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UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
JANUARY 4, 1977

NEWS PEOPLE: For further information
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NEW WALKWAY OPENED
FOR 'U' DORM STUDENTS

(FOR IMMEDIATE RELEASE)

Middlebrook Hall is the only University of Minnesota dormitory on the West Bank of the Minneapolis campus.

It is separated from other University buildings on the West Bank by South Fourth Street.

The problems associated with getting the 612 dormitory residents safely across the roadway have occupied the attention of University housing and planning officials for six years. Also involved on various occasions have been the Minneapolis Park Board, the Minneapolis City Council and a mysterious road crew.

Middlebrook Hall was built in 1969. Original proposals had called for construction of four dormitory towers with a connecting walkway, but budget cuts had eliminated all but the single tower.

Initial inquiries about getting some kind of traffic control for students crossing the street from Middlebrook were rejected on the grounds that the point at which they wished to cross was not a natural intersection.

"The students were only human in wanting to get from one point to another by the most direct route," said David Anderson, director of University Housing and former director at Middlebrook.

Pressure for traffic control mounted in the fall of 1970 after a University student was seriously injured in a car-pedestrian accident on South Fourth Street. A short time later a signal light was installed at a nearby corner.

But few students made their way to the crossing at the light.

The steep embankments on either side of the roadway became well-worn paths, muddy in the spring and icy in the winter. The embankment slide brought bumps and bruises to many students and frequent complaints of damaged clothing.

(MORE)

"It was a goat trail and the students went down it like lemmings," Anderson said.

Pressure continued for a more direct route across the street. One group supporting it was called "The Slide for Life Committee," according to Neil Bakkenist, current director at Middlebrook.

A student survey of pedestrian traffic between Middlebrook and other West Bank buildings revealed that 2,000 trips were made across the roadway in one day. Officials from the University's environmental health department came over and agreed that the crossing situation was hazardous, Bakkenist said.

But efforts to get a walkway or safe crossing were stymied by a land-ownership problem with the area involved.

When the University had constructed various West Bank buildings, road sections had been rerouted and the University and the Minneapolis Park Board had exchanged some land. The embankments on either side of South Fourth Street were owned by the Park Board and considered part of their River Front Park.

"The Park Board said they would have to give permission for anything to be built, and nothing short of an elevated bridge would be acceptable," Bakkenist said. "The structure had to be aesthetically pleasing and permanent and accommodate future highway designs." The Park Board also pointed out that they would not pay for the walkway.

Late one evening a few years ago, a staff member at Middlebrook Hall looked out toward South Fourth Street and was startled to see a highway crew painting a striped crosswalk.

"The Park Board was furious," Bakkenist said.

Demands by the Park Board that the crosswalk be painted over were ignored because no one acknowledged having authorized the work.

"The University didn't do it and the city didn't do it," Anderson said.

Meanwhile, people continued to slip and slide down the embankment and a claim against the University by an individual who had suffered a broken ankle in a fall finally revealed that the Park Board had never been given the deed to the land in question.

(MORE)

Jerry Nelson, with the civil engineering department of the University's Planning Office, admitted that he was as surprised as anyone at the fact that the land had never actually been transferred. "That was supposed to have taken place 11 or 12 years ago," he said.

Jeff Lalla, University attorney, said there were no legal problems in the case. The failure to transfer the deed was just an "oversight."

Once the oversight was discovered, the deed was transferred within a short time to the Park Board, but with an easement put in for the walkway, according to Nelson.

Work on the walkway bridge began last spring. Students were able to begin using it early in December.

Eric Wheeler, project director with the University's Planning Office, reports walkway costs have been \$194,920. Sweitzer Construction Company of St. Paul was the general contractor. Landscape architects for the project were Jerry Bailey and Associates of Jonathon, Minn., and structural engineers were Egil Wefald and Associates of Minneapolis.

Underground wiring has been installed for lights on the bridge approaches, Wheeler said. The lights will be installed in the spring. Temporary illumination is now provided by lights on top of Rarig Center.

Steps leading from the bridge to Middlebrook have been redesigned and will be blocked off this winter for safety reasons and replaced in the spring. But the walkway is accessible via ramps on both sides.

-UNS-

(AO,7;B1;CO,7;D7)

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GLACIAL DEPOSITS DETAILED
IN REPORT FROM MINNESOTA
GEOLOGICAL SURVEY

(FOR IMMEDIATE RELEASE)

A new map and report describing Minnesota's recent and glacial geologic period (the Quaternary) is now available from the Minnesota Geological Survey in St. Paul.

Entitled "Quaternary Geologic Map Index of Minnesota," the report (published as Report of Investigations RI-15) may be obtained for \$2 prepaid from the Minnesota Geological Survey, 1633 Eustis St., St. Paul, MN 55108. Minnesota residents should add 4 per cent sales tax.

The 22-page report by Joseph E. Goebel includes the index map and a list of 157 published and manuscript sources on the Quaternary geology of parts or all of Minnesota. It is a bibliography of selected maps, figures, plates and sheets about the Quaternary, or glacial and recent geology of the state.

"Most of Minnesota is blanketed by 100 feet or more of glacial deposits," University of Minnesota Prof. Matt Walton, director of the Survey, said. "The soils, which are Minnesota's greatest natural asset, are largely developed from and on a substrate of glacial deposits. Most environmental and developmental problems and most of the groundwater resources involve the Quaternary geology.

"The Minnesota Geological Survey is using the field studies listed in the Map Index in conjunction with satellite imagery to prepare a map of the state's Quaternary geology. This map will be ready for publication early in 1977," Walton said in announcing the report. "When completed, the map will contribute to our basic understanding of the Quaternary history of the midcontinent in addition to its practical importance."

The research is supported by grants from the National Aeronautics and Space Administration (NASA), the U.S. Geological Survey and the Minnesota State Planning

Agency.
(AO,4,18;B1,2;CO,4;DO,4;E19)

-UNS-

(FOR RELEASE ANY TIME)

Feature story from the
University of Minnesota
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January 5, 1977

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EXECUTIVES ARE NOT AS 'MACHO'
AS THE STEREOTYPE HAS IT

By Brian Lowey
University News Service

If you've ever watched "Executive Suite" or "The Moneychangers," two new television series about corporate executives, you've seen executives portrayed as rowdy, disagreeable desk-pounders who rage at incompetent subordinates.

In fact, one of the executives on "The Moneychangers" is so macho that he roughs up gangs of hoodlums on his lunch hour and spends evenings with his mistress while his wife stays home alone. Is this guy typical?

"The executive is not the type of guy you see on these shows," says Marvin Dunnette, University of Minnesota professor of industrial and organizational psychology.

"This stereotype that executives are tough, masculine people is simply not true," he said. "Saying someone is 'masculine' says very little about his behavior."

The truth of the matter is that most executives are extroverted, self-confident people who can readily assimilate information. Whether these traits are elements of "masculinity" is debatable.

"This stereotype that masculinity constitutes success is one of the major problems women rising up through corporations face," Dunnette said.

Along with the picture of executives as macho types goes the view of the corporate world as a jungle where heartless, ambitious men are willing to do anything to claw their way to the top.

"The guy who makes it to the top is too smooth to claw too hard," Dunnette said. "When he does claw he might not even notice it, but the people he beats out sure do, and they may regard him as being a bit unfeeling."

(MORE)

But even the notion that a lot of firing and demoting goes on in the upper echelon of corporations is incorrect.

"It is uncommon to be demoted or fired," Dunnette said. "There is a lot of fat in big corporations--in fact they need a lot of people who really don't produce that much. One good executive can create a lot of income for a large corporation to assimilate, so positions are created for semi-producers to soak up the extra profits. But the better corporations don't put up with a lot of this," he said.

"Some companies do axe people, but when they do, it is frequently not for incompetence, but rather for lack of trust. When executives become incompetent they usually aren't fired but instead are shifted to 'non-positions' where they have little responsibility but still bring home a big salary."

This does not mean that people who make it to the top can expect the "Good Life." There is some infighting--and some people do get fired. Hard decisions. sometimes also have to be made--decisions which could put hundreds of people out of work.

"Some people would call this heartlessness, but you could also call it objectivity," he said.

Dunnette says that although many of the popular stereotypes regarding executives are totally incorrect, there are a number of traits which almost all top executives share. In fact, many of these traits can be detected as early as high school.

"What you can do is give a group of six or eight kids a topic to discuss and observe them," Dunnette said. "The idea is to see who organizes the discussion and takes charge." According to Dunnette, that child is the executive.

"You could also give the same group a standard set of memos and reports and have them make decisions. Give them a set of goals and give them a couple of hours to organize, say, a swimming meet." The kid who assumes a leadership role may be headed for the top. "This tendency to be the dominant member of a group is one thing that cuts across executive personalities," he said.

(MORE)

As for detecting budding executives earlier than high school, Dunnette says forget it. "You might be able to make a prediction about those who do assume leadership roles, but you certainly can't make a prediction about those who don't."

One thing parents can keep an eye on even this early, however, is general intelligence. "Executives are smarter up to a point, but the super-brilliant--I mean those in the 99th percentile--usually seek a greater degree of intellectual stimulation. Bubbling their way up through the corporate organization just doesn't appeal to them."

The exception to this rule is the extremely brilliant man--like Edwin H. Land of Polaroid--who founds his own company and catapults directly to the top. Anything else would be just too dull for a genius.

This may come as a comfort to parents whose kids regularly come home with report cards decorated with F's, but it is not intended to suggest that top executives usually perform poorly in school. "Not getting good grades is not an avenue to success," Dunnette said.

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(AO,12,28;B1,9;CO,12,DO,12,E6,12,G29)

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JANUARY 5, 1977

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JUNIOR HIGH MINORITY
STUDENTS MAY CROSS 'MATH
BRIDGE' TO CAREERS

(FOR IMMEDIATE RELEASE)

Math is not, to put it mildly, the most popular subject in school. Yet, as Associate Prof. Jack Moran of the University of Minnesota points out, a lot of math is needed to enter most professions--engineering, accounting and the health sciences, for example.

Moran, who is director of the University's Project Technology Power, is especially concerned that minorities are poorly represented in the math-related professions. Less than 2 per cent of U.S. engineers are black, and the situation is no better for Native Americans or Chicanos.

As an attempt to do something about it, Moran has worked with Ross Taylor and Charles Lund, mathematics consultants for the Minneapolis and St. Paul Public Schools, to devise a "Math Bridge." They hope the program will make math more popular with minority students in inner-city junior high schools and open the door to careers that would otherwise be beyond their grasp.

In February and March of this year, more than 100 students, mostly eighth graders, will be invited to spend Saturday mornings at the University of Minnesota with math teachers from their own schools and the high schools they are likely to attend in a few years. At the University, they will explore the world of mathematics, including probability in games of chance, computer art and geodesic domes.

