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MSU News - Bulletin

Vol. 4, No. 29

Michigan State University

May 17, 1973



-Photo by Dick Wesley

Honorary degree recipients named

Two business executives and an educational psychologist will receive honorary degrees at spring term commencement ceremonies June 10 in Spartan Stadium.

Also receiving an honorary will be commencement speaker Walter Cronkite. (See MSU News - Bulletin, May 10.)

Receiving honorary doctor of laws degrees will be Robert E. Brooker, retired board chairman of Marcor, Inc., and Montgomery Ward & Co., and Coy G. Eklund, an MSU alumnus who is the new president of the Equitable Life Assurance Society.

Kenneth B. Clark, an educational psychologist now specializing in the study of the inner city and its effects on people and schools, will receive an honorary doctor of science degree.

Brooker's long business career includes executive jobs at Firestone Tire and Rubber Company, Sears, Roebuck and Company, and Whirlpool Corporation. He left the presidency of Whirlpool in 1961 to become president of Montgomery Ward.

He led changes at Montgomery Ward that recaptured the company's growth and profits, and in 1968 he executed a merger with Container Corporation of America to create Marcor, Inc.

Brooker now serves as chairman of the executive committees of Marcor, Inc., and has been active in civic affairs, both nationally and in his home city of Chicago. He was named by President Nixon in 1971 as chairman of the National Business Council for Consumer Affairs.

(Continued on page 2)

MSU scientists elected to posts

MSU scientists were elected to two out of six presidential offices at the recent annual meeting of the Federation of American Societies for Experimental Biology.

The federation meeting was the largest scientific meeting - 23,000 participants - to assemble in the nation this year.

The two presidents - elect are MSU researchers Theodore M. Brody and Olaf Mickelsen.

Named as president - elect of the American Society for Pharmacology and Experimental Therapeutics (ASPET), Brody is professor and chairman of MSU's Department of Pharmacology.

ASPET is the largest and most prestigious pharmacological society in the world. Its membership includes a half dozen Nobel laureates.

Brody is on the editorial boards of "The Journal of Pharmacology and Experimental Therapeutics" and "Research Communications in Chemical Pharmacology and Pathology." He also serves on the scientific advisory board



Theodore Brody



Olaf Mickelsen

of the Pharmaceutical Manufacturers Association.

As a consultant, Brody has advised on pharmacological matters for the National Institutes of Health, the Food and Drug Administration and the Random House Dictionary of the English Language.

In 1955, he won ASPET's prestigious John Jacob Abel Award for his studies on the mechanisms of drug action at the cellular level.

Brody begins his ASPET presidency this July.

Mickelsen, Professor in the Department of Food Science and Human Nutrition, is the other president

of a society of the American federation of Scientists: effective this month, he is president of the American Institute of Nutrition.

Last week, Mickelsen won the Senior Sigma Xi Award for Meritorious Research, an honor bestowed by other MSU scientists. He was cited for his work on obesity and the possible role of a wheat factor in regulating kidney function.

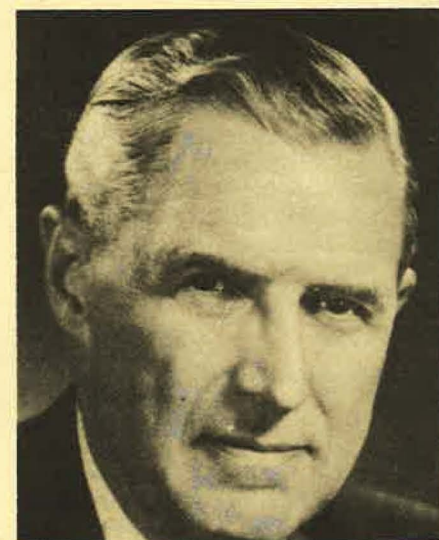
Mickelsen is author of "Nutrition Science and You." The MSU nutritionist served in editorial capacities for several scientific periodicals, and has authored the monthly column "The Training Table," for "Tennis" magazine. He has also published numerous articles on his nutrition research, including articles on effects of nutrition on health and weight control.

During World War II, he helped with studies on the K - Ration and diets for victims of starvation.

Mickelsen has been with the University since 1962. He now holds appointments in the Departments of Biochemistry, Human Development and Food Science and Human Nutrition.



Coy G. Eklund



Robert E. Brooker

U can have excellence, equality

Striving for excellence and maintaining human equality do not have to create a conflict - either among individuals or within universities, President Clifton R. Wharton, Jr., said last Friday. "As educators, our techniques and viewpoints may shift as we deal with different kinds of groups," he said, but the obligation toward properly defined excellence "must not waver."

He said that those traits making up excellence - achievement, growth and wisdom - are more likely to enhance human equality than to erode it.

President Wharton made his comments in a speech at spring initiation ceremonies of the MSU chapter of Phi Beta Kappa. He received an honorary membership in the society as did two members of the MSU faculty: Robert E. Brown, professor of

history, and Fritz Herzog, professor of mathematics.

President Wharton pointed out that "it is not particularly difficult to provide educational experiences to the proven or intellectually outstanding student."

He said, "It is a far greater challenge to assume responsibility for a student body that differs not only according to cultural and economic background, but also according to academic preparation and inherent ability, a student body which more accurately reflects the diversity of inherent talent in the wider society."

"A truly excellent pluralistic university does not merely accept its diverse constituency, it responds to that constituency by providing members of every legitimate constituency with appropriate avenues for the fullest possible realization of their inherent intellectual potential."

President Wharton said that proponents of excellence tend to fear "the obliteration of individuality, distinctions and rewards based upon merit," while egalitarians fear that absolute or inappropriate standards may "perpetuate social and economic elites."

He listed several basic "dimensions of excellence" for colleges and universities: a wide range of pursuits, a "commitment to intellectual inquiry within an atmosphere of academic freedom," a "union of innovation and long - standing values" and a reflection of the "unity and interdependence of all human knowledge."

But to this list he added another characteristic, "a gauge unique to the pluralistic university" - a university's capacity to stimulate "self - expansion" among individuals who come from a diverse array of abilities and backgrounds.

Friday edition

Next week only, the News Bulletin will publish on Friday rather than Thursday. Deadline for submission of material will continue to be Tuesday noon.

MSU wins the 'Ivy,' a cherished 'Oscar'

MSU is the winner of an "academy award" of sorts.

It's not an "Oscar" but an "Ivy" and it holds as much esteem as the movie award to its winners.

The Ivy has been bestowed on the Department of Dormitories and Food Services by the publication "Institutions / Volume Feeding," the leading trade magazine of the profession.

According to the magazine, an Ivy is awarded for efficient operation, staff attitude, quality, food, service, cleanliness, dollar volume, design, decor, and creativity. "But the Ivy winner is the embodiment of 'something more,'" according to the magazine.

"For the Ivy winner is not so much a place, as it is an individual. The restaurant, university, hotel or hospital facility functions as it does because of the attitude, character, philosophy, dedication and initiative of the person behind it.

"The Ivys are unique if for no other reason than that the voters are food service executives, colleagues, competitors and peers of the winners. All are more sharply critical than most patrons of the operation. They look for and vote according to the most stringent standards."

Accepting the award for the department on Sunday in Chicago will be Lyle Thorburn, manager of dormitories and food service, and Robert Underwood, residence halls manager.

Thorburn said he is pleased that MSU was selected as one of the ten 1973 Ivy Winners. "This is an award that reflects the excellent team effort of the department. It's not an award for one member of the department, but for every individual in the department," he said.

He added that the award means so much because it is conferred by colleagues.

"Other institutions have told us for years that we are a leader in food and

dormitory services, and now we have been finally recognized as a leader," Thorburn said.

Thorburn has been with the University for 18 years. He began as a 4-H agent in the Cooperative Extension Service and served for 16 years as manager of food services. He has held his present position for the past three years.

Underwood has been with the University for 3 years, serving as food service supervisor of Brody Hall before assuming his current position.

Underwood said that the MSU operation is the biggest operation to be honored. "We aren't self-conscious, but we don't brag about our operation," he said.

"The award is an honor because it recognizes us as having a pretty good operation."

Food service at MSU is a \$14 million a year operation. This includes serving up to 65,000 meals per day in 25 dining rooms and 16 snack bars.

