this month, Wayne State University has implemented a plan to offer reserved parking spaces to students who join car pools. Under the "Eco Parking" plan, a large amount of space in a WSU parking structure will be reserved for cars with two or more persons. Drivers without passengers will be waved away from the reserved portion, even if there are empty spaces. The plan is designed to ease a parking squeeze at Wayne State and to save money that would be needed to build additional parking facilities.

EDWARDS RESIGNS. James Don Edwards, former chairman of accounting and financial administration at MSU and dean of the School of Business Administration at the University of Minnesota, has submitted his resignation less than a year after he began his Minnesota post. Edwards, whose resignation is effective June 30, said he was resigning because of what he called funding limitations in the school and a lack of emphasis given the school by the university.

Honors College: Some myths challenged

Students who earn really high grades early get into Honors College and don't have to declare a major and can take whatever courses they want — true?
Not true.

In the first place, a grade average is not the sole requirement for Honors College membership. Students do have majors; they must fulfill the University's general requirements, as for general education; and they receive close advising from Honors College (HC) personnel.

But there is flexibility. For example, under a new experimental program, freshman students, after consulting with HC advisers, have been able to take American or European intellectual history in place of American thought and language or humanities — but the general education requirement is still met.

FRESHMEN ARE normally admitted to Honors College as "designates" on the basis of SAT scores, high school grade - point averages and standings in National Merit Scholarship competition.

But the HC is now in its second year of the experimental freshman program whereby freshmen for the first time are being taken directly into HC. They are admitted in categories of varying levels of the three basic criteria, plus one category of minority students. The students themselves do not know into which category they are placed. They are afforded all benefits of full HC membership.

"It makes sense to meet them at the door," HC director Frank Blackington says, "so we can give some clear attention to helping them clarify their own aspirations, and to put them into work at levels that tend to fit them better than the more standard curricular arrangements."

After the first year of the experiment, it was found that freshman membership appeared to help hold students in the University that first year. This was probably because of the closer identification with a relatively small unit, an advising and referral program "that tends to get at problems more rapidly than we were able to do before," Blackington says, and because the freshmen had programs especially designed for them.

Sometimes students have so many talents that they are not ready to focus in on one major, Blackington says. So close advising may result, according to student needs and desires, in new or double majors, as with students interested in math and philosophy, or music and theater.

Scott Vaughn, assistant director of Honors College, describes the advising function as student - centered, rather than having the academic adviser serve as an "allocator" of courses. Students may set their own criteria on what sort of program they desire, although sometimes HC staff find students who know their fields well but have paid little attention to the University as a whole. HC staff "try to fill in the gaps," Vaughn says. All student programs are reviewed annually.

The students do experiment. A sophomore HC member interested in experimental psychology, for example, was allowed to bypass the basics and enter into senior and even graduate level courses, where he could be more challenged, more stimulated.

That becomes a major thrust — the challenge — rather than grade - point survival, because in the process the student is gambling his grade - point. By taking a more difficult course he may get a lower grade than he might have received in a lower-level, more basic course.

FRESHMEN HAVE LITTLE knowledge about the Honors College, Blackington says, so work begins at orientation programs, where HC personnel explain away some of the myths about the program. Those who have not declared majors begin advising with HC personnel at orientation. The HC staff continues to give supplemental advising to students who return for it — and as many as 70 percent may return.

Bargaining race . . .

(Concluded from page 1)

even if one group is an "intervenor," this is not indicated on the ballot.

MEANWHILE, WAYNE STATE University is in the midst of balloting on a run - off election for collective bargaining, and Eastern Michigan University recently completed an election, the results of which will require a run - off within a month or so.

In Wayne State's election last month, the American Federation of Teachers (AFT) polled 544 of 1,280 votes cast and the AAUP polled 331. At Eastern Michigan, results were 203 for no agent, 173 for the AFT, 155 for AAUP and 107 for MEA, with 30 challenged ballots. Since no one received a majority, a run -

off election will include the top vote getter — "no" — and the second choice, which could be AAUP or AFT, after challenged ballots are decided.

The main point of contention between the AAUP and MEA at MSU is the question of inclusion of department heads in the bargaining unit. AAUP contends that exclusion of department chairmen represents a "fragmentation of the most significant functional unit within the University." In a letter to faculty last month, the MSU chapter said that "we feel that the department chairman is a colleague rather than an administrator . . . not only in a philosophical sense, but in a realistic sense."

(The AAUP has collected 730 cards, nearly half of them in the last month. Chapter President Sigmund Nosow, professor of labor and industrial relations, said the recent surge of cards is due primarily to that letter.)