"We're hoping," Moran said, "to turn the kids on, both to the math they've been avoiding and to the people who teach it."

The students who take part in the Math Bridge program will be invited as ninth and tenth graders to tour local companies that employ engineers and scientists and to pursue individual and group out-of-school projects under the guidance of professionals.

Eleventh graders may be invited to the Junior Year Saturday Program, in which about two dozen talented minority students from the metropolitan area work with University professors on a variety of engineering-related projects. Later on, summer jobs that give the students an even deeper exposure to engineers and scientists will be arranged as often as possible.

(MORE)

In addition, many local companies have donated funds for merit-based scholarships providing tuition, fees, books and room and board for a few exceptionally well prepared freshmen in the Institute of Technology at the University.

Math Bridge is not Project Technology Power's first attempt to motivate junior-high minority students to take more math and science. Since 1971, the project has operated a Peer Teaching Program, training more than 300 students to help teach math and science in regular classes one or two grade levels below their own.

Several other programs are operated by Project Technology Power, which began in 1970 as an attempt to increase the number of Twin Cities minority students in engineering and the sciences at colleges of their choice, but especially at the University's Institute of Technology.

Staffed by volunteers from local industry and the schools, Project Technology Power is financed by grants from local industry, the Midwest Program for Minorities in Engineering, and the University of Minnesota. Moran reports to a steering committee consisting of James Engen of the Pillsbury Company, John Mitchell of Honeywell, Sharon Ireland of the Minneapolis Public Schools and Virginia Flores of the St. Paul Public Schools.

"Even in schools that enroll 30 to 40 per cent minority students, geometry and biology classes are still almost entirely white. We're hoping the Math Bridge program will change that," said Moran, who is an aerospace engineer himself.

-UNS-

(AO, 4, 8, 9, 10, 11, 16; B1; CO, 14; DO, 14; E4, 9, 10, 11, 15)

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JANUARY 6, 1977

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PEARLSTEIN RESIGNS

(FOR IMMEDIATE RELEASE)

Mitchell Pearlstein, assistant to University of Minnesota President C. Peter Magrath, will leave his position in early May to attend graduate school in the Chicago area.

Pearlstein will move to Chicago because his wife, Monnie Ottenbacher, has accepted a position as marketing research analyst for Hollister, Inc., which manufactures and distributes hospital and related supplies.

Ottenbacher, 25, a native of Aberdeen, S.D., is currently Hollister territorial manager for sales in southern Minnesota and western Wisconsin.

Pearlstein will remain at the University of Minnesota through the summer to complete the course work for a master of arts degree in educational administration. In Chicago, he plans to begin work on a doctoral degree in education.

Pearlstein, 28, came to Minnesota in fall, 1974, from Binghamton, N.Y., where he was director of information at the State University of New York (SUNY) campus there.

Pearlstein is a native of the Far Rockaway section of New York City. He was a newspaper reporter and political adviser in Binghamton before taking the SUNY position. He received a B.A. in political science on that campus in 1970.

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(AO,1,27;B1;CO,1)

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JANUARY 6, 1976

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U-BUS SERVICE EXPANDED
FOR WINTER QUARTER

(FOR IMMEDIATE RELEASE)

Several thousand University of Minnesota students, staff and faculty arrive on the Minneapolis campus every morning by way of the 10 U-bus routes and take the buses home from campus in the afternoon.

Because a number of the routes have multiple trips in both the morning and the afternoon, many of the early buses leave their destinations and retrace their routes to begin another trip. Riders can now use these turnaround trips to leave the campus early or to arrive on campus in the afternoon.

"We haven't publicized the turnaround trips but decided to do it winter quarter to see if there might be some riders on a bus that would otherwise be empty," said Roger Huss, University transit coordinator.

A student with just one early morning class may now take a U-Bus to campus (routes A, C or F) and be able to leave campus immediately after class on another U-Bus. Students with classes only in the afternoon will now be able to take an afternoon U-Bus to campus, if they use Route A, C or F.

The A route comes to campus by way of Cedar Avenue from 46th Street and Grand Avenue. The C route originates at 42nd Street and Grand Avenue and comes to campus by way of Lyndale Avenue. The F route originates at Edgcumbe Road and Snelling Avenue in St. Paul and comes to campus via Snelling and I-94.

The A route will have two turnaround trips in the morning and two in the afternoon. The C route will have two in the morning and one in the afternoon. The F route will have three in the morning and three in the afternoon.

A late afternoon trip has been added to the L route, which runs to 31st Street and Lyndale Avenue. The late bus will leave the Minneapolis campus at 5:10 p.m.

Huss said the heaviest ridership of the 10 routes is on the G route, which begins at 83rd Street and Portland Avenue and travels to campus via I-35W from Lake Street. There are no turnaround trips on this route, but there are five regular trips in the morning and four in the afternoon.

"We had very crowded buses and put on two or three buses for the same trip until riders indicated that they would take the bus at a later time if there were more trips to and from campus," Huss said.

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(AO,7;B1)

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JANUARY 6, 1977

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Jan. 9-15

- Sun., Jan. 9---St. Paul Student Center: Watercolors by Marion Cooper, North Star Gallery; Mixed Media by Del Chamblee, Rouser Room Gallery; Handcrafted Glassware by John Dingley, display cases. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Jan. 28. Free.
- Sun., Jan. 9---Super Bowl Party. North Star Ballroom, St. Paul Student Center. Giant TV screen, refreshments. 1:30 p.m. Free.
- Sun., Jan. 9---Jaques Gallery: Watercolors, Drawings and Prints by Alfred Martin. Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Jan. 18. Free.
- Sun., Jan. 9---University Gallery: "Purcell & Elmslie, Architects." Northrop Aud. 11 a.m.-4 p.m. Mon.-Fri., 2-5 p.m. Sun. Through Feb. 17. Free.
- Mon., Jan. 10---Coffman Gallery: Sculpture by Robert Saxon, Gallery I; Amnesty International Prints & Posters: Student Print Exhibit, Gallery II. 10 a.m.-4 p.m. Mon.-Fri. Through Jan. 27. Free.
- Mon., Jan. 10---Pinball Tournament. St. Paul Student Center. 10:30 a.m., continues all day. Free.
- Mon., Jan. 10---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Tues., Jan. 11---Dance: Royal Winnipeg Ballet. Northrop Aud. 8 p.m. \$7.50, \$6.50, \$5.50, \$4.50, \$3.50.
- Wed., Jan. 12---Scandinavian Days: Norway. Potpourri of slides, native dance & a film: "Vinland--A New Way." North Star Ballroom, St. Paul Student Center. Noon. Free.
- Wed., Jan. 12---Film: "The Boyfriend." North Star Ballroom, St. Paul Student Center. 2:30 and 7:30 p.m. 50¢.
- Wed., Jan. 12---American Film Series: "The Man in the Glass Booth." Theater-lecture hall, Coffman Union. 7:30 p.m. \$1.50.
- Wed., Jan. 12---U Film Society: "The Yakuza." Museum of Natural History aud. 7:30 and 9:30 p.m. \$1.50.
- Thurs., Jan. 13---Concert: Tokyo String Quartet. Scott Hall aud. 3:15 p.m. Free.

(OVER)

Fri., Jan. 14---Concert: Tokyo String Quartet, open rehearsal. Scott Hall aud.
10:15 a.m. Free.

Fri., Jan. 14---University Gallery: "Perspectives on Dane Rudhyar as Creative
Artist." Northrop Aud. 11 a.m.-4 p.m. Mon.-Fri., 2-5 p.m. Sun. Through
Feb. 20. Free.

Fri., Jan. 14---U Film Society: "Idi Amin Dada." Area premiere. Museum of
Natural History aud. 7:30 and 9:30 p.m. \$2.

Fri., Jan. 14---The Whole Coffeehouse: Mighty Joe Young with Storms and McGraw.
Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore
and Positively 4th Street.

Sat., Jan. 15---U Film Society: "Idi Amin Dada." Museum of Natural History aud.
7:30 and 9:30 p.m. \$2.

Sat., Jan. 15---The Whole Coffeehouse: Mighty Joe Young with Storms and McGraw.
Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore
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(A0;B1;F2)

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JANUARY 7, 1977

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FREE 'JACQUES BREL' PERFORMANCES IN MINNEAPOLIS

(FOR IMMEDIATE RELEASE)

Before they leave for a tour of Pacific military bases next week, the University Theatre cast of "Jacques Brel is Alive and Well and Living in Paris" will give two free public performances in Minneapolis.

Selections from the cabaret musical and other contemporary songs will be performed in a variety show format at noon Tuesday (Jan. 11) in the Twin City Federal Atrium in downtown Minneapolis and at 12:05 p.m. Wednesday (Jan. 12) in Rarig Center on the University's West Bank campus.

The cast of the production, which was presented last fall at the University, has been selected by the USO (United Service Organization, Inc.) to tour Korea, Japan, the Phillipines, Okinawa, Guam and Hawaii beginning Saturday (Jan. 15) for about six weeks.

Kenneth Graham, professor and director of the University Theatre, is director of the seven-member group of theater students.

The tour is sponsored by the USO and the U.S. Department of Defense.

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(AO,2,30;B1)

(FOR IMMEDIATE RELEASE)

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EXERCISING CAN BE DANGEROUS,
Or, Your Sit-Ups May Get You

By Jeannie Hanson
University News Service

Maybe your holiday "exercise" program shaped up this way: If you weigh 125 lbs., you burned up a whopping 92 calories during each hour you spent talking with relatives, 59 calories for each hour you slept and 60 calories for every hour of television watching. Or, if you weigh 178 lbs., you used 85 calories an hour watching television and 213 calories an hour driving over the river and through the woods to Grandmother's house.

"Exercise" like this hardly helps the post-holiday diet--a few Christmas cookies compensate quickly for the burned calories--and it certainly does little for physical fitness, according to Robert Serfass, physical education professor at the University of Minnesota.

But if you plan to begin a crash exercise program, Serfass adds a cautionary note: exercise can be harmful and sometimes dangerous.

Certain exercises can damage the shoulders, the spine and the abdominal muscles, according to Paula Page, recreational specialist at the University of Minnesota.

Too many pull-ups, push-ups and circling of the arms in a forward direction can shorten the pectoral muscles and hurt the shoulders, she said. Bending the spine back while lying on the stomach can lead to a swayed back. And some of the most popular exercises--sit-ups and leg lifts--actually hurt the abdominal muscles instead of strengthening them. When done with the legs straight out and the feet down, sit-ups exercise the side hip muscles but weaken the stomach muscles, Page said. To exercise the stomach muscles, sit-ups should always be done with the knees bent up and the body curling up towards them, Serfass said.