The lodging operation is a \$12 million - plus operation per year (including apartment rent). This includes 9,000 rooms and a total of 17,882 beds.

Underwood said that one of the reasons MSU can provide excellent service is the auxiliary services offered within the department. This includes the laundry, the food stores (where meat cutting is done) and the food preparation center (where salad and vegetable items are prepared).

Thorburn said that MSU has a highly decentralized management system.

"Each unit manager is responsible for every aspect of food service and lodging in his hall. They are, in general, very creative and enterprising. Each one has his own ideas and implements his own innovations, particularly in special events, such as buffets, banana split parties, that kind of thing.

"There's a good deal of competition among the managers and word gets



Lyle Thorburn and Robert Underwood

around among the students as to which hall has the best food or is the most fun. It keeps the managers on their toes."

As a 1973 Ivy Winner, MSU ranks with such current and former winners as Win Schuler's in Marshall, Mamma Leone's in New York City, Arizona State University, The Vineyards in Southfield, Michigan, and Tony's in St. Louis.

MSU has been recognized in the past

for its excellence in food service.

The University received an "Award of Excellence" in 1968 for service and achievement in food service for schools and colleges by "Food Management" magazine, and a 1972 top ten menu award by the National Restaurant Association. Additionally, the department was featured in the March issue of "Food Management."

- SANDRA DALKA

Checking teaching

The teacher opens his biology book and the students all follow suit. Then for the next hour he reads, almost word for word, from the book, his droning voice lulling the students into a trance. "This just isn't good enough. This isn't what science is about," says David Cohen somewhat impatiently. "We act completely contrarily to developing the utmost capability of children," he says in his Australian accent.

Cohen is a professor of education at MacQuarie University in North Ryde, Australia, and he lives in Turrumurra.

Both are just outside Sydney, and he can't understand why the room clerk here can't spell Turrumurra.

He's not new in the United States - he was here at MSU from 1962 through 1964 working on his doctoral degrees - and many memories come back as he revisits the campus. But he can't help talking about Australia and Sydney which has "the most beautiful harbor in the world." He has been away only three weeks.

He's excited about his work at MacQuarie, but he wishes some other educators and scientists would join him in finding ways to measure if teaching objectives are being met.

"It's been in our 'too hard basket' for too long," he says.

Cohen believes science classes should teach students the ability to solve problems, which inherently involves learning to sense problems. He also believes that if you don't have the instruments to test how well teachers are meeting those objectives, the objectives won't be met.

In a seminar last week at the Science and Mathematics Teaching Center, Cohen told of his own work in measuring creativity and identifying scientific attitudes.

"If you can get the kids doing some speculating, some inventing of ideas, then we can help you measure these," he said.

Letters

Touche!

To the editor:

After a decade of struggling to obtain an art library for MSU - one of the very few major universities which has been without one - art historians on campus are delighted to learn from the MSU News - Bulletin (April 26) that these efforts now make more easily accessible to the academic community "information on the lives and loves of artists like Pablo Picasso, Vincent Van Gogh, and Leonardo da Vinci." We look forward to a similar article on the science library and its collection of books on the lives and loves of Johannes Kepler, Gregor Mendel, and Enrico Fermi.

In the meantime, prospective users of the art library should be informed that the 25,000 volumes on the history of art and architecture are being temporarily stored on shelves in the ordinary way, as the giant coffee table has not arrived.

Joan Smith
Associate professor

... Honorary degrees

(Concluded from page 1)

Eklunk, a 1939 graduate of MSU, joined the Equitable Life Assurance Society as an agent in 1938.

Following military service during World War II, he became assistant agency manager of The Equitable's Michigan Agency and in 1947 was appointed manager for a new agency in Detroit.

Eklund was elected vice president and assistant to the president of the company in 1959, became a member of the firm's board of directors in 1965 and executive vice president in 1969. He was elevated to the presidency in March.

He serves on the boards of the Salk Institute for Biological Studies and of Americans for Indian Opportunity. He is a past winner of MSU's Distinguished Alumni Award.

Clark currently serves as distinguished professor of psychology at the City University of New York and as president of the Metropolitan Applied Research Center (MARC) in New York.

MARC is a nonprofit organization designed to provide aid and counsel to inner - city residents - primarily disadvantaged blacks and other minorities defined as "powerless."

He joined the then City College of New York in 1942 as a staff psychologist and became professor in 1960. He has written numerous books on urban affairs and education for the disadvantaged.

Clark's work and influence played a major role in the historic 1954 Supreme Court decision that outlawed segregation in public schools.

Achievements

GERALD MILLER, professor of communication, ERWIN BETTINGHAUS, professor and chairman of communication, and LAWRENCE SARBAUGH, assistant dean in the College of Communication Arts, led section presentations at a meeting of the Central States Speech association in Minneapolis.

CHRISTOPHER SOWER, professor of sociology, was recently elected president of the Michigan Sociological Association for 1973-74.

ROWLAND PIERSON, director of the Counseling Center, was recently elected to the board of directors of the International Association of Counseling

Services, a new association of counseling agencies that is affiliated with the 20 - year - old American Personnel and Guidance Association. The 300 - member association was founded in 1972 to evaluate and accredit both profit and nonprofit counseling agencies throughout the United States and Canada and to provide the public with reliable information about reputable counseling services.

WILLIAM A. MEHRENS, professor of education, has been named editor of "Measurement and Evaluation in Guidance," a quarterly journal published by a division of the American Personnel and Guidance Association.

MSU News - Bulletin

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Editorial offices: Rooms 314 and 315, Linton Hall, Michigan State University, East Lansing 48823. Phone: 355-2285.

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

Around the campus: A summary

Sewage plant grant

Environment effects of recycling sewage plant waste water will be intensively researched through a \$326,000 grant to MSU from the Rockefeller Foundation.

The grant, announced Monday by Milton E. Muelder, vice president for research development, will fund the research for which a \$2.2 million facility that includes lakes, wells and irrigation equipment is being built at MSU.

"We will have the world's finest facility for the study of waste water reclamation and nutrient recycling," said Muelder.

"With the support of the Rockefeller Foundation, we expect to mount a research project that will match the quality of the facility."

When the project is completed in August, about two million gallons of waste water from the East Lansing sewage plant will be piped daily to the site.

As water flows through the lakes, impurities will be removed so that water in the fourth and final lake will be pure enough for fishing and other recreational purposes.

The facilities have been designed to allow MSU's Institute of Water Research (IWR) to monitor the effects of the project on the environment of the 500-acre area.

Specifically, researchers will use the Rockefeller grant, which is expected to be approved by the MSU Board of Trustees at its May 25 meeting, to study:

*Whether the water in the final lake is really free of disease-causing germs, including the most elusive viruses.

*Chemistry of the water, particularly the amounts of nitrates that it contains as it leaves each lake and the cycling of nitrates from water to plants to soil.

*Hydrology, what happens to the water table when the amount of water in the area is doubled (perhaps even tripled).

"Similar types of facilities for recycling waste water are being tried or proposed by a number of cities," said Robert C. Ball, director of IWR.

"The important point about this project is that it is so designed to gain the data we need to determine whether or not it is really a good system and under what circumstances it should be used."

The waste water to be piped to the lakes will be taken from the approximately 10 million gallons that flow daily into the Red Cedar River from the East Lansing sewage plant.

This waste water would normally be considered "safe" in terms of disease-causing germs. However, it contains many nutrients, such as nitrates and phosphorus, which stimulate growth of water weeds that, in turn, choke out other forms of aquatic life.

In the MSU series of lakes, however, the waste water chemicals will be taken up by aquatic plants which will be harvested and fed to livestock or used to fertilize farm fields. Water from the lakes will also be used in spray irrigation projects.

Water and nitrates that trickle down to the water table underlying the area then will be monitored by means of a series of 50 wells drilled to varying depths and strategically located around the 500-acre plot.

Construction is being paid for with the aid of funds from the state, the federal government and the Ford, Kresge and Rockefeller Foundations. The project is headed by Howard A. Tanner, director of natural resources and assistant director of IWR with the support of Robert C. Ball, director, and other IWR staff.