The MEA's definition of a unit — which was tentatively agreed upon with University officials — resembles the definition for Wayne State and Eastern Michigan approved by MERC after nearly a year of hearings in their cases. Both Wayne and Eastern exclude department chairmen from their units.

— BEVERLY TWITCHELL

Some students at orientation raise substantive questions about the University and society; some are survival oriented and need to be reoriented, according to Vaughn.

The orientation / advising function was furthered by implementing a special freshman course, offered through Justin Morrill College, whose purpose was to develop general awareness and perspectives of life - style and career alternatives.

BLACKINGTON EXPRESSES "deep concern for broad undergraduate education. He finds frustrating "the persistent myth that the Honors College operation is 'do your own thing without regard to any of the defining characteristics of an undergraduate education'."

The summer orientation program and the advising focus in the college have done much within the HC population, at least, to explode that myth, Blackington says. Honors College is not interested in students who are not committed to broad education, regardless of their grade - points, he says.

Admission criteria are under continual review by the HC staff. And the freshman experiment has provided some data for evaluating various criteria, particularly data on noncognitive characteristics to determine whether there is correlation between any of these characteristics (demographic, attitudinal) and academic success.

And Vaughn points out that HC's flexibility is instrumental, not an end in itself.

— BEVERLY TWITCHELL

Financial stress . . .

(Concluded from page 1)

employ the first faculty and pay for all the other starting costs that were to accumulate during the two years before classes were opened.

For the first year of classes, in 1857, the legislative purse strings loosened somewhat, with \$40,000 as the first appropriation for operating expenses but this was for a two - year span.

This money disappeared as quickly as start - up expenses mounted. When the first president, Joseph R. Williams, reported for duty in late spring of 1857, he found that the board of governors had not only spent the land money of \$56,000, but also \$14,000 of the \$40,000 appropriation that was to last for two years. This left Williams with only about \$13,000 a year to run the college. By the end of 1858 the appropriation was exhausted and the college had amassed debts of some \$13,000.

Many people in those days believed that once established the college could maintain itself from the farm operation and would need no supplementary funds. This delusion in part led to an even further reduced two - year legislative budget of \$37,500 in 1859.

SO DESPERATE WAS the financial situation that the basic economic philosophy of the institution was changed. Today's concept of an education made available to any capable young person regardless of his economic status is in no way a contemporary innovation. This was the basic philosophy of the nation's first agricultural college. The only cost to students initially was modest payment for meals in the boarding house. Education was free so that even the poorest could attend. But in 1859 the board of governors abandoned this practice because of financial distress. Reluctantly, they levied a charge of 2 cents a day for "attendance" and 3 cents a day for the use of room and furniture.

The imposition of stringent economies because of the meager appropriation in 1859 triggered a backlash that was almost disastrous for the next few years. So tight were the college purse strings that at the close of 1860 one - fourth of the appropriation remained unspent. This did not go unnoticed by the legislators as the 1861 session convened. They not only recaptured that sum but they reduced the grant from 1861 to a mere \$6,500, fortunately for a one - year period.

This lesson in finance probably was not lost on the president and the board, and perhaps on other colleges as well. From then on the slogan could only have been "spend it all or you'll lose it."

Scanty annual appropriations of \$9,000 to \$10,000 were forthcoming for the next three years, but were boosted to \$15,000 in 1865. In the meantime a few hundred dollars a year was being realized from the sale of some additional salt spring lands.

SALARIES PAID TO the president and faculty in 1859 indicated the hard times. Pres. Louis R. Fisk received \$1,500 annually, while professors made \$1,000. The University of Michigan's president fared better at \$2,500. Several years later the college president's salary was boosted to \$3,000 and professors to \$2,000.

The first capital funds came in 1869 when \$30,000 was appropriated for "special purposes" including additional buildings.

In 1870 the income of the college from all sources was less than \$40,000, and the year closed with a deficit of \$6,000. Even after 15 years, the college could only be described as young, poor and small. A handful of professors had to teach many subjects and President Abbot called the roll of students after chapel each morning. Funds became so short that the board, yielding to pressure from the legislature, reduced professors' salaries to \$1,800, partially nullifying the increase given in prior years.

— W. LOWELL TREASTER

Knight newsman to speak April 26

James McCartney, Washington correspondent for Knight Newspapers, Inc., will deliver a public lecture Wednesday, April 26, at 1:50 p.m. in 105 S. Kedzie.

McCartney, a specialist in national security matters, is a native of East

Lansing, a 1949 graduate of MSU and former public information officer for Continuing Education here. He will speak on "Anonymity Incorporated: The Washington 'News Backgrounder.'" The lecture is sponsored by the School of Journalism.

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.

Taking the University to the problems

The new director of public safety for the nearby City of Jackson doesn't plan to have a permanent office staff.