(Information about harmful exercises is available in a pamphlet "Basic Bodywork" from the American Medical Association, 535 North Dearborn Street, Chicago, IL 60610.)
(MORE)

Any exercise can be harmful if not done properly. Women who run with their backs straight up can compress their internal organs. This is not dangerous, but women should not continue if they feel pain, Page said.

"The biggest problem is trying to overcome 10 years of a sedentary life-style in two weeks," Serfass said. People, especially males over 30, should not go out and run two miles in a burst of New Year enthusiasm. They could experience anything from blisters to a heart attack. Even simple aches and pains then encourage them to drop their exercise program completely.

Start with a few calisthenics and some brisk walking, Serfass advised. Include a walk to your doctor's office if you are over 30. Those who plan strenuous exercise should have an exercise electrocardiogram first, to determine their heart-lung health while exercising.

Once the medical overhaul is over, a good exercise program should have three developmental components, according to Serfass: muscle strength, flexibility and heart-lung fitness.

Adequate muscle strength can be developed with exercise from tennis to chin-ups to weight-lifting. Isometrics can help at the beginning but have limited value (the muscle is usually only exercised at one angle) and can drive the heart rate and blood pressure to a danger level in people with cardiovascular problems, Serfass said.

Flexibility of muscle and joints can be developed with calisthenics, tennis, volleyball, racquetball and other exercises. Flexibility becomes especially important to maintain as people get older, Serfass said.

Heart-lung fitness is the third important exercise component. The intensity, frequency and duration of the exercise are all important. Twenty to thirty minutes three times a week is required. Swimming, walking fast, running and jogging are all appropriate.

To find your optimum exercise rate, test yourself, Page suggests. Take your pulse rate before exercising. Then do mild exercise and take the rate again. Next, do three minutes of fast running, stop, and take your pulse again. If you are young

(MORE)

and your medical check-up was good, part of your fitness goal should be to exercise until your pulse is 80 per cent of the third score.

According to Serfass, fitness can be achieved even at 60 per cent of your maximum capacity, and each person's capacity is different, depending on things like age, fitness level and heart-lung health. Fitness should be achieved slowly and gradually and without undue strain and pain, he said.

"There are no short-cuts," Serfass said. Exercise programs promoted as gimmicks--"five minutes a day to a new you"--should always be suspected. The hardest part of an exercise program may not be the blisters and sweat--it's finding the time to make exercise a habit.

And there are no excuses. Exercise does not make you hungrier, Serfass said. "Light to moderate exercise is actually an appetite depressant." And a diet plus exercise results in more fat loss, as opposed to mostly water loss in a diet without an exercise component.

Heart-lung fitness has other benefits, Page said. Sleep, breathing, circulation, strength and even sexual function improve as you exercise.

Muscle strength and flexibility also improve fitness. "Americans are now known internationally for the fitness of their finger and wrist muscles," said Page. Finish turning the pages of this newspaper and get going.

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(A0,23;B1,5;C0,5;D0,5;E3,23;G29)

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'U' FOUNDATION TO RECEIVE
ROCHESTER BUILDING

(FOR IMMEDIATE RELEASE)

The Boutell Furniture Co. building in Rochester is being given to the University of Minnesota Foundation for use by the University's Continuing Education and Extension (CEE) Center in Rochester.

The structure, built in 1968 at the southeast corner of Highways 14 and 52, is being donated to the University by Morris T. Friedell, a Chicago physician, and his brother, Hymer L. Friedell, a Cleveland physician.

The \$1.2 million building has a \$600,000 mortgage which will be assumed by the University Foundation, which solicits and administers private gifts to the University.

Russell May, director of the Rochester extension center, said the center would occupy 10,000 square feet of the single-story building. Last year, the CEE center offered 229 courses with an enrollment of 5,627.

May said the building also would be available to house the administrative offices and classroom areas for the Regional Post-Secondary Education Consortium, which includes the University, Rochester Community College, the Rochester Area Vocational-Technical Institute and other private and public universities and colleges in southeastern Minnesota.

"The Rochester Center is currently housed in a building scheduled for demolition," said Robert J. Odegard, executive director of the University Foundation. "This generous gift by the Friedells will provide excellent facilities for University programs in the area."

More than 30 members of the Friedell family have graduated from the University of Minnesota since the family emigrated from Russia in the early part of the century, according to Minneapolis attorney Gerald Friedell, who was instrumental in arranging the gift.

(MORE)

Morris T. Friedell, a practicing surgeon, graduated from the University Medical School in 1936. His wife, Barbara Fishbein Friedell, received a degree in medical technology. Their son, Peter, graduated from the Medical School in 1974.

Hymer L. Friedell, director of the department of radiology at University Hospitals in Cleveland, received both a medical degree and a doctoral degree in radiology from the University of Minnesota. His wife, Miriam Lipser Friedell, received a degree in medical technology.

May said the building would allow the University to offer daytime and evening programs consistently. "For the first time, upper-division and graduate level programming can be offered in a visible, convenient location to the residents of southeastern Minnesota," May said.

Since the furniture store closed several years ago, the Friedell brothers leased the building to IBM for warehouse space. It has been vacant since November.

-UNS-

(AO,1,15;B1;CO,1)

UNIVERSITY OF MINNESOTA
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JANUARY 10, 1977

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MTR
1/10/77
JHP

MEMO TO NEWS PEOPLE

A close vote is expected Friday (Jan. 14) when the University of Minnesota Board of Regents decides whether or not to allow the students to purchase and manage an FM radio station using student fees.

A decision on the proposed commercial non-profit station was postponed at the December board meeting and will be discussed again at a meeting of a committee of the whole board at 8:30 a.m. Friday in the Regents' room, 238 Morrill Hall.

The regular monthly meeting of the board will follow at 10:15 a.m. in the same room.

The ad hoc committee on land use at the Rosemount experiment station will meet at 10 a.m. Thursday in the Regents' room.

The physical plant and investments committee will meet at 1:15 p.m. in 300 Morrill Hall to discuss portions of the legislative building request and University land acquisition policies.

The faculty and staff affairs committee will meet at 1:15 p.m. in the Regents' room.

At 3 p.m., the student concerns committee will meet in the Regents' room and the educational policy and long-range planning committee will meet in 300 Morrill Hall.

The new student representatives to the regents' committees will sit in on the committee meetings Thursday.

-UNS-

(AO,1;B1;CO,1)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
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Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
January 10, 1977

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PEAT COULD BE KEY TO
MINNESOTA'S ENERGY FUTURE

By Sunita K. Yawalkar
University News Service

Minnesotans depend almost entirely on other states for their supply of coal and lignite to fill energy needs. With Minnesota's limited storage facilities, even a three-day strike by the mining or transport companies could lead to cold hearths in cold homes.

But if worse came to worse, Minnesota could depend on an energy source much closer to home--a source which now occupies about seven per cent of Minnesota's land. That source is peat.

Minnesota's peat supply occupies 7.2 million of its acres and amounts to 50 per cent of the useable peat in the U.S.. Alaska's supply is much larger but mostly in the Arctic regions and not very accessible.

According to Rouse S. Farnham, University of Minnesota professor of soil science, Minnesota's existing peat supply--if used as fuel alone--could supply energy to Minnesotans at the rate of their growing demands for another 65 years. By contrast, Iran's oil wells are expected to run dry in the next 40 years at the current rate of consumption.

The economic and environmental advantages of using peat rather than other resources are many. Coal, with all its mining and transport expenses, costs nearly \$15 per ton. On the other hand, increases in railroad prices and oil embargoes will not raise peat prices since peat is already close at hand. Likewise, storage is not a problem since peat could be "harvested" when it is needed.

But what is peat? "It's a low rank coal that looks quite a bit like soil," Farnham said. "It is formed when bog plants die and accumulate in a saturated environment such as undrained glacial lake basins, depressions and wet soil sites."

The most extensive peat lands in Minnesota are in the northern counties like Koochiching, Beltrami, Aitkin and St. Louis, some of these having well over a million acres of peat.

Farnham emphasized though, that using peat as the raw material for energy is only one of its many possible uses. Peat can be used in pollution abatement, in agriculture--for farming on peat lands or as a soil conditioner--and as the raw material in making plastics, nylons and other synthetics. In Scotland, it is used for distilling Scotch whiskey.

(MORE)

Peat lands also act as "biological factories" where micro-organisms convert minerals from the atmosphere into basic building blocks of proteins which all organisms need. Wetlands are the most biologically productive habitats and are important for the continued support of many life processes.

Peat also may be useful in controlling pollution. A "peat filter" designed by University of Minnesota researchers already is being used by the U.S. Forest Service and by municipalities in a number of states to treat waste water. At the Cass Lake camp ground in Minnesota, this peat filter is designed to serve a thousand people a day during summer.

The mechanism of this filter, Farnham said, consists of three basic layers: green grass on top, a one-foot peat layer in the middle and a two-foot sand layer at the bottom. Waste water, when it is passed through this circular "golf green filter bed," is filtered of all its phosphorous, nitrogenous and organic waste. This water is safe even if it goes back to the lake or the river or seeps into one of the drinking water wells of the camp sites. A regular waste-treatment unit can cost half a million dollars but a peat filter costs less than one-fifth as much.

The trapped oxygen-containing air spaces in the peat nurture bacteria that feed upon the waste water and transform the pollutants into harmless substances. Every winter, when the camp grounds are closed, the bacteria become dormant and rejuvenate in spring.

These filters have been approved by the Environmental Protection Agency. Other regions, such as New England, plan to use these filters in the near future and the interest is growing.

Agriculture is another major area of peat use on which much research has been done at the University of Minnesota. Peat lands are ideal soils for vegetables such as carrots, potatoes and radishes and special crops like wild rice and cranberries. Peat also can be mixed with other soils to improve their quality. The "soil" that one buys for potted plants or home gardening is often predominantly peat or a peat mix.

The real advantage of peat "mining" is that it does not have to be mined in the traditional sense of "digging holes." Peat lies on the surface of the earth, varying in depth from 6 to 20 feet. Harvested peatlands are not an environmental problem like exhausted coal or lignite mines.

"These are essentially unsightly waste lands," Farnham said, "while peat 'mines' can be used for planting crops or trees or creating wildlife breeding lakes and wetlands."

(MORE)

Peat has been overlooked as an energy source largely because it was thought that solar or nuclear energy would provide the answer to shortages before fossil fuel resources were depleted. Also, peat has a high moisture content and must be dried before it can be used.

Nevertheless as centuries of experience in Ireland, Finland, Russia and other European countries show, peat can be used for fuel as profitably as the conventional sources.