SLIR Library

Its users include faculty and graduate students, labor lawyers, and personnel managers. Its resources range from collective bargaining contracts to fair employment practice guidelines.

"It" is the School of Labor and Industrial Relations Library.

"One of our chief purposes is to serve MSU faculty and students engaged in teaching and research," says Martha Jane Soltow, SLIR librarian.

But she lists examples of the library's collections that would also be of interest to those off the campus representing both labor and management:

*An extensive collection of labor agreements, emphasizing those in Michigan, and including many in the public sector.

*Proceedings of labor union conventions.

*Information concerning rules and regulations on nondiscrimination in employment.

*An extensive collection of titles concerning women as workers.

*Some 10 reports issued regularly by the Bureau

of National Affairs, Inc.'s Labor Information Services.

*"How to" articles and pamphlets for personnel managers.

*Publications by such organizations as the U.S. Chamber of Commerce and the American Management Association.

Mrs. Soltow cites the example of a company in a small city near Lansing that wanted information to guide it in its community relations work. "Our library could offer them several pamphlets on community relations," she says.

The library was created about 15 years ago, shortly after the School of Labor and Industrial Relations was established. It is located in the main University Library.

Mrs. Soltow has been librarian since 1961. She previously served as head of corporation records at the Harvard University Business School.

'Microclimate'

Some of the unusual beauty of MSU's campus derives from the fact that its microclimate is an entire zone warmer than the surrounding area.

This microclimate, due in part to heat radiation and windbreak provided by campus buildings, makes it possible to cultivate trees and plants normally impossible in the area, according to George Parmalee, curator of MSU's Beal Gardens and campus woody plants.

Shelter, plus radiation from masonry buildings, streets and walkways makes the campus five to ten degrees warmer than nearby territory, he told the campus planners meeting recently in Kellogg Center.

Parmalee said that MSU campus planners, in their interest in multipurpose planting — landscaping, as well as providing setting for teaching, research, and display of ornamentals — modify some environmental factors to make it possible to take advantage of a wider variety of planting sites.

These changes, he said, primarily involve changing soil to compensate for disturbance resulting from heavy compaction, cutting and filling in connection with construction, and providing quick runoff of rainwater.

Program honored

A program to help city, village and township officials with the Michigan Uniform Governmental Accounting System has earned MSU an award for creativity in adult education.

The award recognizing the uniqueness and service of the Michigan Governmental Accounting Program which was created by MSU's Institute for Community Development was presented by the Adult Education Association of Michigan recently during its annual meeting in Ann Arbor.

More than 2,000 clerks, treasurers, bookkeepers and accountants have participated in the ongoing program which was developed jointly with the Michigan Association of Counties, Michigan Municipal League, Michigan Townships Association and Michigan Department of Treasury.

Students turned away

Only about half of the applicants for admission to the School of Criminal Justice are being accepted for enrollment in September.

Arthur F. Brandstatter, school director, said increasing awareness of the crime problem and growing financial support from Washington for criminal justice academic programs are responsible for the continuing heavy demand for enrollment.

"We will not have room for more than 88 or 89 new students," Brandstatter said, "if we are to maintain a high quality of education and training."

Some 200 applications have been received, he said. Selection of those accepted was based on grades and answers provided to questionnaires dealing with career goals, attitudes and other factors. Notices have been sent to all applicants.

Graduates of the school in 1972-73, including the summer, will total about 300, Brandstatter said. In winter quarter there were 649 juniors and seniors and 258 freshmen and sophomores enrolled.

Psychologists return

The 25th anniversary of the founding of the University's Psychological Clinic and Training Program will be marked at Kellogg Center Friday and Saturday (May 18-19).

Twenty-three doctoral graduates, including four women, will come to the campus to attend five sessions at which they will give papers on changes in academic and professional concepts and procedures since 1948. All sessions will be held at Kellogg Center.

Albert I. Rabin, professor of psychology and director of the clinic from 1948 to 1961, will be chairman of the opening session Friday at 9:30 a.m.

Guests will be welcomed by Clarence L. Winder, dean of the College of Social Science; Lawrence I. O'Kelly, chairman of psychology; and Dozier W. Thornton, associate professor of psychology.

Other faculty presiding at sessions will be Robert A. Zucker, current director of the clinic; and psychology professors Bertram P. Karon, Bill L. Kell, and Lucy R. Ferguson.

"During the 25 years," Rabin said, "the faculty has grown from about 20 to almost 65. Four women graduates are coming, but now nearly half our graduates are women."

"We see the anniversary meeting as an opportunity to get feedback from the profession on how concepts have changed over the years. Most are practicing, some are teaching at universities across the country."

Among the 23 topics slated for discussion are: attitude patterns among applied and academic psychologists toward professional issues, an ecological model for practicing clinicians, issues in the interface of law and psychology, the creation of meaning through body action, implications of the Women's Movement for clinical training, and the future of family therapy training in university psychology.

Pygmy skunks

Pygmy skunks are not only small, striped and odiferous if angered, they are kind of cute.

Rollin Baker, director of the Museum, and his staff members captured four of them last summer during a zoological expedition on the western coast of Mexico.

According to Baker, a professor of zoology, the skunks are the first of their kind held in captivity. He and his staff are studying their eating, breeding and general living habits.

"We've been trying to get them to reproduce since we captured them last year," said Baker. "Now that one of them is pregnant, we are all sitting around like expectant fathers waiting for the big moment," he added.

Meanwhile Baker and his staff are also trying to determine whether these skunks undergo delayed implantation like skunks found in the U.S.

"Delayed implantation," Baker explained, "involves a fertilized egg which remains quiescent until later hormonal activity triggers embryonic development. This hormonal activity may take weeks or months and results in the female carrying her young a long time."

"Because of this delay, skunks in the U.S. breed once a year," according to Baker.

Because they are small and have more enemies than the larger U.S. skunks, Baker believes that the pygmy skunks breed more than once a year.

One fact became readily apparent, Baker reported. When a tissue culture was taken to determine their chromosome count — undeodorized skunks will be skunks!

Emery dies

Walter B. Emery, internationally known educator and authority on broadcast law, rules and responsibilities, died in Amherst, Mass. of a heart attack May 9. He was 66.

Emery was a professor in the television and radio department from 1957 to 1968.

At the time of his death, Emery was serving the University of Massachusetts as a professor in the speech and communications department. He was completing a term as a visiting professor from Ohio State University where he was director of the communications area in the College of Social and Behavioral Sciences.

New engineering opportunities...

... For women ...

Among engineers, some MSU women had come a long way 30 years ago. In 1943, four applied for admission and were enrolled in the freshman class.

The survival rate, however, wasn't high. One left in her freshman year. Two left in sophomore and junior years.

The long survivor was the first woman graduate of the College of Engineering.

"Looking back at those years," Jane (Mitoray) Treves, chemical engineering, 1947, said, "I must admit frankly that there was very little encouragement. Grades were not the problem."

She became a research engineer, then a group leader in organic research for a St. Louis, Mo., chemical company. Later she went the way of many young career women, into marriage and child-rearing and part-time employment in her field. She added translation of Russian scientific literature. Her husband is a geology professor in Nebraska and she has two sons in elementary school.

Since her graduation in 1947, another 40 women have received MSU engineering degrees. They report a variety of occupations: a technical analyst in industrial and consumer business for an oil company, an associate director of a computer center and assistant professor in computer science, a researcher in automotive chassis design methods, associate systems analyst, bridge designer, road designer, and others.

94 Women Enrolled

At the start of the current academic year, the engineering enrollment of 94 women, at all class levels, includes about half (45) in computer science. Another 26 are no-preference engineering freshmen who have not yet decided on their field.

Other women in engineering include: civil engineering, seven; chemical engineering, seven; mechanical engineering, four; electrical engineering, two; systems science, two; and one in metallurgy, mechanics and materials science.

Among those who have graduated in recent years, reports of being well received in professional fields are mixed with news of some male astonishment. Others feel that attitudes will continue to change, favorably, over time in regard to women as persons, as individuals and as professionals. Women's attitudes about themselves and their career possibilities also are expected to continue changing, in the direction of broader career openings.

Those still in the University report good summer job prospects. A chemical engineering junior said she has had six offers so far; a senior in computer science said she had seven offers. Others have choices to make too, despite the current tight economy.