Instead, William G. Hegarty will draw upon faculty colleagues to assist in the discovery and solution of problems that pertain to police and fire department administration.

Hegarty is an assistant professor of criminal justice and begins this week, as Jackson public safety director.

At the same time, he will continue to teach a course in administrative theory of criminal justice here during the spring term.

Hegarty says, "I, as a member of a university faculty, envision only part of my responsibility as an educator to be experienced in the classroom."

He considers his plan to involve the University in work with the City of Jackson a unique opportunity for direct involvement of MSU in urban problems.

"Rather than have a permanent office staff, I will make use of teams of researchers from the University and the Jackson fire and police departments," he says. "Undoubtedly, this arrangement of personnel will add to

the administrative efficiency of both organizations.

"Depending upon the nature of the research project or management problem," Hegarty says, "the teams may involve expertise in the areas of psychology, sociology, business, management, criminal justice, public administration and the Center for Urban Affairs."

Achievements

FLOYD G. PARKER, professor of continuing education and education, was a member of the jury for the 1972 American Association of School Administrators Exhibition of School Architecture. The jury will select entries for an exhibit during the group's meeting next month in Atlantic City.

RICHARD G. PFISTER, associate professor of agricultural engineering, has been appointed by Gov. Milliken to a four-year term on the State Board of Safety Compliance and Appeals. Pfister will be chairman of the board.

CARL H. GROSS, professor and chairman of secondary education and curriculum, has been elected vice president and president-elect of the Society of Professors of Education, now in its 70th anniversary.

WILLIAM LAZER, professor of marketing and transportation administration, served recently as a National Science Foundation Visiting Scientist at Transylvania College, Lexington, Ky. He discussed future economic trends.

JANET A. WESSEL, professor of health, physical education and recreation, has been appointed to the

"Selected graduate students will also be involved in a number of projects," he says. "They will be able to earn course credit while experiencing the practicality of public safety administration."

The task of making the most effective use of limited resources in the area of public safety is common to many small - to medium - sized cities, says Hagerty.

He intends to study and eventually improve Jackson's police and fire department general organization, pay scales, recruitment practices, personnel deployment practices, training, promotions and discipline. He says the areas of courts and corrections may also be looked into.

The relationship of the University to the city works both ways, according to Hegarty. He plans to involve governmental personnel from the City of Jackson as resource persons for his course this term.

"It's an experiment in institutional cooperation," says Hagerty. "Hopefully, the results of this endeavor will provide encouragement to other University units. Any corrective response to urban problems must include a workable relationship between a municipality and the University community."

—BILL BETTS

'Chicano Renaissance' is topic

Tomas Rivera, professor of romance languages at the University of Texas, will speak on "The Chicano Renaissance and the Humanization of the Southwest" tonight (April 13) at 8 p.m. in 158 Natural Resources Building.

Rivera, who is a poet and a prize-winning novelist, is being sponsored by the Department of Romance Languages, the College of Arts and Letters and the Chicano office of the Center for Urban Affairs.

Physical Education and Recreation Advisory Group of the National Advisory Committee on Handicapped Children. It is part of the U.S. Office of Education.

STANLEY P. WRONSKI, professor of secondary education and curriculum, has been named to a three-year term on the executive committee of the National Council for the Social Studies.

JULIAN W. SMITH, professor of administration and higher education, has won the Luther H. Gulick Award from the American Association for Health, Physical Education and Recreation. One of the association's highest honors, it cites "distinguished service in health, physical education and recreation."

Books

The first English - language textbook on tourism - written by ROBERT W. MC INTOSH, professor of tourism in hotel, restaurant and institutional management - has been published by Grid, Inc. "Tourism: Principles, Practices, Philosophies," is designed as a textbook and as a guide for businesses that cater to tourists.

CIC to study press costs

A study of Big Ten university presses will be made by the Committee on Institutional Cooperation (CIC), a consortium of Big Ten schools and the University of Chicago.

Supported by a Carnegie Corporation grant, the study will concentrate on ways to reduce costs for press operations through cooperative activity. The former director of the MIT Press, Carroll G. Bowen, will conduct the study.

Big Ten presses collectively publish more than 300 scholarly titles annually. The CIC study could lead to such savings as joint purchasing of paper and printing, cooperative advertising and marketing of books, and centralized warehousing and shipping.

NSF grant to emphasize ecology research

It's called Ecosystem Design and Management, but don't be misled by the title. It's much more complicated and much more important to world ecology than it sounds.

A grant of \$900,000 was announced in Washington this week by the National Science Foundation (NSF) for a two-year extension of MSU research into ecosystem design management.

The grant will be presented to the Board of Trustees for approval at its next meeting.