Awareness of this resource is growing. In 1980, the International Peat Congress is scheduled to meet in Duluth, Minn.

"Peat is something that has been long neglected as a 'total resource.' It is time that the state investigated its full potential and uses and nonuses," Farnham said.

-UNS-

(AO, 4, 18, 34; B1, 2, 9; E18; G7, 8)

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JANUARY 11, 1977

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U OF M TO OFFER
CREDIT FOR 'ROOTS'

(FOR IMMEDIATE RELEASE)

"Roots," a best seller that traces author Alex Haley's family history back to The Gambia, Africa, will be the basis for a home-study course offered by the University of Minnesota.

A forebear of the Haley family was stolen from The Gambia, Africa, and shipped to colonial America before the American Revolution. The course covers the transition from this family to the typical experience of American blacks today.

A \$6 million week-long series of dramatizations inspired by "Roots" will be broadcast on KMSP-TV, Channel 9, beginning Jan. 23. Viewing of the telecasts will be required of students who enroll in the course.

The course will be administered by the University's Extension Independent Study Department in cooperation with the Afro-American studies and history departments. Lansine Kaba, associate professor of history, and Geneva H. Southall, chairman of the Afro-American studies department, will coordinate the instruction.

Kaba, a native of West Africa, acted as consultant to the author of "Roots." Haley's ancestor, Kunta Kinte, upon whom "Roots" is based, came from the same culture in West Africa as Kaba. Southall will concentrate on the black experience in America today.

Participants in the course may earn four credits and all of the coursework, including registration, can be completed by mail. Tuition is \$62. Registration will continue through Feb. 11. For more information contact the University of Minnesota Extension Independent Study Department, 27 Westbrook Hall, 77 Pleasant St. SE., Minneapolis, Minn. 55455, telephone 376-4925.

-UNS-

(AO,2,8,9;B1)

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UNIVERSITY STUDENTS PLAN
DANCE-A-THON FOR JAN. 21-23

(FOR IMMEDIATE RELEASE)

University of Minnesota students have set a goal of \$60,000 for their third annual Muscular Dystrophy Dance-A-Thon to be held Jan. 21 through 23 in Coffman Union Great Hall on the University of Minnesota Minneapolis campus.

This year's registrations have already surpassed 65, the number of couples that raised \$20,000 in last year's dance-a-thon, according to dance-a-thon committee member Charlie Stewart. Forty couples raised \$8,600 in the first dance-a-thon in 1975. Stewart said couples this year will collect pledges prior to the dance in an effort to eliminate some money-collection problems that have developed in previous years.

Students will dance for 49 hours, beginning at 8 p.m. Friday, Jan. 21, and continuing through Sunday, Jan 23, until 9 p.m. There will be two five-hour breaks and a 15-minute break every three hours during the dance-a-thon.

The dance-a-thon will be open to the public from 8 p.m. to 1 a.m. Friday, 1 p.m. to 1 a.m. Saturday, and Sunday from noon until 9 p.m. Admission will be \$2.

University student Paul Schroeder will repeat his goldfish swallowing effort for the dance-a-thon and will swallow one goldfish for every \$500 raised.

Special activities planned for the dance-a-thon weekend include a limbo contest, belly dancing, a bagpipe performance, square dancing, a karate demonstration and a pie throw.

-UNS-

(A0,7,23;B1)

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'SAMPLERS' ARE INEXPENSIVE
INTRODUCTION TO 'U'

(FOR IMMEDIATE RELEASE)

Everything from cheese making, to sex education, to magic, witchcraft, Christianity, and stock investing will be offered in \$1 "Sampler" lectures at the University of Minnesota this winter.

"Sampler" lectures allow participants to sample University extension courses without investing the time or money involved in regular course work.

No preparation or prior academic experience is necessary to attend the lectures and each lecture, although part of a regular evening extension course, is self-contained.

Advance registration is not required. The \$1 fee per lecture will be collected at the door and people will be admitted as space permits. Those 62 years of age or older may attend free of charge. For further information, contact Continuing Education and Extension, telephone 373-3039.

Following is a list of "Sampler" lectures and their dates and times:

- "1913: Modern Art Comes to America," Tuesday, Jan. 18, 7:30 p.m.
- "How We Acquire Our Native Language," Thursday, Jan. 20, 6:20 p.m.
- "Making Cheese at Home--Joys and Pitfalls," Thursday, Jan. 27, 6:30 p.m.
- "What to Tell Your Children About Sex," Monday, Feb. 7, 8 p.m.
- "The Role of the United States in the Middle East Crisis," Wednesday, Feb. 9, 7 p.m.
- "Black Street Poetry: Signifying, Dozens and Toasts," Tuesday, Feb. 15, 7 p.m.
- "Dream Interpretation From a Jungian Perspective," Wednesday, Feb. 23, 7:30 p.m.
- "Magic, Witchcraft and Christianity: From Ally to Enemy," Monday, Feb. 28, 6:30 p.m.
- "Investing in Common Stocks," Wednesday, March 2, 6:20 p.m.
- "The Evolution of Horses, or How The Zebra Lost Its Stripes," Tuesday, March 8, 6:20 p.m.

-UNS-

(AO,3;B1,8)

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'U' FILM SOCIETY
ANNOUNCES OFFERINGS

(FOR IMMEDIATE RELEASE)

A preview of a new French film and a documentary on Ugandan president Idi Amin are part of the University Film Society's January offerings in the Museum of Natural History auditorium at the University of Minnesota.

"Idi Amin Dada" will be shown at 7:30 and 9:30 p.m. Friday (Jan. 14), Saturday (Jan. 15) and Wednesday and Thursday, Jan. 19 and 20.

"Cousin Cousine," a new film by Jean-Charles Tacchella, will be previewed Friday, Jan. 21 at 7:30 p.m., and an earlier film of Tacchella's "Voyage to Grand Tartary," is set for Saturday, Jan. 22, at 7:30 and 9:30 p.m.

Admission will be \$2.25 for the "Cousin Cousine" preview and \$2.00 for all other films.

-UNS-

(AO,2,32;B1)

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CREDIT-HOUR TUITION
PROPOSED FOR U OF M

(FOR IMMEDIATE RELEASE)

A University of Minnesota task force on student access will consider Friday a recommendation that students pay tuition by the credit rather than by the quarter, as they do currently.

There are now 16 different tuition rates for undergraduate and graduate programs at the University. A student registered for 11 credits or less pays tuition for each credit while a flat quarterly fee is paid by those students registering for 12 credits or more.

The Medical School charges a flat fee for nine credits or less and doubles the fee for 10 or more credits. The fee structure is similar for Graduate School but changes at the six-credit level.

David Berg, director of management planning and information services and a member of the task force subcommittee on tuition, said that the tuition-hour proposal calls for students who have earned less than 91 credits to pay \$15 per credit.

Students admitted to upper division would pay either \$15.50 or \$17 per credit hour, depending on the college in which they were enrolled.

The tuition credit-hour fee for health science programs would be \$20. Law school students would pay \$21.50 per credit and those in graduate school would pay \$25.50. Medicine, dentistry and veterinary medicine, both professional and graduate courses, would have a credit-hour fee of \$30.

Medical fellow specialists and graduate students not taking credit courses would pay \$65 each quarter.

"Under the proposal, 40 per cent of the students would pay more, 58 per cent less and two per cent would pay the same (as under the current structure)." Berg said.

(MORE)

The percentage of instructional cost met by tuition would remain at 25 per cent for the whole University system but the percentage would change slightly within various colleges.

Berg said that under the present system, a student may enroll for as many credits as desired every quarter and, if able to carry an extremely heavy course load, graduate in less than four years. That student could pay as much as 60 per cent less for a college education than the student who progresses at a normal rate.

Few students are able to complete their college program and accumulate the required credits for graduation within four regular school years. Scheduling conflicts for required courses and closed classes make it necessary for many students to take summer courses or extend their time in school.

Berg said there are some problems for students at Waseca, Crookston and Morris under the credit-hour tuition proposal. Students at the two University technical colleges now pay \$201 resident tuition per quarter. Under the new plan they would pay \$15 per credit-hour. While the majority of students in the College of Liberal Arts (CLA) on the Twin Cities campus take between 12 and 16 credits per quarter, many students at Waseca and Morris average between 15 and 20 credits per quarter.

Students taking 17 credits at either Waseca or Morris would have a tuition increase of \$55 per quarter and those taking 20 credits would pay \$100 more. A student at Crookston who now pays \$221 and takes 17 credits would pay an additional \$34 under the tuition credit-hour plan.

Berg said the credit-hour tuition proposal would cut down on the "shopping behavior" of many students that results in many classes being closed early. It would also eliminate the drastic jump in cost for a student who decides to add a course and finds that his or her tuition has doubled because the credits have passed the limit.

Under the proposed plan, a student in CLA, the largest collegiate unit at the University, would pay only \$4 more than the present tuition of \$221 if enrolled

(MORE)

TUITION

-3-

for 15 credits a quarter. Students taking less than 12 credits, would find their costs down. A part-time student taking 10 credits now pays tuition of \$185 but under the credit-hour plan would pay \$150.

The student access task force will meet at 1:30 p.m. Friday in Room 308 Coffman Union. The final report of the task force will be submitted to University President C. Peter Magrath.

-UNS-

(AO,7;B1;CO,7)

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JANUARY 13, 1977

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ART, ARCHITECTURE HISTORIAN
TO SPEAK AT UNIVERSITY

(FOR IMMEDIATE RELEASE)

James S. Ackerman, author of several major volumes on the history of art and architecture, will present a free public lecture at the University of Minnesota Monday (Jan. 17) at 3:15 p.m. in 125 Auditorium Classroom Building on the West Bank.

"Palladio Revisited" will be the topic for his talk, which is sponsored by the art history department with the assistance of the Minnesota Forum and funded, in part, by a grant from the University Center for Educational Development. It is being presented in honor of the retirement of Donald R. Torbert, professor of art history.

Ackerman, now a professor of fine arts at Harvard University, is the author of "The Architecture of Michaelangelo" (1961), "Art and Archaeology" (1963), "Palladio" (1966) and "Palladio's Villas" (1967). He is the editor of "The Future of the Humanities" (1969).

A second edition of "Palladio" is to be published soon. His talk at the University will be concerned with the social, political and economic conditions and the policies of church and government in Venice which helped to shape and influence the work of the 16th century Italian architect.