Society of Women Engineers

Susan Bugher, an MSU graduate in civil engineering in 1966 and a practicing engineer in Lansing (doing bridge design), is adviser to the MSU Chapter of the Society of Women Engineers.

"Unlike the situation some years back," she said, "the major 'woman's problem' now is deciding you want to enter the 'male' field of engineering, since women engineers still account for only .84 per cent of all engineers."

"Once in, assuming you have an aptitude for math and science and the visual ability to see relationships between things, you will be judged on your performance."

"After the initial shock wears off, women engineers are well accepted in the profession. Currently, possibly because of equal opportunity laws and affirmative action programs, companies are competing to hire the women

graduates at the top of the salary scale for all graduates in all fields."

The remaining dilemma for women engineers - about careers and marriage and children - is the dilemma of all career women, said Mrs. Bugher. But women engineers at least are well paid and can better afford the kind of child care they want.

A graduate in mechanical engineering, Karen (Heffner) Beekman, 1965, did auto design research in Detroit for three years before marrying and having two children.

"Mechanical engineering is wide open to women, with a variety of jobs and companies involved," she said.

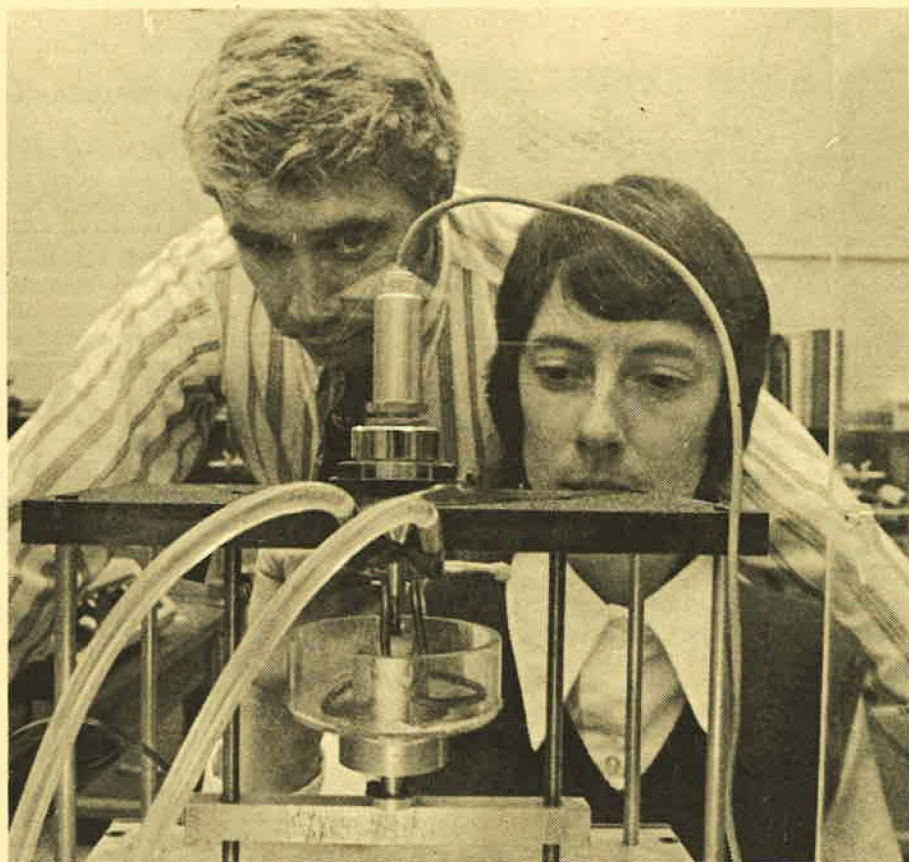
A graduate in chemical engineering, Diane Carlson, 1971, now working with the Michigan Department of Health on pollution controls, says opportunities are numerous in her field too, but adds that an engineering career is both challenging and a lot of work.

Several women graduates in civil engineering are working in the State Highway Department. All report being well received in the profession, and treated as equals.

One said she got into engineering because after high school, "Nobody told me I couldn't."

Another identified a hazard for women starting in engineering, and any other professional field:

"Women are not yet used to leadership roles," she said, "but we can learn that too."



—Photo by Dick Wesley

Graduate student Ann Irwin and Professor Robert Little examine the femur of a rat prior to submitting it to weight stress in the device shown. Miss Irwin, who is working on a doctorate jointly in physical education and engineering biomechanics, is trying to determine whether the basic strength of bones can be influenced by exercise. The rats used in the experiment are put through eight-week and 16-week programs of sprinting and distance running. The strength of their bones is then compared to a non-exercised control group.

... In biomedicine ...

Engineering students will be offered a biomedical option within their regular degree programs starting in September.

The option will provide special courses oriented to medicine, for a total of 27 credits within the 180 credits required of undergraduates for graduation.

Biomedical engineering is rapidly becoming a significant educational and career activity for engineers.

Robert W. Little, chairman of mechanical engineering and professor of metallurgy, mechanics and materials science, has for many years conducted experiments with collagen from rat tails as a possible means of repairing "football knee." Donald K. Anderson, professor of chemical engineering, has applied engineering principles to physiology and blood flow. C.P. Jethwa, visiting assistant professor of electrical engineering and systems science, from

India, has worked on biomedical instrumentation. Various professors have applied computer processes to medical problems.

Student support for the biomedical courses has been evident through several academic terms on campus. Heavy enrollment began in the Fall of 1971 in Electrical Engineering 403, Electric Theory of Nerves, and similar courses.

Similar support has come from the medical profession, biological scientists and the Colleges of Human Medicine, Osteopathic Medicine, and Veterinary Medicine.

Three medical courses and four engineering courses make up the minor in biomedical engineering. One course in general anatomy and two courses in human physiology form the medical section. The engineering courses, all designated "EME interdisciplinary," are: a mechanical engineering course in

tissue biomechanics; a metallurgy, mechanics and materials science course in materials in biomedical engineering; an electrical engineering course in electric theory of nerves; and a chemical engineering course in biological transport mechanisms.

The graduate would receive a bachelor's degree from one of the traditional departments of engineering, with a minor in biomedical engineering.

Other life science courses may be taken in addition to or as replacement of the EME courses, after consultation with advisors. The EME courses normally will be taken during junior and senior years. Each such course has significant engineering and mathematical content.

Students can elect additional courses in biological and physical sciences, and in mathematics and engineering.

... And in social applications

"The new technologist," Dean Lawrence W. VonTersch said, "will understand the impact of technology on society."

"The graduate also will be capable of recognizing and using analytical and technical tools for problem solving, be aware of the constraints under which new developments must work, and be competent in the special area of application."

The engineering core includes course work in three major categories: identification and application of tools, techniques and theories; interface between technology and society; and integration of technical awareness with the chosen area of application.

The student specializing in industrial design becomes knowledgeable about problems and possible solutions related to such areas as style, design, packaging, and promotions.

The one specializing in business can bring technological skills into management and supervisory roles in business or government, whether engaged in planning, marketing, sales, finance or administration.

The option in communication involves courses in advertising, television and radio, journalism, communication, and audiology and speech science. The graduate would be able to span the gap between engineering and the processes of the media.

The student combining engineering and social science becomes versed in related political and legislative processes, and better understands the problems of people as individuals and as members of society.

The College of Social Science offers four application areas within the social science option.