The project began two years ago under a \$650,000 NSF grant.

"We're developing a new understanding of the problem of ecology, and it's much deeper than the American public things," says Herman E. Koenig, project director and chairman of the electrical engineering and systems science.

IT'S NOT AS simple as picking up bottles and newspapers for recycling," adds Koenig. "Living within the constraints of the earth's ecological systems is going to mean a major social, economic and political readjustment for man. It's part of becoming a mature industrialized nation."

Project codirector William E. Cooper, an associate professor of zoology, explains that the research is designed to come up with techniques for dealing with environmental problems.

"We spent six months discussing and

identifying the scope of the problem," he says. "The next year under the first NSF grant was spent getting scientists together to learn how to talk to each other and understand how their own areas of scientific expertise relate to the problem."

Research directions for the future were also defined during this period, Cooper adds.

"Now we will begin to expand our conceptual models of ecology to include the impact of man," he says.

Some 45 scientists in electrical engineering, systems science, zoology, chemical engineering, entomology, botany, microbiology, soil science, agricultural economics, communications, resource development, economy and mathematics - are involved.

"We are, in fact, developing a new science through our research," reports Cooper.

Koenig explains that the basis of the research concept is that all materials for human existence come from the rural landscape.

"In the long run, rural land must produce all materials and absorb all waste," he says.

Presently the material flow is all toward the cities where waste disposal is becoming an increasingly difficult problem.

For this reason, Cooper says, society

is materially unstable, and he calls cities "parasites" on the rural landscape in a material sense.

"What we are trying to do is identify the limits of our use of the environment and then learn what constructive courses of action are available to us," says Koenig.

He and Cooper caution that there is so single model which will provide all the answers for man's use of the environment.

Instead, many models will be developed by many scientists within the framework of the basic material and social alternatives. The models will be used as tools for decision makers - legislators, planners, developers, etc., to determine man's use of his environment.

Both Koenig and Cooper recognize that educating decision makers and the general public to the concept they are developing will be a major, yet vital, task.

THEY SEE MSU AS A logical center of the early phases of this research because of its resources and orientation in agriculture. This, they say, is a natural extension of the land - grant philosophy.

Future research into ecosystem designed management is too big for any one university, says Cooper. It will expand as understanding of the concept expands, and the science of design and

management of ecosystems grows, he adds.

The next two years of NSF - funded research at MSU will see scientists examining some working ecosystems.

Koenig says research will include a study of high - density beef feedlots and their effect on the environment with subsequent development of a computer - based simulation model.

A study of power plant site design will be made with the cooperation of Consumers Power Company, Koenig adds. This will include studies of plant size and location, heat output and waste disposal.

In addition, the problem of insect pest control in agriculture will be studied with focus on the cereal leaf beetle and apple mite in Michigan.

The methods and effects of spreading waste products on agricultural land will be studied using the MSU swine waste disposal system as a research tool.

Finally, there will be a study of freshwater lakes and streams to determine the long - and short - term impact of thermal and material inputs.

"The entire ecology system is a collection of ecological processes which are all coupled together," says Cooper. "All of the various processes of man are coupled by a flow of materials. That is the common denominator we are working with."

—BILL BETTS

Hiring procedures become more complex

When the University needs to fill a nonacademic job vacancy, there's much more to it than hanging out a "Help Wanted" sign.

New and tighter laws and regulations — designed in part to insure affirmative action as a means of erasing inequities — have meant that this and other institutions face a growing need to justify their hiring procedures.

And while MSU is made up of many separate employers across the campus, a single agency — the Personnel Center — is held accountable for every employment action that takes place.

This accountability, plus the growing complexities of hiring, underscores the need for a single set of procedures administered by a central hiring facility, says Gerald F. O'Connor, associate director of personnel.

The University's Personnel Center is more than a clearing house for job-seekers, O'Connor notes. It maintains contact with some 20 agencies and organizations in an effort to identify and recruit prospective employees. Those organizations include ones that work specifically with minority groups, such as the NAACP and Cristo Rey in Lansing. The Personnel Center recently hired Jimmy Robinson as an employment specialist to plan and coordinate its equal opportunity efforts.

To help insure equal opportunity, a number of federal, state and local offices can and do conduct periodic checks of MSU's hiring procedures to verify equal opportunity in employment.

SOME 13,000 persons inquired about jobs on the campus during 1970-71, and 3,400 completed and submitted applications. MSU hired 1,600 full-time nonacademic employees.

Besides interviewing and processing applicants, Personnel Center is becoming more involved in employment counseling, notes Lamott Bates, an assistant director. Efforts in the latter area are for both prospective and present employees.