-UNS-

(AO,2,31;B1;CO,3)

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JANUARY 13, 1977

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS

Jan. 16-22

- Sun., Jan. 16---St. Paul Student Center: Watercolors by Marion Cooper, North Star Gallery; Mixed Media by Del Chamblee, Rouser Room Gallery; Handcrafted Glassware by John Dingley, display cases. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Jan. 28. Free.
- Sun., Jan. 16---Jaques Gallery: Watercolors, Drawings and Prints by Alfred Martin. Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Jan. 18. Free.
- Sun., Jan. 16---University Gallery: "Purcell & Elmslie, Architects," through Feb. 17; "Perspectives on Dane Rudhyar as Creative Artist," through Feb. 20. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-3 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Mon., Jan. 17---Coffman Gallery: Sculpture by Robert Saxon, Gallery I; Amnesty International Prints & Posters: Student Print Exhibit, Gallery II. 10 a.m.-4 p.m. Mon.-Fri. Through Jan. 27. Free.
- Mon., Jan. 17---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Mon., Jan. 17---Lecture: "Palladio Revisited" by James S. Ackerman. 125 Auditorium Classroom Bldg. 3:15 p.m. Free.
- Mon., Jan. 17---Poetry Reading: William Meissner. Lower concourse, Auditorium Classroom Bldg. 8 p.m. Free.
- Wed., Jan. 19---Scandinavian Days: Denmark. North Star Ballroom, St. Paul Student Center. Noon. Free.
- Wed., Jan. 19---Film: "Rosalie." North Star Ballroom, St. Paul Student Center. 2:30 and 7:30 p.m. 50¢.
- Wed., Jan. 19---Discussion: "Film and Literature" with J. Dudley Andrew. 305 Lind Hall. 3:15 p.m. Free.
- Wed., Jan. 19---American Film Series: "The Maids" by Jean Genet. Theater-lecture hall, Coffman Union. 7:30 p.m. \$1.50.
- Wed., Jan. 19---U Film Society: "Idi Amin Dada." Museum of Natural History aud. 7:30 and 9:30 p.m. \$2.
- Thurs., Jan. 20---Recital: Jean-Pierre Rampal, flute. Scott Hall aud. 11:15 a.m. Free.

(OVER)

CALENDAR

-2-

- Thurs., Jan. 20---U Film Society: "Idi Amin Dada." Museum of Natural History aud.
7:30 and 9:30 p.m. \$2.
- Fri., Jan. 21---Concert: Barb With. The Whole Coffeehouse, Coffman Union.
Noon. Free.
- Fri., Jan. 21---U Film Society: "Cousin Cousine." Museum of Natural History aud.
7:30 p.m. \$2.25.
- Fri., Jan. 21---Muscular Dystrophy Dance-A-Thon. Great Hall, Coffman Union.
8 p.m.-1 a.m. \$2.
- Fri., Jan. 21---The Whole Coffeehouse: Josh White, Jr. with Charlie Maguire.
Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore
and Positively 4th Street.
- Sat., Jan. 22---Chess Tournament. 303 Blegen Hall. 8:30 a.m. \$2 entry fee.
- Sat., Jan. 22---Jaques Gallery: "The Tallgrass Prairie." Museum of Natural History.
9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Feb. 20.
Free.
- Sat., Jan. 22---Table Tennis Tournament. Recreation/outings center, Coffman Union.
9:30 a.m. \$2 entry fee.
- Sat., Jan. 22---Muscular Dystrophy Dance-A-Thon. Great Hall, Coffman Union. 1 p.m.-
1 a.m. \$2.
- Sat., Jan. 22---U Film Society: "Voyage to Grand Tartary." Museum of Natural
History aud. 7:30 and 9:30 p.m. \$2.
- Sat., Jan. 22---The Whole Coffeehouse: Josh White, Jr. with Charlie Maguire.
Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore
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-UNS-

(A0;B1;F2)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
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Telephone: (612) 373-5193
January 13, 1977

CHINCHILLAS, BABIES, MONKEYS HELP
UNDERSTANDING OF HUMAN LANGUAGE

By Jeannie Hanson
University News Service

Chinchillas are not chatty animals. Month-old babies cannot hold up their end of a conversation. Chimpanzees can't even manage cocktail party chit-chat. Yet all of them, along with some stroke patients, are teaching us a lot more about human language.

The latest research lifts a little more of the mystery of how we understand and produce language and to what extent we share this ability with animals.

"Chinchillas may seem an unlikely choice for language research," said Charles Speaks, professor of communication disorders at the University of Minnesota, but their inner ears are very similar to those of humans.

They have been found able to distinguish between "p" and "b" and between "d" and "t" almost as well as people can. Four-week old babies can hear these differences just as well.

However, researchers are quite far from unlocking the intricacies of human language, Speaks said. The brain is considerably more complicated than the most advanced computer and attempts to map its language center may be misguided because there are so many different aspects of human language production and understanding.

Language sounds, noise and music are processed in the temporal lobes of the brain, which lie above each ear, Speaks said. But music processing seems to occur mostly on the right side and speech mostly on the left side of the brain.

Most right-handed people seem to have their main "language center" on the left side, while many left-handed people seem to have theirs on the right side, he said. For both groups, the less dominant speech center is generally more primitive, merely interpreting things like pitch and loudness changes, Speaks said.

(MORE)

Damage to the right hemispheric lobe--from a stroke, for example--does not significantly impair language. But damage to the left speech center generally does. The two language centers are also somewhat versatile, with one hemisphere developing to compensate for damage in the other.

Another part of the brain that seems to play an important role in human language is the corpus callosum. This nerve "highway" for language information between the two brain hemispheres can help compensate for a damaged speech center on either side. Sounds coming in one ear can go to the nearby sound processing center, or cross over through the thick rope of nerve fibers to the other sound center, or do both.

The crossover via the corpus callosum actually may be the more efficient way, Speaks said. Right-handed people (with their main speech centers on the left) can usually hear speech slightly better with their right ear and hear music (usually processed on the right side) slightly better with their left ear, Speaks said.

Some of Speaks' recent research has been with people who have a corpus callosum that is intact but a speech center that is partly damaged by stroke, brain hemorrhage, injury or surgery.

Special equipment in his lab directs a different sound into both ears. The subjects' brains will "hear" the sound from the ear on the damaged side much more clearly. The ear on the opposite side hears, but not nearly as well.

"We're not sure yet why this happens," Speaks said. Is the corpus callosum passageway the best way for speech information to travel? Or does the damaged brain area garble the signal from its nearby ear? Or both? Researchers aren't yet sure how we interpret what we hear.

Even the complicated activity of hearing speech is only a small part of our language ability however. Other aspects, Speaks said, include constructing intelligible grammar, intentionally communicating, representing objects and ideas through words, memorizing, combining visual and auditory information, understanding cause and effect and reflecting on our activities.

(MORE)

Language research with chimpanzees in other labs indicates that they may be competent along these lines too, Speaks said, even though chimps don't have the voice apparatus enabling them to talk.

"Gimme tickle gimme" was one semi-grammatical sentence invented by a chimp. Another one invented this sentence, with a plastic disc for each word: "Sarah insert banana in pail, apple in dish." She also designed a method of expressing plurals, Speaks said.

Intentionally communicating is another important aspect of human language, according to Speaks. One chimp offered food pellets in exchange for sips of coffee from her experimenters on a break.

Representation--using one thing for another--is also key to speech. Still another chimp spontaneously showed a picture of iced tea to a friend and dragged the human to the refrigerator.

Memory and visual-auditory coordination has also been shown in chimps and they can understand cause and effect. One was shown a whole apple and a cut apple with an empty space left in between. She chose a knife over a bowl of water and a pen to complete the "sentence."

"But I have yet to hear of chimps or chinchillas doing language research in labs like these," Speaks said. Perhaps humans are the only ones capable of reflecting on their language production. There is much more reflection and study necessary before human language will be fully understood, Speaks said.

-UNS-

(AO,6;B1,9;CO,6;DO,6;E6;G29)

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JANUARY 14, 1977

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REGENTS REJECT PROPOSED
STUDENT-RUN FM STATION

(FOR IMMEDIATE RELEASE)

A proposed student-run FM radio station was so soundly defeated by the Board of Regents Friday that there is little chance they will be considering the issue again for some time.

"I think, judging from the emotional climate we're in now, that it would be very difficult to resurrect it," said the strongest advocate of the plan, James Townsend, president of the University Student Telecommunications Corporation (USTC).

The plan called for the students to purchase an existing Twin Cities FM station for up to \$1.3 million and to finance it with a 50- to 60-cent fee increase attached to the \$1.18 currently collected from each student per quarter to operate USTC's television learning center.

The proposal was vigorously debated in December by what appeared to be an evenly divided Board of Regents. By Friday, however, the vote was 10-1 against the station, which had the support of University President C. Peter Magrath.

Student Regent Michael Unger was the only regent to vote in favor of the plan which students began working on 16 years ago.

"This proposal has come to the board highly recommended," Unger said, citing the support of student government, the student newspaper, faculty organizations, the departmental student groups in journalism, speech and business administration, and a committee which Unger had chaired.

Regent Robert Latz of Golden Valley had supported the proposal last month, but said the plan came before the board at an inappropriate time.

"We're asked to vote for the expenditure of \$1.3 million on something which I would say is not a necessity," Latz said, citing a proposed 25 per cent tuition increase and legislative requests for staff salary increases as more important issues.

(MORE)

"In an atmosphere of no new taxes, the adoption of this proposal is inimical to the best interests of this institution," Latz said.

Regent Erwin L. Goldfine of Duluth said he agreed with Latz' argument that the plan was not sound in light of the fiscal pressures on the University. "None of my reasons involve the pressures of the broadcasting industry," Goldfine said.

"This is a unique proposal, one of the soundest and most innovative things to come from the students. It's an educational device and a service device," Unger said. Goldfine and Latz agreed that the plan was well presented and supported by the students.

In other action, the board renewed the contract of Paul Giel to be director of men's intercollegiate athletics for another six months at a salary rate of \$51,000 a year.

They named Robert L. Heller, 57, provost of the University of Minnesota campus in Duluth. Heller has been acting provost since Raymond Darland resigned a year ago.

The board also voted to accept a \$619,500 grant from the Consolidated Power Association and United Power Association for a faculty member to study the effects of high-voltage power lines on the environment.

The research is to be done by Sagar Krupa, assistant professor of plant pathology, if he can get access to the site to conduct his study of the possible generation of air pollutants and harm to plants by the controversial power line in Stearns County.

William Hueg, deputy vice president for agriculture, forestry and home economics, said Krupa has been denied access to the land to do the study by residents in the area.

"The question is really whether the research will be allowed to take place," Hueg said.

Regent Lauris Krenik, a farmer from Madison Lake, was critical of people who oppose the research. "There are people who don't want to shed any light on this subject. I don't know what their motivations are," Krenik said.

Hueg told the regents that the funding source of the grant would not influence the results of the research. He said there were no strings attached to the grant from the power associations.

"This gives us a unique opportunity to perform a public service, to make that data public," Latz said.