—FRAN MURRAY



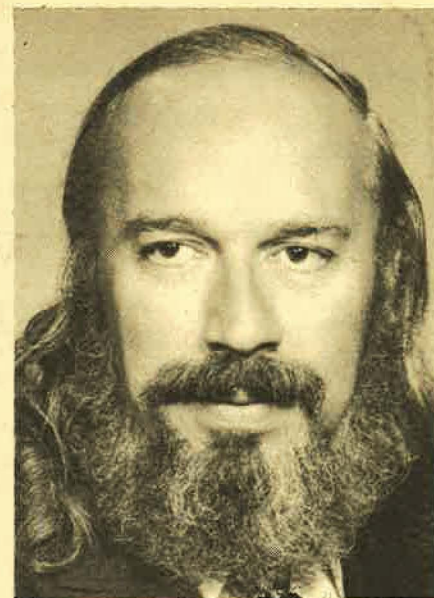
Alfreda McGuire



Don K. Anderson



Gwen Norrell



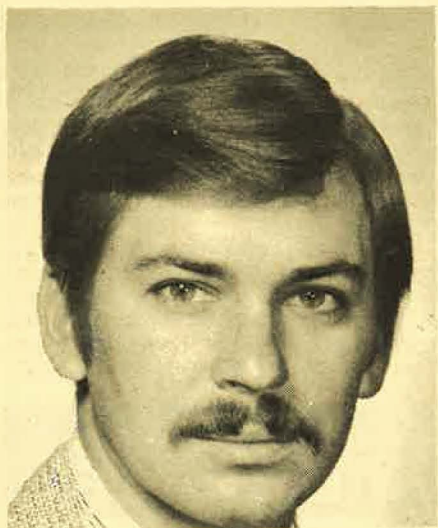
Gerald R. Miller



J. A. Beegle



C. H. Cunningham



Ronald Kerber



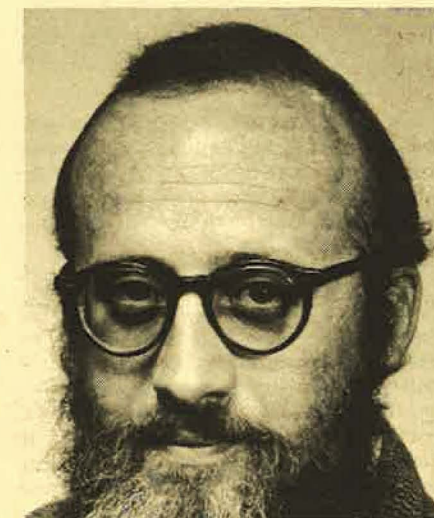
Daniel S. Beasley



Edna Rogers



Walter Verdehr



Martin Benjamin

22 to be honored

Sixteen faculty members and six graduate assistants have been named as recipients of Distinguished Faculty Awards, Teacher - Scholar Awards, and Excellence - in - Teaching Awards.

The winners will be honored at the 1973 Awards Convocation and State of the University Address to be given at 7:30 p.m. Thursday, May 24, in 109 Anthony Hall.

Cash awards were donated by alumni through the MSU Development Fund. In recent years the Standard Oil (Indiana) Foundation has also contributed funds to support the Teacher - Scholar Award program.

In recognition of outstanding contributions to the intellectual development of the University, those named as recipients of the Distinguished Faculty Awards include:

- Donald K. Anderson, professor of chemical engineering.
- J. Allan Beegle, professor of sociology.
- Charles H. Cunningham, professor of microbiology and public health.
- John S. deMartelly, artist in residence.
- Alfreda McGuire, Kent County extension home economist.
- Clinton E. Meadows, professor of dairy science.
- Gerald R. Miller, professor of communication.
- Fauzi M. Najjar, professor of social science.
- Gwendolyn Norrell, professor and assistant director, Counseling Center.
- Barrett Rosenberg, professor of biophysics.

Each Distinguished Faculty Award includes a certificate and a check for \$1,000. Nominations were based on teaching, research or public service, and chosen at the college level by college committees. Larger colleges select an award winner each year, while smaller colleges select an award winner at two - or three - year intervals.

Teacher - Scholar Award winners, named in recognition for devotion and skill in undergraduate teaching, included:

- Daniel Beasley, assistant professor of audiology and speech sciences.
- Martin Benjamin, assistant professor of philosophy.
- Donald P. Cushman, assistant professor of communication.
- Ronald L. Kerber, assistant professor of mechanical engineering.
- L. Edna Rogers, assistant professor of social science.
- Walter Verdehr, assistant professor of music.

Each Teacher - Scholar Award includes a certificate and a check for \$1,000. Nominations for the awards are limited to instructors or assistant professors who have served on the faculty for at least three terms, but no more than five academic years. Candidates were screened by a faculty - student committee appointed by the provost.

Excellence - in - Teaching Awards, given in recognition of care and skill in meeting classroom responsibilities, were granted to:

- Pat James Calabro, marketing and transportation administration.
- Carl Stephen Frankel, botany and plant pathology.
- Gregory D. Gillispie, chemistry.
- Anne L. Ludington, mathematics.
- Michael K. May, chemistry.
- Jerry J. Watson, elementary and special education.

Excellence - in - Teaching Awards are limited to candidates who have held a half - time graduate teaching assistantship for at least two terms and have assumed a significant measure of responsibility for the conduct of undergraduate courses. Nominations are screened by a faculty - student committee appointed by the provost. Each award includes a certificate and a check for \$500.



Fauzi Najjar



Barnett Rosenberg



Donald Cushman

The arts



BY FRED BRUFLOD

73-74 Lecture-Concert Series offerings include Cliburn, Serkin

Some of the world's top performing artists such as pianists Van Cliburn and Rudolf Serkin and cellist Leonard Rose as well as Broadway shows, orchestras and dancers have been booked for the 1973-74 Lecture-Concert Series.

Series "A", the "University Series," opens Oct. 18 with the award-winning Broadway revival, "No, No, Nanette," followed by Van Cliburn, fresh from another Russian tour.

Also on tap will be Agnes De Mille's Heritage Dance Theatre presenting Americana from colonial days to the rock era in folk song, show tunes, poetry and dance.

The University Series also includes the Warsaw Philharmonic Orchestra, Metropolitan Opera star Marilyn Horne, the widely acclaimed youthful Netherlands Wind Ensemble, and the Newark Boys Chorus.

The "Lively Arts Series" (Series "B") will present the Broadway musical, "Two Gentlemen of Verona," winner of the Tony Award for Best Musical of 1972, Rudolf Serkin, one of the world's most respected pianists, and the

Leningrad Philharmonic Orchestra.

Other Series "B" highlights include the musical spoof, "The Intimate P.D.Q. Bach with Professor Peter Schickele," the Preservation Hall Jazz Band of New Orleans, and the Kathakali Dance Theatre of India.

The "Chamber Music at Fairchild Theatre" series will open Oct. 2 with the Concord String Quartet, a young group with a repertoire drawn from three centuries of quartet literature.

Guitarist Christopher Parkening and master cellist Leonard Rose will also be heard in the series.

Ken Beachler, director of the Lecture-Concert Series, points out today and tomorrow are reserved for faculty and staff wishing to subscribe to any of the series. Mail orders for the public begin Monday (May 21).

Ticket information is available from the Ticket Office in the Union (355-3361).

American Composers

MSU's Phi Mu Alpha chapter will present its annual "American

Composers Concert" at 8:15 p.m. Saturday.

Included will be clarinetists William Berz, a music senior, performing "B, A, B, B, IT, T," for solo clarinet by Donald Martino, and pianist Daniel Phillips, a freshman music student, performing "Sonata No. 3 for French Horn and Piano."

One of the aims of the professional music fraternity is to promote music in America.

State Singers

A wide range of choral music will be performed by MSU's 80-voice State Singers Sunday evening. The group will perform two works by its director, Robert A. Harris, associate professor of music, wrote new settings for two traditional hymn texts, "Rejoice Ye Pure In Heart" and "For the Beauty of the Earth."

The concert will include "If I Have Sorrow," by Paul Martin, a music major and member of the group, and two movements from Vaughn Williams "Mass In G Minor."

Pianist Sharon Grimm, a junior at MSU and a recent student at the Salzburg Mozarteum, will be heard in Brahms "Rhapsody in G Minor." She is the accompanist for the State Singers.

PAC's Othello

The Performing Arts Company's production of "Othello" which opens Tuesday will place more focus on Othello and less on Iago, says Frank Rutledge, who is directing the play.

Rutledge, chairman of the theatre department, reports he has done some rearranging of Shakespeare's text and rewritten some scenes. "Shakespeare's repetition is tedious to today's audiences," he said.

Theatre instructor Donna Arnink has built a plastic set which "conveys the tone of the play, but is a non-period set," said Rutledge.

Assistant professor Gretel Stensrud has designed costumes "suggesting" the 1580s.

Othello will be portrayed by guest performer, Keith Williams, assistant professor in Justing Morrill College.