On the campus itself, personnel has begun posting openings in administrative - professional, clerical - technical and hourly jobs for employees interested in upgrading their

classifications. Response to the posting has been heavy, O'Connor says.

Bates notes that employees are now able to contact personnel directly — without having to go through their

supervisors — and express interest in transfer. The Personnel Center, he says, will try to accommodate those interested in advancement or in changing jobs.

O'CONNOR AND BATES point out while the final hiring decision rests with each department and unit, several steps need to be followed in the hiring process:

- * Personnel Center must be notified of openings so that they can be posted and so that they can begin screening and referring candidates.

- * Hiring units should make sure that applicants are considered fairly, and that equal opportunity guidelines are followed.

- * Employers should not make a commitment to hire before checking with the Personnel Center. For example, a new employee needs to pass a physical before officially starting work.

- * To make sure that equal employment guidelines are observed, individual departments should not offer employment without going through the Personnel Center.

— GENE RIETFORIS

Policy statement affirms employment guidelines

The recently circulated "MSU Nonacademic Employment Policy" is an attempt to enhance — not usurp — the hiring rights and responsibilities of campus departments and units.

And it is designed to assure applicants that they'll be given fair and equal consideration for any University job they seek.

The policy is actually a reaffirmation of procedures that already exist, says C. Keith Groty, assistant vice president for personnel and employee relations.

"The hiring process is a continuum," Groty notes, "from the day a person's application is secured to the day a person is hired. We want to make sure that all applicants are treated equally when they are being considered for a job."

Citing the University's obligations — legal and moral — as an equal opportunity employer, the policy affirms the commitment to provide "equitable consideration for all persons in their employment pursuits, without regard to race, color, religion, ethnic origin, sex or age."

Groty stresses that failure to give equal opportunity in the process of seeking the best employee creates "dissatisfaction and high turnover."

And there is a legal consideration, too: Funding agencies such as the U.S. Department of Health, Education and Welfare can withdraw support from a university where any hiring discrimination exists.

Groty emphasizes that there is no evidence now of abuses occurring in hiring practices. "But we want people to understand what the system involves, so abuses won't result simply from failure to know what the hiring policy is."

AMONG ITS SPECIFIC provisions, the policy states that "no commitment for employment is to be made or implied, written or oral, without prior permission from the personnel office." And it stresses that "departments should not do their own reference checking without approval of the personnel office."

The former stipulation is designed not only to insure that a person being considered for a job has been processed by Personnel Center, but to encourage campus employers to make use of the center's hiring specialists and resources in personnel.

And the provision for reference-checking is to make sure that all applicants' references will be checked equally, and that such checks will not be duplicated.

Adds Groty: "We simply want assurance that what is checked is pertinent to the job for which a person is being considered. We don't want to put the shackles on anyone. There is always a door open to departments to check further with a candidate's references."

Keeping physically fit in the Galapagos

At age 67, Margaret P. Thorp, a librarian in the science division of the MSU Library, can probably teach us all a thing or two about physical fitness.

Mrs. Thorp recently spent a few weeks with a group sailing and hiking through the Galapagos Islands — "roughing it," she said.

"The volcanic rock tore up the hiking boots of some friends," she said, "but mine held up." Miss Marillyn Owens, a librarian in the cataloging department, was also along on the trip.

Last year for Mrs. Thorp it was Afganistan. There, she spent about 10 days back-packing in the higher altitudes of the Hindu Kush Mountains. The year before that, she and a group spent a month back-packing 250 miles in Nepal and the Himalayas.

Mrs. Thorp described the scenery in the Galapagos Islands as beautiful, and the wildlife as magnificent and friendly. Among those who came out to greet her and her group during their stay were the booby (a bird of the islands), giant sea turtles, "handsome" iguanas and, of course, Darwin's finches.

"One of the highlights of the trip was getting to meet Charles Darwin's great grandson," said Mrs. Thorp, "who came in as we were getting ready to leave."

Mrs. Thorp, an MSU alumna, received her B.S. in 1925. She received an M.S. degree from the University of Chicago in 1929 and an M.A. in 1961 from Western Michigan University. She has also done graduate work at the University of Michigan, the University of Illinois and Columbia University.

Mrs. Thorp joined the MSU staff in 1961. She said that until recently she had not given much thought to the subject of retirement.

"I'm sure I'll find enough to keep me busy when I do," she said.

— CHARLES BEADY



Margaret Thorp: Not ready to slow down.

Benita Valente to perform

The internationally acclaimed soprano, Benita Valente, will be heard in concert as part of the Chamber Music Series at 8:15 p.m. Tuesday (April 18) in Fairchild Theatre. Advance tickets are at the Union Ticket Office.