-UNS-

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JANUARY 17, 1977

NEWS PEOPLE: For further information
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'U' RESEARCHERS FIND PARADOXICAL RELATION
BETWEEN MALARIA AND NUTRITION

(FOR IMMEDIATE RELEASE)

In terms of morbidity and mortality, malaria is much more important than cancer, heart disease, diabetes or the recently much publicized swine flu.

One million children die of malaria on the African continent each year. More than 2 million cases of this disease occur annually in India and, as the World Health Organization figures show, more people die from malaria in the world than from any other disease.

This killer has struck the United States too and taken its toll of victims. Some time ago, a minor epidemic of malaria occurred in California because of the infected hypodermic needles used by drug addicts.

Working at University of Minnesota Hospitals, a team of doctors and scientists has come up with an interesting correlation between malnourishment and the severity of malarial infection. John W. Eaton, assistant professor of medicine, will be presenting a paper based on these findings at the annual meeting of the American Association for the Advancement of Science (AAAS), in Denver this February.

According to Eaton, there is a good deal of evidence that malnutrition (i.e. simple starvation) will decrease the severity of malaria infection, which is caused by the bite of mosquitoes and transmitted into the human blood stream.

Specific deficiencies of various vitamins, nutrients and minerals also have been found to lessen the severity of malaria. On the other hand, the incidence of disease may suddenly rise in areas known to have a high incidence of the disease already when an inadequate diet is supplemented with vitamin-rich nutrients. These findings are contrary to the popular belief that starving people are more susceptible to all diseases.

(MORE)

While on a study tour of Africa, Prof. John Murray of the University of Minnesota medical school made some surprising observations on this point. He was studying malnourished nomadic herding tribes of Africa. During a recent drought and famine, these herding peoples, upon first medical examination, were relatively free of malaria. However, when they were given adequate nutrition many of them developed severe and sudden attacks of the disease.

The natural diet of these people consists of milk and rancid milk derivatives-- a diet particularly deficient in vitamin E. In contrast, the cereal grains with which they were fed are a rich source of this vitamin.

This observation seemed to tie in with the hypothesis the researchers were working with: that a deficiency of vitamin E might moderate the severity of the malarial infection and supplementation might enhance it.

In an experiment, some laboratory mice were fed a vitamin E deficient diet, while a control group was given the usual laboratory fare. Subsequent inoculation of E deficient and control mice with malaria parasites demonstrated that E deficiency is indeed protective against severe malaria infection.

"The attacks of the disease were more severe if the mice were well nourished and it is highly probable that this applies to human beings as well," Eaton said. "Further, we have reason to believe that other protozoal and viral infections are also suppressed by malnutrition."

Vitamin E is a potent anti-oxidant, a compound that protects against reactive forms of oxygen. It literally keeps the hemoglobin in the blood from rusting by preventing its oxidation. Adequate amounts of this vitamin, which are beneficial in the normal state, can be detrimental in malaria infections.

As Eaton explained, deficiency of the vitamin protects against severe malaria infection by predisposing the infected cell to premature destruction. Once the cell membrane breaks, the immature parasite is released and is likely to be destroyed.

On the other hand, if vitamin E is fed to an infected mouse (and presumably to infected people) the red blood cell membranes will remain intact until the parasite inside has completely developed. This mature parasite may then invade other

(MORE)

red cells worsening the infection.

Eaton and his co-workers have found that the malarial parasite within the infected blood cell generates hydrogen peroxide (H_2O_2), a powerful oxidizing agent, which then oxidizes lipids, a major component of all cell membranes. Accumulation of oxidized lipids may then lead to rupture of host cell membranes and liberation of the immature parasite. But, if vitamin E is present, it prevents both lipid oxidation and premature cell rupture.

Eaton emphasized that sudden intake of vitamin-rich nutrients by an undernourished person with a latent malaria infection can drastically shift the host-parasite balance. Where, formerly, the parasite was as undernourished as the host, it may start multiplying rapidly when the host's diet suddenly improves. This, in turn, may lead to the death of the host.

"Disease-carrying parasites appear to have methods of controlling their number. The host is, after all, their vehicle for feeding, maturation, migration and reproduction, and they would not want it destroyed," Eaton said. The parasite numbers rarely exceed the ability of the host to support them and this ability may be connected with the host's nourishment.

Two-thirds of the world's population has had a history of chronic malnutrition. As Eaton pointed out, only in very recent times have a few favored human groups had an adequate or indeed, superadequate intake of all requisite nutrients. This history of malaria occurrence has also been due to the climatic conditions in which the overpopulated, malnourished peoples of Asia and Africa exist.

"Most people in these continents still exist on a marginal diet and many may nurture latent parasitic diseases. Bombarding these people with vitamin-rich diets may give rise to an increase in the severity of these diseases," Eaton said.

The research paper that Eaton will deliver thus advocates caution when shipments of food are sent to famine areas. Many vitamin, mineral and metabolite deficiencies that diminish the severity of malaria infection, may occur naturally in human populations, especially during times of famine. Correction of such deficiencies in

(MORE)

MALARIA

-4-

famished human groups may actually cause more harm than good.

"It therefore seems advisable," the paper concludes, "that medical aid should accompany dietary supplementation in areas of the world where malaria and mal-nourishment co-exist."

-UNS-

(AO,22,23,24;B1,5,9;CO,5;DO,5;E3,17,23,24)

(FOR IMMEDIATE RELEASE)

(SECOND IN TWO-PART SERIES)

Feature story from the
University of Minnesota
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Telephone: (612) 373-5193
January 18, 1977

RESEARCHERS DEVELOPING SOLAR AID
FOR CONVENTIONAL POWER PLANTS

By Brian Lowey
University News Service

The Earth runs on solar power--without the sun we'd be done for. Harnessing this power for constant use in any particular location, however, presents some tough engineering problems. Some days there is just not enough sunshine. At night there is none.

We can avoid part of this problem by building our solar power plants in sunny climes, but the biggest problem--nighttime darkness--remains.

Two University of Minnesota professors, however, think they may have licked the night problem. Their idea is to take a conventional fossil fuel plant and modify it so that it would run on a mixture of fossil fuel and solar energy during the day and on fossil fuels alone at night.

The modified plant would be a conventional gas or oil-fired plant--one with a large parcel of unused land nearby. On this land a huge, circular field of mirrors would be installed surrounding a central tower. The mirrors, called heliostats, would be attached to a steering mechanism which would change their pitch as the sun moved across the sky.

The mirrors would reflect the sun's rays onto a boiler atop the central tower. Inside the boiler, water or some other fluid would heat, providing steam for the plant's turbines.

After sundown, or on cloudy days, the plant's regular oil or gas-fired boilers would take over and provide all the plant's power. In winter, the plant would run in this conventional manner almost 80 per cent of the time. In summer, however, this figure could be held to around 60 per cent.

The idea's practicality depends chiefly on whether the cost of the fuel saved during the lifetime of the plant can offset the cost of installing solar collectors. The Minnesota researchers say it can.

The researchers estimate that modifying a plant large enough to supply the power needs of a small community (about 22 megawatts) would cost between \$11 and \$15 million, but that within ten years after conversion the plant would have saved some \$13 to \$14 million in fuel costs.

(MORE)

"Costs will come down after the initial installation," said Mahmoud Riaz, associate professor of electrical engineering, who along with his colleague Vernon Albertson, professor of electrical engineering, developed the plan. "And the people with the money may soon find that it would be interesting for them to try this idea.

"The idea would use a ready technology," he said. "We already know how to build mirrors, boilers and towers. In addition, solar energy plants can be scaled up and down to meet individual needs--you can't do that with nuclear reactors. In fact, this may be the only way we can prove solar power can work until we can solve the thermal storage problem."

The thermal storage problem--the storage of heat energy from the sun for night-time use--is exactly what the hybrid plant is designed to avoid. Without some sort of energy storage, solar power plants would have to shut down for the night. Furthermore, the development of efficient energy storage methods could extend the range of solar power plants out of the sun belt and into cloudier, wetter climates.

But efficient thermal storage methods have so far eluded the grasp of science. "If the storage problem is not solved," Riaz said, "building hybrid plants would be a good fallback procedure."

Building hybrid plants would be an even better fallback procedure if they were cheaper. The single most expensive item in a solar-fossil fuel plant modification budget is the outlay for heliostats--the steerable mirrors. In the 22 megawatt plant there would be about 122,450 of them, each one 4'10" by 4'10". This works out to 2.8 million square feet of mirrors, and they will cost a bundle--accounting for roughly half the initial capital investment costs of the plant.

These mirrors might be replaced, however, with a new material being developed by a Minnesota firm, Sheldahl Inc. Scientists there are working on developing a flexible plastic mirror made with teflon and mylar. These plastic mirrors would work as well as the glass ones, and at a greatly reduced cost.

Cost-conscious utility companies, however, are not jumping at the hybrid idea. Instead, they are taking the more cautious route of sitting back and waiting for fuel costs to go up and heliostat costs to come down. But as the oil-producing nations gather to meet this winter, they may find they won't have a long wait.

-UNS-

(AO,4,18;B1,2,9;CO,4;DO,4;E4,9,18;G29)

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(FIRST OF A TWO-PART SERIES)

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SUNSHINE HAS LITTLE-KNOWN
ADVANTAGE AS ENERGY SOURCE

By Jeannie Hanson
University News Service

Sunshine as an energy source will probably be developed sooner than once was thought, but not soon enough to solve this winter's fuel problems.

Solar energy has an important advantage over other sources of energy--an advantage not recognized by most people. Energy from the sun is more efficient than other energy sources for several major items on our national energy agenda, according to Ernst Eckert, University of Minnesota Regents' Professor Emeritus of Mechanical Engineering.

"Why burn oil in a furnace at 2000 degrees F to warm a room to 70 degrees F?" Eckert asked, adding that it is inefficient and wasteful to burn coal or oil to generate electricity for such "low energy" tasks.

"Low energy" work includes such things as hot-water heating, home heating, air conditioning and some industrial processes--tasks which require heat at less than 200 degrees F. Together, these "low energy" jobs account for almost 40 per cent of energy needs in the United States.

Solar energy arrives from the sun especially suited for this kind of low energy work. Basic, flat solar collectors--currently available--can absorb the sun's rays and use them to heat water or air to between 150 and 180 degrees F. A simple mirror can concentrate the energy and raise the temperature still more. Basic solar energy hits the Earth at a yearly average of about 12 watts of power per square foot over the entire planet's surface, Eckert said.

Energy from the sun is often spoken of as the major energy bank for the future, but the future spoken of may arrive much sooner than most people think. "Our first major solar energy plant could be ready by 1990," Eckert said.