Faulkner criticisms collected in new book

"William Faulkner: Four Decades of Criticism," ed. by Linda Welshimer Wagner. East Lansing: Michigan State University Press, 1973. 374 pps. \$10.00

Ernest Hemingway and William Faulkner, America's two foremost writers of recent times, reacted very differently to literary criticism. Hemingway despised critics; they were, he fumed, "the lice that crawl on literature." Faulkner, on the other hand, dabbled in criticism himself. For his own work, he asked only that critics "Live and let live; criticize with taste for a criterion."

Linda Wagner's anthology does a fine job of documenting the generally

laudatory critical response to Faulkner. (Hemingway, of course, fared less well, though such might not have been the case had he been less vocal in his distaste for the critical temper.) This collection, the latest in a series, contains new essays, an additional section on Faulkner's early work, and an introduction by the author.

Professor Wagner's approach to the anthologization of criticism is historical. The essays included here appeared between 1939 and 1971, and represent the evolution of reviewers perhaps more reliably than the evolution of Faulkner. The critics themselves are for the most part scholars, though Robert Penn

Warren and Conrad Aiken do represent the views of actual writers of fiction.

Most of the essays are interesting, even if the list of their titles does read like an undergraduate catalogue of a term paper company ("Atmosphere and Theme in Faulkner's 'A Rose for Emily,'" etc.) One or two articles, unhappily, demonstrate the tawdry worthless nonsense criticism can become — the straw man variety of criticism, in which the author stipulates a conclusion and then sets out to unearth whatever brittle evidence he can find to support his preconceptions.

An example of this is "The Normality of Snopesism," wherein Joseph Gold tries to convince his readers that the Snopes symbolize not evil forces in the universe but, in fact, are merely typical of denizens of Yoknapatawpha County. He goes about this intellectual backflip not by ascribing positive traits to the Snopes, but by derogating the collective character of their neighbors. The villagers are no better than the Snopes, according to Gold, because they "fail to act in opposition" to the Snopes, and worse yet "passively cooperate" with them. And he cites, among others, the scene in "The Hamlet" where Flem and the Texan swindle the Armisteds, quietly watched by neighbors who knew what was going on.

Only a Southerner can fully appreciate the absolute silliness of this argument. (I speak from a Mississippi boyhood.) In the South, as nowhere else, people jealously guard their inalienable right to make bitter fools of themselves; and would rather do so than be interfered with even by their closest friends, much less mere acquaintances.

Right or wrong (and I suspect it is right), Faulkner elevates minding one's own business to the plane of a moral imperative — and it is significant that so many of his sympathetic protagonists are passive characters. Faulkner himself owed allegiance to this ethic of noninterference.

Eudora Welty tells the story of the aspiring lady novelist who sent Faulkner her manuscript. After some weeks she telephoned him in Oxford. "Mr. Faulkner," she said, "did you ever get that love scene I sent you?" Yes, he had got it. And she said, "Well, what did you think of it?" And Faulkner said,

"Well, honey, it's not the way I'd do it — but you go right ahead."

At any rate, balanced against Gold's artifices are real eloquence ("William Faulkner," by Robert Penn Warren) and rare insight ("The Reivers: Faulkner's Tempest," by William Rosky). The latter, incidentally, is the only article I have run across which ascribes to "The Reivers" what is probably its true depth and importance.

I suppose writers will continue to equivocate in their acceptance of literary criticism, but "William Faulkner: Four Decades of Criticism" is the sort of collection that Faulkner himself, at least, might have enjoyed.

— JAMES D. HARKNESS

Linda Welshimer Wagner is a professor of English at MSU and the author of five previous books. Her current critical study, "Hemingway and Faulkner: A New Approach," will appear later this year, and scheduled for publication next year by the MSU Press is "Ernest Hemingway: Five Decades of Criticism."

James David Harkness is a freelance writer and editorial consultant. He recently completed an assignment with the Task Force on Lifelong Education. He has contributed to several magazines and is represented in the "Beacon Anthology of Underground Poetry."

Books

CHARLES PRESS, professor and chairman, has written "Review Symposium, Norton Long, The Unwalled City," in "American Politics Review."

CAROL STIEBER, assistant professor, has written a review of Ronald Formisano's "The Birth of Mass Political Parties - Michigan, 1827 - 1861" which was printed in "The Journal of Developing Areas."

BEATRICE PAOLUCCI, professor and acting chairman of family ecology, has coauthored a new book, "Personal Perspectives: A Guide to Decision Making" published by McGraw Hill Co.

SURJIT DULAI, associate professor of humanities, has published two articles entitled "The Influence of English on Punjabi Literature" and "The Influence of English on Punjabi Language" in "The Encyclopedia of Punjabi Literature."

MSU Positions Available

IMPORTANT: Administrative - Professional and Clerical - Technical applicants should contact the Employment Office at 353 - 4334 by May 22, 1973 and refer to the vacancy by position number. Fuller descriptions of positions are available in departmental postings. Instructional staff applicants should contact department noted.

ADMINISTRATIVE - PROFESSIONAL

385. Personnel Representative A - P III (B.A. in Education, Personnel Mgt., Business or Labor Rels. or an equivalent combination of education and experience is necessary) To recruit, recommend and refer applicants for employment and arrange or the employment and transfer of all non-academic employees. Implement Affirmative Action and Equal Opportunity Programs. Must be acquainted with Fair Labor Laws. Attend Minority Group Meetings in the Lansing area. \$10,370 - 13,630

CLERICAL - TECHNICAL

386. Service Officer - Operate police desk (radio, dispatch patrol vehicles, etc.); parking enforcement; traffic control. Much public contact. Week - end work as required. Possibility of future consideration as Public Safety Officer. \$7,280

387. Laboratory Technician VII (BS in Biochemistry, Agricultural Chemistry, Medical Technology, etc. or equivalent education and experience) Knowledge of routine histological techniques and procedures. Training in biochemical assay procedures in terms of accuracy and safety. \$6,660 - 8,272

388. Office Asst. VII - Excellent typing, use of transcribing equip. and shorthand required. Open and sort mail, filing, preparing business procedure forms and related duties as assigned. Prefer a mature person who is

capable of handling confidential documents with pleasing personality for receptionist duties involving patients. Minimum of four years experience. \$6,660 - 8,272

389 & 390. Sr. Dept. Secretary (2 positions) General duties and responsibilities. Handle correspondence and compose letters. Must be punctual and reliable. General management of office personnel, maintain inventory of equipment and budgets. \$6,660 - 8,272

391. Principal Clerk VI - Must be able to take dictation as well as handle the other customary secretarial duties. Must be good in bookkeeping since job requires cash flow, bank deposits, and cheese inventory. \$6,436 - 7,389

392 - 394. Dept. Secretary V (3 positions) General office work, punctual and reliable. One position serves customers, takes orders by phone and over counter, ability to process orders, handle money & dept. records. \$6,267 - 7,389

395 - 399. Sr. Clerk IV (5 positions) Various requirements such as cashier experience, knowledge of medical terminology, run duplicating machines, and being a receptionist. \$5,735 - 6,926 or \$2,76 - 3,33/hour

400. Clerk - Typist III - Communicate clearly by telephone, file accurately, operate various types of office machines, colate and assemble materials and type accurately. \$5,511 - 6,562

401. Clerk - Typist II (3 positions) Good typing; phone work and use of office machines. Neat appearance. \$2,62 - 3,09/hour

402. Clerk I - Accurate typist, nice personality, able to accept responsibilities. \$2,58 - 2,96/hour

MICHIGAN STATE UNIVERSITY IS AN EQUAL OPPORTUNITY EMPLOYER

BULLETINS

STEERING COMMITTEE

The Steering Committee of the Faculty will meet at 3 p.m. Monday, May 21 in 443A Administration to set the agenda for the Academic Council meeting May 31.

WOMEN'S COUNCIL

The Women's Advisory Council will meet at 9:30 a.m., Monday, May 21, in 443B Administration. The agenda will include tenure speaker Herman L. King, assistant provost; a review of the final draft regarding professorial discriminatory remarks; State News advertising, and job security for part-time employees. This meeting is open.