Miss Valente will be assisted by pianist Thomas Grubb as well as two soloists from the MSU music faculty. Douglas Campbell will be heard on French horn in Schubert's "Auf dem Strom" for soprano, horn and piano. Elsa Ludwig Verdehr, clarinetist, will assist Miss Valente in "Der Hirt auf dem Felsen" ("Shepherd on the Rock"), a narrative story based on a poem by Wilhelm Mueller.

Miss Valente will also perform songs by Claude Debussy, including his "Clair de Lune," as well as works by Gabriel Faure, Joseph Haydn and Fernando Obradors.

U-Club opens its doors

All University employees are now eligible for membership in the University Club, reminds H. John Carew, club membership chairman. The expanded eligibility resulted from a change in bylaws of the former Faculty Club.

Current dues are \$25 a month, plus a \$5 monthly minimum food and beverage charge. The initial deposit is \$225. Persons below the rank of associate professor or A-P-5 can defer the payment for five years or until they reach those ranks. Anyone is eligible to pay the deposit on a monthly basis. Persons who leave the club can get their deposit refunded in June following their resignation.

Carew, professor and chairman of horticulture, reports that club membership is now at about 1,000. He says that a limited number of associate memberships — for persons not connected directly with MSU — is available.

Full details are available from Carew at 355-5191 or from the club manager at 351-4844.

BULLETINS

STEERING COMM.

There will be a meeting of the Steering Committee of the Faculty at 3 p.m., Wednesday, April 19, in 443A Administration Building to set the agenda for the Academic Council meeting of May 2.

BOTANICAL CLUB

The Michigan Botanical Club will hold its annual state meeting from 1:30 to 3 p.m., Sunday, April 16, in Room 35 of the Union. Fred Case will speak on "Michigan Orchids."

ROTC

Applications for Army ROTC Two-year Program will be taken through April 28. For information call 5-1913 or stop by 1 Demonstration Hall.

NEWCOMERS

The Newcomers Club will meet at 8 p.m., Thursday, April 19, in the exhibition hall of Kresge Art Center. Members of the Faculty Folk are invited at 8:30 p.m. to tour the Center. Election and installation of new officers will be held at this meeting.

EXHIBITIONS

Kresge Art Center

Entrance Gallery, North Gallery (through April 23): Faculty Exhibition of works in various media by staff artists.

Beal Garden

Early spring bulbs have started to bloom in several sunny locations.

Hidden Lake Gardens

Tipton, Michigan

Plants geographically diverse and varied in climatic adaptation are on display in the Tropical Dome, the Arid Dome and the Temperate House. Open daily 8 a.m. until sundown.

CONFERENCES

April 17- May 24 24th Annual Course in Housekeeping Mgmt.

April 18-19 28th Annual Dairy Fieldmen's Conference

April 19-20 Michigan Chapter American Academy of Family Physicians

April 19-23 National Forum of Chairmen of Parks & Recreation Depts.

April 20 Seminar for Large Animal Practitioners—Equine Reproduction, Vet. Clinic

April 20-21 Building Officials Conference

April 20-22 Workshop in Advanced Salesmanship

April 20-22 College of Human Ecology Consumer Symposium & Alumni Reunion

April 23-26 The Community: A Base for Undergraduate Medical Education, Traverse City

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.

SEMINARS

THURSDAY, APRIL 13, 1972

Structure studies in tin and antimony. **Elizabeth Baranger**, M.I.T., 8 p.m., Cyclotron Seminar Room (Physics)

FRIDAY, APRIL 14, 1972

Casework with the separated parent. **Sally Palmer**, London, Ontario, 2 p.m., 555 Baker (Social Work & Canadian-American Studies).

MONDAY, APRIL 17, 1972

Gel electrophoresis of high molecular weight DNA. **Dennis Flint**, 4:10 p.m., 101 Biochemistry (AEC Plant Research Lab).

Biological problems of aging. **Bernard Strehler**, U. of Southern California, 4:10 p.m., 136 Chemistry (Biophysics).

The projected wonderful properties of ghiral grown compounds. **Donald J. Cram**, 4 p.m., 138 Chemistry (Chemistry).

Toward high levels of performance in problem solving programs: A case study. **Edward A. Feigenbaum**, Stanford U., 8 p.m., Chrysler Auditorium, North Campus, U. of Michigan, Ann Arbor (MSU-UM Computer Science).

The animal industry in Ecuador. **Kim Wilson**, 12:30 p.m., 126 Anthony (Dairy Science).

Recent economic development in Cuba. **Carmelo Mesa-Lago**, U. of Pittsburgh, 7:30 p.m., 3 Marshall (Economic Development).

Electrophysiological responses to taste stimuli in the mud puppy (*Necturus*). **David Samanen**, 4 p.m., 216 Giltner (Physiology).