The first of these solar plants probably should be built very near a city or industrial plant, where its clean and efficient low-energy output could be used conveniently, Eckert said. No battles would have to be waged over its location since, when sunshine "spills," there is no danger.

"No technological breakthrough is necessary for this kind of solar plant," Eckert said, since most of the technology is already in use in solar home-heating units. The mirrors or lenses needed for extra concentration of the energy are

(MORE)

already in use too--a solar furnace equipped with giant mirrors is now in operation in France, creating heat at over 3000 degrees F. However, this type of plant is much more expensive than the basic pilot plant Eckert envisions for this country.

In the future, more elaborate solar plants in the U.S. could turn sunshine into electricity or feed heat to conventional plants to do so. The "waste solar heat" could be used for nearby heating needs, Eckert said, and almost no energy would be wasted. "This would be a big improvement over today's nuclear plants that discharge two-thirds of their energy into the air as waste heat--or coal-fired plants which waste 60 per cent of the energy they make," Eckert said.

Still further off is the use of very concentrated solar energy for high-temperature industrial processes such as metallurgy, he said. Sunshine also could be converted to hydrogen fuel, ushering in a "hydrogen economy."

Even further down the road is the use of huge solar satellites to collect solar energy from nearby space and beam it back to earth in microwave form. Solar cells to do this already have been developed and used in space flights but now are about 100 times too expensive. "It would take a massive national commitment in the future, like the effort to reach the moon, to accomplish this project," Eckert said.

Ultimately, if the United States were to convert to solar energy completely, about 5,200 square miles of collectors would be needed.

But long before solar energy is used for ambitious projects like these, a basic and efficient solar plant could be built for our low-temperature energy jobs. "I hope the Energy Research and Development Agency (ERDA) continues to increase funds for solar plant development," Eckert said.

If so, the time may not be far off when the child who starts a fire with a lens and a piece of paper in the sunshine will be close to understanding a modern pilot solar energy plant. It may not be elaborate, but it can do the job.

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NEXT: Possible answer to solar energy's nighttime problem.

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(AO,4,18;B1,2,9;CO,4;DO,4;E4,9,18;G29)

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JANUARY 19, 1977

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'U' THEATRE PRESENTS
MINNESOTA PREMIERE OF 'HAPPY END'

(FOR IMMEDIATE RELEASE)

The Minnesota premiere of the Brecht-Weill musical comedy "Happy End," directed by H. Wesley Balk, will be presented at the University of Minnesota Friday, Jan. 28, in the Stoll theater of Rarig Center.

Director Balk describes it as "a fun show with super songs--a genuine comedy with bittersweet songs that give it that special dimension."

"The play combines the best elements of 'The Threepenny Opera' and 'Guys and Dolls,'" he said.

The play, with lyrics by Bertolt Brecht and music by Kurt Weill, was adapted for American audiences by Michael Feingold. First presented in America by the Yale Repertory Theater, the show is now being prepared for a Broadway production.

The story is similar to that of the American musical classic "Guys and Dolls." Playing the leading roles of the Salvation Army lady, Lillian Holiday, and the toughest guy in a criminal gang, Bill Cracker, will be Andrea Herschler, a senior from White Bear Lake who was the University Theatre's Outstanding Undergraduate Actress of 1976, and David A. Ceasarini, a senior from Brookfield, Wis.

Performances between Jan. 28 and Feb. 13 will be at 8 p.m. Fridays and 5:30 and 9 p.m. Saturdays and at 3 p.m. Sunday, Feb. 13. Admission is \$3.50 for the general public and \$2.50 for students and senior citizens. Tickets are on sale at Rarig Center and Dayton's.

Balk, an associate professor of theater at the University, is also artistic director of the Minnesota Opera Company. He will be directing another Brecht-Weill production, "Mahagonny," for the company this spring.

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(AO,2,29,30;BI,CO,2;DO,2;E30;F13)

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JANUARY 19, 1977

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PRINTS ON EXHIBIT

(FOR IMMEDIATE RELEASE)

"People, Places and Things," a collection of intaglio prints from the University of Minnesota studio arts department, is on exhibit in the third floor corridor of Northrop Auditorium through March 11.

A variety of techniques was used to produce the approximately 30 works completed by studio arts undergraduate students between 1965 and 1976.

The third floor corridor is open from 8 a.m. to 5:30 p.m. Monday, Wednesday and Friday; from 8 a.m. to 8 p.m. Tuesday and Thursday, and from 2 to 5 p.m. Sunday. It is closed Saturday.

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JANUARY 1^o, 1977

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100 COUPLES REGISTERED
FOR U OF M DANCE-A-THON

(FOR IMMEDIATE RELEASE)

One hundred couples have registered to take part in the annual University of Minnesota dance-a-thon for muscular dystrophy set for this weekend in the Great Hall of Coffman Union.

Festivities will begin at 7:45 p.m. Friday and will continue until 9 p.m. Sunday, with two five-hour breaks, and a 15-minute break every three hours during the dance-a-thon.

The event will be open to the public from 3 p.m. to 1 a.m. Friday, 1 p.m. to 1 a.m. Saturday and Sunday from noon until 9 p.m. Admission will be \$2.

Julie Landwehr, University sophomore from Golden Valley, participated in last year's dance-a-thon and was named "Miss Energy" at the end of the dance.

"I love to dance and it was worth it. The feet were tired and sore but not the body. It was such a neat feeling when the dance finished," Landwehr said.

Another dance-a-thon participant and over-all winner of last year's contest, was Wendy Groth, University senior from Edina.

"It was a party experience," Groth said. She remembered the early morning hours between 2 and 4 a.m. as the most tiring.

Throughout the dance-a-thon there will be a number of special activities including gold-fish swallowing, a limbo contest, belly dancing, a bagpipe performance, square dancing, a karate demonstration and a pie throw.

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(FOR RELEASE ANY TIME)

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GIFTED CHILDREN NEED
SPECIAL ATTENTION FROM SCHOOLS

by Marilyn McPartlin
University News Service

For the gifted child, the prospect of challenging and fulfilling schooling is bleak. In general, the public schools are not adequately handling these children, according to Rosalyn Rubin, associate professor of special education at the University of Minnesota.

Defining a gifted child is difficult. "One can be gifted in many areas. In this society, we tend to stress school achievement and academic aptitude. Although we value talent in the arts, leadership abilities and social skills," Rubin said, "we focus on IQ scores to identify gifted children."

"Many parents don't realize how gifted their child is," Rubin said, "especially if the child is the first-born and the parents have no other children to compare him to."

When high ability is recognized, it is often the cause of concern for the parents. "One father called me asking how he could cope with the problems his four-year-old would have as a gifted child," she said. "Being gifted should not be seen as a problem--it's an asset in life. There are, of course, some problems associated with being deviant in any direction, but you can't think of being academically talented as a negative thing."

There is not sufficient research knowledge now available to tell us exactly what a parent should do to foster high ability in his preschooler. "Youngsters should be encouraged to expand their knowledge and acquire vocabulary in ways that are as natural as possible," Rubin said. "I would not suggest special structured learning sessions for bright preschoolers, but everyday opportunities can be used.

(MORE)

For example, when a parent is walking down the street with his child, he can say, 'There's an enormous rock--a great big rock.' This way the parent can both show and tell the child what new words mean."

Most high-aptitude youngsters have a wide variety of interests and tastes and can benefit from things drawn from many different intellectual age levels. "Try to give these children things they are interested in, try to explain things to them, but don't try to set up a curriculum and make them fit into it," Rubin suggested.

Once the gifted child reaches school age, the problem of fostering his talent becomes even more acute. "If the schools would offer individual instruction for all the children, they would be able to deal fairly with the gifted. But schools tend to make adjustments in the curriculum for the slow learners," Rubin said.

"In general, if a class is divided into reading groups, the top group is reading at its own grade level and the groups go down from there. Accelerated readers are seldom given work at their ability," she said.

"We don't acknowledge where these children are and, thus, we give them inappropriate schooling. Under the equal opportunity for education rulings now in effect in Minnesota, we have to provide appropriate material for the slow learners," Rubin said. "One could also argue that it is inappropriate to give accelerated children books for their grade level. We must develop their potential."

Much should be done to improve the education of gifted children in the schools, Rubin feels. "There is a lack of knowledge and understanding on the part of teachers on how to challenge and teach gifted children. Teachers too often 'reward' the gifted child who does his work quickly by giving him more work," Rubin said. "The schools should provide in-service training and the proper materials for the teachers. But not much is being done; the funding is just not available," Rubin said.

According to Rubin, early entrance into kindergarten is sometimes the answer, but there are many factors to balance. "Large and small motor coordination must be assessed because they are so basic to the curriculum of kindergarten and first

grade. For boys, especially, one must also balance the value of early entrance against the fact that the child will be smaller and younger than his classmates all through school," she said.

Early entrance is usually easier on a child than is skipping a grade later on because the child who enters early remains with the same group of children through school. However, neither early entrance nor grade-skipping solves the whole problem, Rubin said, since these children are generally academically more than one year ahead.

If gifted children are allowed to skip enough grades to bring them to the proper academic level, other problems get in the way. Although academically talented children tend also to be above average in social skills and physical abilities, they are not so far advanced as to fit in well socially and physically with children several years older, Rubin said.

"Each case must be assessed separately according to the family's value system," Rubin said. "A number of bright children don't want any attention brought to them. They are aware of the differences between them and their peers and don't want to be put where they belong academically. You must respect the wishes of these children."

Rubin advocates early entrance or grade-skipping to some extent for some children, but she does not believe they are the total answer. "We don't have the research evidence to know whether a child who does well as an early entrant might have done even better if he had waited another year."

What Rubin sees as the solution is an adjustment in curriculum. "We need enormously more flexibility in what we offer to and expect from these children in our schools," she said. "Individualized instruction for all children would allow each child to work to his potential."