ACADEMIC APPAREL

Faculty members and advanced degree candidates who wish to rent academic apparel for spring term commencement, Sunday, June 10, are advised to inquire at the Union Desk or call 5-3498. The deadline for reservation orders is Thursday, May 31. Hoods from other universities must be special ordered and should be requested now.

MEDIA '73

A three-day festival designed to bring various types of artistic expression together, Media '73 will be held in one of the largest student-built inflatable structures. Visiting artists and professionals will conduct workshops in areas ranging from computer graphics to video synthesis. Programs outlining the event, to be held May 17-19, are available in 218 Kresge.

CONFERENCES

May 19 International Association for Personnel Employment Security
May 19 Michigan Council on International Education
May 21-22 Conf. on Teaching Medicine by Simulation
May 21-24 N. C. Farm Management Extension Workshop

BOARD MATERIAL

Material for consideration at the June 15 meeting of the Board of Trustees is due in the office of either the executive vice president or the provost by Wednesday, May 23.

FACULTY CONVOCATION

The annual Faculty Awards Convocation and the President's "State of the University" address will be combined this year at 7:30 p.m. Thursday, May 24, in Anthony Auditorium. The convocation will be open to the public and all members of the academic community are invited.

OBSERVATORY

Observatory will be open to the public from 8:30-10:30 p.m. Saturday, May 19. Weather permitting, the 24-inch reflecting telescope will be used for observing celestial objects of current interest. Children under age 13 should be accompanied by at least one adult for each three children.

LECTURE-CONCERT

May 17 and 18 are set aside by the Lecture-Concert office for exclusive season ticket sales to MSU faculty-staff as new patrons. This an excellent opportunity to select prime seating locations in the Auditorium. Master Charge and BankAmericard are accepted for season ticket purchases. Visit the Union Ticket Office, 8:15 a.m.-4:30 p.m., 5-3361. If you wish to receive Lecture-Concert mailings, phone 5-6686.

EXHIBITIONS

Library

In honor of Michigan Week, the exhibit "Michigan Revisited" includes a display of the state's historical accounts, journals, and maps.

Beal Garden

Current conspicuous bloom includes the white American redbud, the mountain silverbell and the flowering dogwoods, including a pink form.

Kresge Art Gallery

The exhibition of work by undergraduates and M.A. students will close Sunday, May 20. Included are examples of work from all sections of the art department.

Gallery hours: Monday through Friday, 9 a.m. to 5 p.m., Tuesday, 7 to 9 p.m., Saturday and Sunday, 1 to 4 p.m.

Hidden Lake Gardens, Tipton

More than 200 crabapple and 100 lilac varieties contribute to the blossom spectacle symbolic of the season. Open daily 8 a.m. until sundown.

Museum

The life studies of botanist William James Beal, founder of the Beal Botanical Gardens, are currently on display. Hours are 8 a.m. to 5 p.m. Mondays through Fridays, 1 to 5 p.m. weekends.

Campus Plantings

The unusual spring weather has resulted in a mingling of campus bloom that is normally spread out over a considerably wider time span. Presently conspicuous are the flowering dogwoods at Kellogg Court, Landon Terrace and International Center.

SEMINARS

THURSDAY, MAY 17, 1973

Functional organization of the vertebrate retina. John E. Dowling, Harvard U., 4:15 p.m., 126 Psychology Research. **Psychology.**

Science and space. Thomas O. Paine, vice president and group executive, General Electric Co., 4:10 p.m., 120 Physics-Astronomy. **Physics.**

MONDAY, MAY 21, 1973

Adsorption and desorption of phosphate in soils and clays. U. Kafkafi, chairman, Dept. of Soil Chemistry and Plant Nutrition, Volcanic Institute of Agricultural Research, Israel. 4 p.m., 301 Agriculture. **Crop and Soil Sciences.**

Backbending phenomenon at high spins and the nuclear-many-body problem. Krishna Kumar, Vanderbilt U., 4:10 p.m., Cyclotron Laboratory Seminar Room. **Cyclotron.**

Current research on dairy products. Theodore Hedrick, 12:30 p.m., 126 Anthony. **Dairy Science.**

Mesenteric hemodynamics with emphasis on venous resistance and compliance in the developmental stage of experimental renovascular hypertension. Geza Simon, 4 p.m., 216 Giltner. **Physiology.**

TUESDAY, MAY 22, 1973

Basic structure and operational outline for an extension service program in rural housing. Wilburn N.F. Saia, vice president and Ohio division manager, Spancrete Northeast Inc., Aurora, Ohio, 1:30 p.m., 218 Agricultural Engineering. **Agricultural Engineering.**

Characterization of the phosvitin fraction of hen's egg yolk. Richard Shantz, 4:10 p.m., 103 Food Science. **Food Science and Human Nutrition.**

Modifying the ionosphere with intense radio waves. M.Z.v. Krzywoblocki, 4:10 p.m., 312 Engineering. **Metallurgy, Mechanics and Materials Science and Mechanical Engineering.**

Is there a histaminergic sympathetic vasodilator pathway? Lynne C. Weaver, NIH postdoctoral trainee, 4 p.m., 449B Life Sciences. **Pharmacology.**

Conditional and unconditional properties of confidence sets for normal means. R. Olshen, Dept. of Statistics, U. of Michigan, 4:10 p.m., 405A Wells. **Statistics and Probability.**

Pass-fail evaluation in medical education. Stephen Abrahamson, director, Division of Research in Medical Education, U. of Southern California, 12:10 p.m., 213 Veterinary Clinic. **Veterinary Medicine.**

WEDNESDAY, MAY 23, 1973

The effect of 2-O-methylation on the physical and biological properties of RNA molecules. Fritz Rottman, 4 p.m., 103 Anthony. **Genetics.**

May 21-25 Police Alcohol Training
May 21-25 Basic Life and Health Insurance Institute
May 22 Organizational Development Seminar
May 23 Teacher Tenure Conference

The effects of amino acids, hormones, and pyrimidine analogs on the hepatic level of serine dehydratase and tyrosine aminotransferase. H.C. Pitot, professor of oncology and pathology, U. of Wisconsin. 4 p.m., 131 Anthony. **Institute of Nutrition.**

Mythical and literary plagues from Sophocles to Artaud. Rene N. Girard, faculty of arts and letters, SUNY at Buffalo. 8 p.m., 102B Wells. **Romance Languages.**

Induction of chlamydospore production in *Fusarium* by streptomycetes. Marina Chiang. 4 p.m., 168 Plant Biology Lab. **Plant Pathology.**

Stomatal action: hydraulic and hormonal regulation of water loss from leaves. Klaus Raschke, 4:10 p.m., 101 Biochemistry. **Plant Research Laboratory.**

THURSDAY, MAY 24, 1973

The new agricultural development strategy in Tanzania—a shift to satisfying domestic demand. Simon Mbilinyi, visiting scholar and director, Economic Research Bureau, U. of Dar es Salaam, Tanzania. 3:30 p.m., 312 Agriculture. **Agricultural Economics.**

Metabolic oscillations and intercellular communication. E. Kendall Pye, Dept. of Biochemistry, U. of Pennsylvania, 4:10 p.m., 101 Biochemistry. **Biochemistry.**

Radionuclides in the aquatic environment. Niles R. Kevern, 1:30 p.m., 223 Natural Resources. **Fisheries and Wildlife.**

Significance and implications of cratonal eustatics and tectonics. Laurence L. Sloss, 3:30 p.m., 204 Natural Science. **Geology.**

Estrus, ovulation and hormonal changes in mares after prostaglandin F_{2α}. Patricia Noden, 8 a.m., 149A Vet. Clinic. **Large Animal Surgery and Medicine.**

What is the "grue-bleen paradox"? James Roper, 8 p.m., 107 Morrill. **Philosophy.**

The supernovae of the second millenium A.D. Sidney van den Bergh, U. of Toronto, 4:10 p.m., 120 Physics-Astronomy. **Physics.**

Sensory, motivational and neural mechanisms of gustation. Carl Pfaffmann, vice president and professor, The Rockefeller U., 4 p.m., 102B Wells. **Physiology and Psychology.**

FRIDAY, MAY 25, 1973

Immobilized enzymes and their application. E. Kendall Pye, Dept. of Biochemistry, U. of Pennsylvania, 12:40 p.m., 101 Biochemistry. **Biochemistry.**