TUESDAY, APRIL 18, 1972

Zwitterious vs. radical pairs in the opening of substituted cyclopropanes. **J. Cram**, 3 p.m., 138 Chemistry (Chemistry).

On-line computer controlled assembly lines at Oldsmobile. **Jim Smith**, Oldsmobile, Lansing, 7:30 p.m., 102B Wells (Computer Science).

Nutritional status of older women. **Eleanor Schlenker**, 12:30 p.m., 102 Human Ecology (Food Science & Human Nutrition).

Water vapor sorption by dry milk—A review. **Masanobu Koupake**, 4:10 p.m., 110 Anthony (Food Science & Human Nutrition).

Design parameters in a system for removing surface moisture from blueberries. **Jeff Mowry**, 4:10 p.m., 110 Anthony (Food Science & Human Nutrition).

Virulence of gonococci. **W.D. Sawyer**, Rockefeller Foundation, Bangkok, Thailand, 4:10 p.m., 146 Giltner (Microbiology & Public Health).

Random effect model; non-parametric case II. **Z. Govindarajulu**, U. of Kentucky and U. of Michigan, 4:10 p.m., 405A Wells (Statistics & Probability).

WEDNESDAY, APRIL 19, 1972

Orthomolecular medicine. **Linus Pauling**, Nobel laureate, 4 p.m., 108B Wells (MSU Section of the American Chemical & the Renaud Foundation).

The function of structural and non-structural proteins in the assembly of T₄ phage tail fibers. **Robert C. Dickson**, California Institute of Technology, 4 p.m., 138 Chemistry (Biophysics).

Generalized Lagrange multipliers in dynamic programming. **Kamelesh Banerjee**, 2 p.m., 106 Eppley (Management).

Platelet adhesiveness. **Lillian Abadeer**, 4:10 p.m., 346 Giltner (Pathology).

THURSDAY, APRIL 20, 1972

Polyspheron description of atomic nuclei. **Linus Pauling**, Nobel laureate, 1:30 p.m., 138 Chemistry (MSU Section of the American Chemical & the Renaud Foundation).

Population studies of ring-necked pheasants yielding evidences of genetic changes in wariness behavior. **George Petrides**, 1:30 p.m., 221 Natural Resources (Fisheries & Wildlife).

Characterizing simple groups. **Warren Wong**, Notre Dame U., 4:10 p.m., 304A Wells (Mathematics).

Preview of the Washington APS meeting. **Cyclotron Laboratory Staff**, 3:30 p.m., Cyclotron Seminar Room (Physics).

(p,γ) Reactions with polarized protons. **S.S. Hanna**, Stanford U., 8 p.m., Cyclotron Seminar Room (Physics).

FRIDAY, APRIL 21, 1972

Abnormal hemoglobin molecules in relation to disease. **Linus Pauling**, Nobel laureate, 4 p.m., 108B Wells (MSU Section of the American Chemical & the Renaud Foundation).

Comparative electrophysiological studies of invertebrate hearts. **Ralph A. Pax**, 3 p.m., 204 Natural Science (Zoology).

Lewis Carroll on collective decision-making. **Duncan Black**, 3:30 p.m., 301 Agriculture (Agricultural Economics).

MICHIGAN STATE UNIVERSITY

Calendar of Events

Friday, April 14, 1972

- 2 p.m. Baseball—Doubleheader with Illinois. John Kobs Field.
- 8 p.m. World Travel Series—Don Cooper explores the "Mountain West." Auditorium.
- 8:30 p.m. "The Search: Still It Moves"—With a unique set, life-size puppets, film, abstract lighting projections and live players, Frank Elmer's presentation attempts to show the evolution of Galileo's theory of the universe as well as his vulnerability as a man in the face of the Inquisition. Abrams Planetarium.

Saturday, April 15, 1972

- 1 p.m. Baseball—Doubleheader with Purdue. John Kobs Field.
- 8 p.m. World Travel Series—Don Cooper explores the "Mountain West." Auditorium.
- 8:15 p.m. Graduate recital—Violinist Louise Hohmeyer will perform works by Beethoven, J.S. Bach, Chausson and Sinding. Music Auditorium.
- 8:30 p.m. "The Search: Still It Moves" (see April 14). Abrams Planetarium.

Sunday, April 16, 1972

- 4 p.m. "The Search: Still It Moves" (see April 14). Abrams Planetarium.
- 8:15 p.m. Music—The MSU Chorus and Orchestra, conducted by Gomer L. Jones, will perform Mozart's "Mass in C Minor." The concert by the 300-member chorus and orchestra is open to the public without charge. Auditorium.
- 8:30 p.m. "The Search: Still It Moves" (see April 14). Abrams Planetarium.

Monday, April 17, 1972

- 8:15 p.m. Graduate recital—Gertrude Huisman, mezzo-soprano, will perform. Music Auditorium.
- 8:15 p.m. Lecture-Concert Series—Subscription Series "B" presents "An Entertainment for Elizabeth." Produced by the New York Pro Musica, the cast of 24 presents the poetry, songs,

music and dance which made the Elizabethan court the wonder of its age. Richly designed costumes and authentic renaissance choreography add to the spectacle. Auditorium.

Tuesday, April 18, 1972

- 12 p.m. University Club luncheon—American Universities Field Staff lecturer Louis Dupree will speak on "Afghanistan Today."
- 1 p.m. Golf—MSU vs. Ferris State. Forest Akers Course.
- 3 p.m. Tennis—MSU vs. Wayne State. Varsity Tennis Courts.
- 8:15 p.m. Chamber Music Series—Soprano Benita Valenté will appear in concert with pianist Thomas Grubb and two soloists from the MSU music faculty. Since her European debut in 1962, she has appeared as soloist with that continent's top orchestras, opera companies and festivals. Fairchild Theatre.

Wednesday, April 19, 1972

- 1 p.m. Golf—MSU vs. Central Michigan. Forest Akers Course.

Friday, April 21, 1972

- 10 a.m. Board of Trustees meeting.
- 8 p.m. "The Last Question"—This new science fiction spectacular in the sky theatre was written and narrated by Isaac Asimov. Abrams Planetarium.
- 8:15 p.m. Graduate recital—Anita Hopkins, clarinetist, will perform. Music Auditorium.
- 10 p.m. "The Last Question" (see above). Abrams Planetarium.

Saturday, April 22, 1972

- 2:30 p.m. "The Last Question" (see April 21). Abrams Planetarium.
- 8 p.m. World Travel Series—Walter Dodson leads travelers through Israel. Auditorium.
- 8 p.m. "The Last Question" (see April 21). Abrams Planetarium.
- 10 p.m. "The Last Question" (see April 21). Abrams Planetarium.

BULLETINS

FACULTY FOLK

Faculty Folk will meet on Friday, April 14 at 12:45 at Abrams Planetarium for "A Journey Through the Universe." The program will be followed by a reception given by Mrs. Clifton R. Wharton, Jr. at Cowles House.

SOVIET FILM

The color film "Sadko," with Russian dialogue and English subtitles, will be shown at 7:30 p.m., Monday, April 17, in 104B Wells. There is no charge for admission. The film is sponsored by the Russian and East European Studies Program.

LINUS PAULING

Linus Pauling, the only winner of two Nobel prizes, will speak on "Vitamin C and the Common Cold" at 8 p.m., Thursday, April 20, in the Auditorium. Sponsored on campus by the MSU Section of the American Chemical Society and the Renaud Foundation, Pauling won the 1954 Nobel prize in chemistry and the 1962 Nobel peace prize.

TOMAS RIVERA

Tomas Rivera, professor of romance languages at the U. of Texas will speak on "The Chicano Renaissance and the Humanization of the Southwest" at 8 p.m., Thursday, April 13, in 158 Natural Resources. A poet and a prize-winning novelist, Rivera is being sponsored by the Department of Romance Languages, the College of Arts and Letters and the Center for Urban Affairs.

EXTENSION WIVES

The April 21 Extension Wives tour of Beekman Center has been postponed until 9:30 a.m., Thursday, April 27. Phone Mrs. Robert L. Maddex, 339-8112 for reservations or information.

HAFT TEPE

The Central Michigan Archaeological Society will present an illustrated public lecture at 8 p.m., Monday, April 17, in the Main Gallery of Kresge Art Center. Ezat O. Negahban of the U. of Tehran, Iran, will discuss "Haft Tepe, an Elamite Capital."

PUBLIC WORKERS

Sam Zagoria, director of the Labor-Management Relations Service of the U.S. Conference of Mayors, National League of Cities, and National Association of Counties, will speak on "Public Workers and Public Unions" at 8 p.m., Tuesday, April 18, in Union Parlor C. His talk is sponsored by the Industrial Relations Research Association.

GRAD WRITING

An advanced writing course designed specifically for doctoral candidates is being offered this term by the School for Advanced Graduate Studies. The course, which carries no credit and requires no fee, will be taught by Herman Struck. Beginning April 20, classes will meet each Thursday from 7 to 9 p.m. for six weeks. Interested students may obtain application forms from Mrs. Wickham in 143 Snyder or by calling 3-3853. Deadline for submitting forms is April 17. For information call 3-0758 or 3-3853.

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.