Environmental and clinical aspects of black-related diseases. Richard A. Williams, assistant medical director, Martin Luther King Jr. General Hospital, Los Angeles. 2 p.m., 137 E. Fee. **Human Medicine and College of Urban Development.**

FRIDAY, MAY 18, 1973

- 2 p.m. Baseball—MSU vs. Northwestern. Kobs Field.
- 7:30 p.m. Part I (1946) of "Ivan the Terrible" will be presented as part of the Eisenstein Film Festival, sponsored free of charge by the Russian and East European Studies Program. 102B Wells.
- 8 p.m. "Sun: Star of Life" is a new show in the sky theatre emphasizing that no physical object of the universe beyond earth has been so significant to man as the sun. A 15-minute skywatching presentation will follow the 8 p.m. shows. Abrams Planetarium.
- 8 p.m. Mariah Folk and Blues Coffeehouse presents John Prine. Tickets are available in advance at the Union, Marshall Music, and Elderly Instruments for \$2. Tickets at the door are \$2.50. Erickson Kiva.
- 8 p.m. "Sty of the Blind Pig," a play which focuses on the life of a frustrated 35-year-old bachelorette who channels her unfulfilled desires into religious fanaticism, will be performed by the Black Arts Company. It will be followed by the story of an unwed mother who tries to make society accept her lifestyle in "Spice of Life." Studio 49, Fairchild Theatre.
- 8:15 p.m. Spring concert—Women's Glee Club. Music Auditorium.
- 10 p.m. "Sun: Star of Life" (see above). Abrams Planetarium.
- 10:30 p.m. Mariah (see above). Erickson Kiva.

SATURDAY, MAY 19, 1973

- 1 p.m. Baseball—MSU vs. Wisconsin. Kobs Field.
- 2 p.m. Lacrosse—MSU vs. Wittenberg. Old football practice field.
- 2 p.m. "Ivan the Terrible," Part II (see May 18). 102B Wells.
- 2:30 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 8 p.m. "Sty of the Blind Pig" (see May 18). Studio 49, Fairchild Theatre.
- 8 p.m. Mariah presents Steve Goodman. Advance tickets, available at the Union, Marshall Music, and Elderly Instruments, are \$1. Tickets are \$1.50 at the door. Erickson Kiva.
- 8 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 10 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 10:30 p.m. Mariah (see above). Erickson Kiva.

SUNDAY, MAY 20, 1973

- 4 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 4 p.m. Graduate recital—Nancy Koski, viola. Music Auditorium.
- 8 p.m. Black Orpheus, MSU's gospel choir, will present a concert. Admission is \$1. Erickson Kiva.

BULLETINS

DELAYED ISSUE Next week's News-Bulletin will not be issued until Friday, May 25. All material for the Calendar of Events should still be submitted by noon Tuesday.

LAB PRESCHOOL The Institute for Family and Child Study Lab Preschool Summer Program still has a few openings for June 25 to July 26. Call 3-7999 for information.

SUPERVISORS The annual general meeting of the MSU Supervisors Association will be held at 8 p.m., Thursday, May 17 in G8 Holden. Elections will be held.

RURAL HEALTH The Michigan Conference on Rural Health will begin at 9:30 a.m., Thursday, May 24, in Kellogg Center. Maurice Reizen, director, Michigan Department of Health, will present the keynote address.

CANINE COMMENCEMENT A dog obedience commencement sponsored by the wives of veterinary medicine students will be held at 7:15 p.m. Monday, May 21, in the Judging Pavilion. For information, contact Pat Smith, 489-7675.

RENAUD LECTURES Paul D. Bartlett of Harvard will present the 25th annual Renaud lectures in chemistry May 21-23, in 138 Chemistry. He will speak on "The Resolution of Mechanisms of Cycloaddition" at 4 p.m. on Monday, "The Current Scene in Chemistry" at 8 p.m. on Tuesday, and "Aspects of the Chemistry of Singlet Oxygen" at 4 p.m. on Wednesday.

MEDICAL SIMULATION A symposium on simulation in medicine will be held in Kellogg Center May 21 and 22, beginning at 8:30 a.m. Monday. Hilliard Jason, founding director of the MSU Office of Medical Education, Research and Development, will give the opening address, "Educational Uses of Simulation: Attributes, Assumptions and Applications" in the Lincoln Room. For information, contact Jack L. Maatsch, 393-9400.

8:15 p.m. Concert—The 80-voice State Singers will perform two works by the group's conductor, Robert Harris, and one by music junior Paul Martin, who is a member. Works by Vaughan Williams, Billings, Bach, Stravinsky, Ulysses Kay, Randall Thompson, and John Ness Beck will also be sung. There is no admission charge. Music Auditorium.

8:15 p.m. Graduate recital—Alvin Lowrey, trumpet. Hart Recital Hall.

MONDAY, MAY 21, 1973

- 8 p.m. Family concert—MSU's Concert Band will present a special program including selections by Strauss, Clifton Williams, Leroy Anderson, and works from "Sound of Music." Potterville High School.
- 8 p.m. "Diffusions in Dance" will be presented by the Black Arts Dance Company. Admission is \$1. Kellogg Center Auditorium.

TUESDAY, MAY 22, 1973

- 12 p.m. University Club luncheon—Keith Goldhammer, dean of the College of Education, will speak on "The College of Education, the University and the Public Schools of Michigan."

WEDNESDAY, MAY 23, 1973

- 7:15 p.m. Duplicate bridge—All faculty and staff, as individuals or couples, are invited to participate. For information, call Raymond F. Johnston, 5-6483. Second floor, Union.
- 8:15 p.m. Graduate recital—Jung Chung, piano. Music Auditorium.

FRIDAY, MAY 25, 1973

- 10 a.m. Board of Trustees.
- 3 p.m. Track—Central Collegiate meet. Ralph Young Field.
- 7:30 p.m. "Thunder Over Mexico" and "Sergei Eisenstein" are presented as part of the Eisenstein Film Festival. 102B Wells.
- 8 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 10 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.

SATURDAY, MAY 26, 1973

- 2 p.m. Track—Central Collegiate meet. Ralph Young Field.
- 2 p.m. Eisenstein Film Festival (see May 25). 102B Wells.
- 2:30 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.
- 8 p.m. "Sun: Star of Life" (see May 18). Abrams Planetarium.

LYMAN GLENNY

Lyman A. Glenny, director, Center for the Study of Higher Education at the U. of California, Berkeley, will speak on "Trends in Higher Education and Implications for Graduate Students" on Tuesday, May 22, at 3 p.m. in 102B Wells. His visit is sponsored by the Dept. of Administration and Higher Education.

THAIPUSAM

The Asian Studies Center will present the Michigan premiere of the film, "Thaipusam: A Hindu Healing Festival" on Tuesday, May 22, at 3:30 p.m. in 110 Anthony. Prepared by Ronald Simons and Gunter Pfaff, this film depicts the festival in which participants repay a religious obligation by undergoing various painful proceedings while in trance states.

JESSE JACKSON

Jesse Jackson will speak at 2 p.m. Friday, May 18, on his black economic program and on the continuing programs of Operation PUSH. He will be accompanied by the PUSH Gospel Choir. Admission is \$1, which will go toward the support of the urban journalism workshop being planned by the Grapevine Journal and the State News. Jackson will appear in the Auditorium.

FLEA MARKET

Everything from halter tops to pottery will be on sale at the Union Board Flea Market from 11 a.m. to 6 p.m., May 19 on the lawn between Human Ecology and the Union. This year's market will include demonstrations of quilting, weaving, pottery and other folk crafts. Persons interested in signing up should come to the Union Board office or call Patty Muldoon at 5-3355. Deadline for sign-ups is 4 p.m. Friday, May 18.

PORTABLE TERMINALS

The Computer Laboratory has a limited pool of portable terminals for communicating with computers which weigh less than 30 pounds and may be used with any standard telephone instrument. Rental rates are \$6 per day (noon to noon), \$25 per week or \$50 per month. Teletype lease is now subject to minimum periods of one week with a \$20 per week or \$60 per month charge. Persons interested should contact Donald E. Horner, 3-6739.

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.