-UNS-

(AO,16;B1;CO,16;DO,16;E6,16)

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JANUARY 20, 1977

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Jan. 23-29

- Sun., Jan. 23---Muscular Dystrophy Dance-A-Thon. Great Hall, Coffman Union. Noon-9 p.m. \$2.
- Sun., Jan. 23---St. Paul Student Center: Watercolors by Marion Cooper, North Star Gallery; Mixed Media by Del Chamblee, Rouser Room Gallery; Handcrafted Glassware by John Dingley, display cases. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Jan. 28. Free.
- Sun., Jan. 23---Jaques Gallery: "The Tallgrass Prairie." Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Feb. 20. Free.
- Sun., Jan. 23---University Gallery: "Purcell & Elmslie, Architects," through Feb. 17; "perspectives on Dane Rudhyar as Creative Artist," through Feb. 20; "People, Places and Things," through March 11. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., Jan. 23---Natural History Film: "This Land." Museum of Natural History aud. 2:30 p.m. Free.
- Mon., Jan. 24---Coffman Gallery: Sculpture by Robert Saxon, Gallery I; Amnesty International Prints & Posters: Student Print Exhibit, Gallery II. 10 a.m.-4 p.m. Mon.-Fri. Through Jan. 27. Free.
- Mon., Jan. 24---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Tues., Jan. 25---Lecture/Demonstration: Visual pattern, flexible cones by Robert Saxon. Gallery I, Coffman Union. 2:30 p.m. Free.
- Tues., Jan. 25---Film: "War Games" by Peter Watkins. Theater-lecture hall, Coffman Union. 7:30 p.m. Discussion follows film. Free.
- Wed., Jan. 26---Scandinavian Days: Sweden. North Star Ballroom, St. Paul Student Center. Noon. Free.
- Wed., Jan. 26---Lecture: "Television and Popular Culture" by Horace Newcomb. Theater-lecture hall, Coffman Union. 12:15 p.m. Free.
- Wed., Jan. 26---Film: "At Long Last Love." North Star Ballroom, St. Paul Student Center. 2:30 and 7:30 p.m. 50¢.
- Wed., Jan. 26---Lecture: "Television and Literature" by Horace Newcomb. 305 Lind Hall. 3:15 p.m. Free.
- Wed., Jan. 26---Billiard Tournament. Recreation/outings center, Coffman Union. 7 p.m. \$2 entry fee.

(OVER)

- Wed., Jan. 26---Bridge Tournament. West Bank Union Gallery, lower concourse, Auditorium Classroom Bldg. 7 p.m. \$2 entry fee.
- Wed., Jan. 26---American Film Series: "Galileo." Theater-lecture hall, Coffman Union. 7:30 p.m. \$1.50.
- Wed., Jan. 26---U Film Society: "La Chienne." Museum of Natural History aud. 7:30 and 9:15 p.m. \$1.50.
- Thurs., Jan. 27---Concert: University Jazz Ensemble. Great Hall, Coffman Union. 11:30 a.m. Free.
- Thurs., Jan. 27---Film: "War Games" by Peter Watkins. Theater-lecture hall, Coffman Union. 7:30 p.m. Discussion follows film. Free.
- Thurs., Jan. 27---U Film Society: "Pather Panchali." Museum of Natural History aud. 7:30 and 9:30 p.m. \$1.50.
- Fri., Jan. 28---Concert: Scott Alarik. The Whole Coffeehouse, Coffman Union. Noon. Free.
- Fri., Jan. 28---Natural History Film: "The Early Americans." Museum of Natural History aud. 12:15 p.m. Free.
- Fri., Jan. 28---U Film Society: "False Movement." Museum of Natural History aud. 7:30 and 9:30 p.m. \$2.
- Fri., Jan. 28---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 8 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Fri., Jan. 28---The Whole Coffeehouse: Luther Allison and Tim Sparks. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore and Positively 4th Street.
- Sat., Jan. 29---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 5:30 and 9 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sat., Jan. 29---U Film Society: "False Movement." Museum of Natural History aud. 7:30 and 9:30 p.m. \$2.
- Sat., Jan. 29---The Whole Coffeehouse: Luther Allison and Tim Sparks. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA Bookstore and Positively 4th Street.

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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MINNEAPOLIS, MINNESOTA 55455
JANUARY 24, 1977

MTR
N47
2/12

NEWS PEOPLE: For further information
contact RONAELE SAYRE, 373-7516

ENROLLMENT OF MINORITY WOMEN
INCREASES AT UNIVERSITY OF MINNESOTA

(FOR IMMEDIATE RELEASE)

Enrollment of minority-group women at the University of Minnesota increased fall quarter, but the number of minority-group men enrolled declined and the actual number of minority-group students remained nearly the same as last year, according to a report released today by the office of student affairs.

From ethnic background information supplied by better than 90 per cent of the student population at the time of application for admission, or through minority survey cards distributed at the time of registration, University officials arrived at a count of 1,182 minority-group women and 1,566 minority-group men this fall. Minority enrollment figures for fall quarter, 1975, were 1,128 women and 1,655 men. Blacks, American Indians, Asian Americans and Hispanic Americans accounted for 4.9 per cent of the University's fall-quarter enrollment of 56,138.

The enrollment increase for minority-group women was an extension of a system-wide increase in women's enrollment that accounted for the entire increase in enrollment from a year ago.

Specific increases of women were reported for blacks, with a total enrollment of 539 (an increase of 43), Hispanic-surnamed Americans, 112 (an increase of 23) and American Indians, 217, (an increase of seven). The only increase in minority-group male students was among black students, with a total enrollment of 595, up 15 from last year. All other categories registered declines.

On the Twin Cities campus, black students accounted for the largest increase among the minority groups. Black enrollment for fall quarter was 1,068 compared to 987 last year. The only other increase was among Hispanic-surnamed Americans with an enrollment of 292, an increase from 278 last year.

The largest increases in minority-group enrollment on the Twin Cities campus were in the College of Home Economics, which gained 25 students to achieve a minority-group enrollment of 67, and in General College, which gained 23 students for a total minority enrollment of 642.

The University of Minnesota Technical College at Waseca reported the only increase in minority-group enrollment among the coordinate campuses. Minority-group enrollment declined at Duluth, although the number of minority-group women has increased since last year.

(MORE)

Since 1972, minority-group enrollment at the University of Minnesota has increased 35 per cent, according to the office of student affairs report. During the same period, total University enrollment has increased by 12 per cent.

The largest increase has been among Asian Americans at 45.2 per cent, followed by American Indians at 43.7 per cent, blacks at 30.9 per cent and Hispanic-surnamed Americans at 16.1 per cent.

Alfredo Gonzalez, interim director of the Martin Luther King Program on the Twin Cities campus, said the figures show that progress has been made.

"There is much room for improvement, though, and I hope to see those results in the future," Gonzalez said.

FALL QUARTER MINORITY-GROUP ENROLLMENT

	<u>BLACKS</u> <u>1976/1975</u>	<u>AMERICAN</u> <u>INDIAN</u> <u>1976/1975</u>	<u>ASIAN</u> <u>AMERICAN</u> <u>1976/1975</u>	<u>HISPANIC-</u> <u>SURNAMED</u> <u>AMERICAN</u> <u>1976/1975</u>	<u>TOTAL</u> <u>1976/1975</u>
TWIN CITIES	1,068/987	359/400	706/757	292/278	2,425/2,422
DULUTH	36/33	69/75	102/108	9/9	216/225
CROOKSTON	3/11	9/17	0/0	9/10	21/38
MORRIS	23/37	19/20	8/5	3/2	53/64
WASECA	0/0	8/7	15/11	0/2	23/20
MAYO	<u>4/8</u>	<u>0/0</u>	<u>1/2</u>	<u>5/4</u>	<u>10/14</u>
TOTAL	1,134/1,076	464/519	832/883	318/305	2,748/2,783

-UNS-

(AO, 7, 8, 9, 10, 11; B1; CO, 10, 11)

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JANUARY 24, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

NORTHROP MUSIC EVENTS PLANNED

(FOR IMMEDIATE RELEASE)

Two major free public music events are planned for Northrop Auditorium the weekend of Feb. 4 through Feb. 6.

The University Symphony Band, directed by music instructor Mark Lammers, will perform in concert at 8 p.m. Friday, Feb. 4.

A concert at 3 p.m. Sunday, Feb. 6, will include performances by the University Wind Ensemble, directed by Lammers, and the University Brass Choir, directed by David Baldwin, assistant professor of music.

"Carmina Burana" by Carl Orff will be featured in concert by the 75-member symphony band. The program will also include works by Robert Washburn, Leonard Bernstein, Percy Grainger and Gioacchino Rossini.

The 51-member wind ensemble and the 15-member brass choir will play "Music for a Festival" by Gordon Jacob and works by Richard Strauss, Paul Hindemith, John Zdechlik, Giovanni Gabrieli, Joaquin Turin and John Krance, Charles Ives and Julius Fucik.

Both events are sponsored by the University departments of music and music education.

-UNS-

(AO, 2, 29; B1; CO, 2; D2)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5830
January 24, 1977

MTR
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JAH

EPILEPSY EVALUATION, TREATMENT
UNIT OPENS AT 'U' HOSPITALS

By Nancy Johnson
University News Service

A treatment program for people with difficult-to-control seizures has opened at University of Minnesota Hospitals.

"These people have problems in daily living," said Jean Johnston, nurse clinician with the University's Comprehensive Epilepsy Program (CEP). "A seizure may occur only once a month but still create difficulties at work or with a person's self-image."

Patients who have recurring epileptic seizures and are at least 12 years old will receive intensive evaluation and treatment by a team of specialists.

Portable equipment will be used to monitor brain activity over long periods during a three-to eight-week hospitalization. The time factor is important, according to Johnston, when measuring the affects of medications.

"It sometimes takes three to ten days to know if some drugs are effective. With some people the right drug or combination can be found; with others none will give control," Johnston said.

Epilepsy affects approximately 80,000 Minnesotans and four million Americans, according to Epilepsy Foundation of America (EFA) statistics. Epilepsy is a disorder of the central nervous system caused by abnormal electrical brain cell discharge which, in turn, causes a transient change in consciousness referred to as a seizure. Seizures may be brief or prolonged and behavior during a seizure varies from nearly unnoticeable eye-blinking to convulsive body movements.

The EFA estimates that half of all people with epilepsy can gain total control of seizures and another 30 per cent can gain partial control through prescribed anti-convulsant drugs.

But some people have difficulty controlling their seizures because they are unfamiliar with their medications, or forget to take them on schedule, Johnston explained. "We try to give these people basic information about the drugs and dosages. We look at their lifestyles and help them develop habits that lead to control."

Independence is encouraged in the epilepsy unit. Patients wear street clothes, make their own beds and eat in a central dining room. The point of the program is to prepare each individual to live as independently as possible, Johnston said.

(MORE)

When patients' goals have been met, they are referred back to their community doctors to continue their treatment plans.

Staff members develop a close relationship with patients' families and local community resources to assure that plans made at University Hospitals are followed through in the community, Johnston said.

Funded a year ago by the National Institute of Neurological and Communicative Disorders and Stroke, the CEP has focused on community and education services by providing information to patients, their families, and professionals in the fields of health, education and social service.

More than 30 research projects at the University and the Mayo Clinic are being supported by the CEP including an investigation of previous findings that children of epileptic mothers have a higher risk of seizure than children with epileptic fathers. Another investigator is testing Taurine, a new drug that has never been used in this country, and the Minnesota Center for Social Research is identifying the effects of seizures on the social and psychological adjustment of people who develop seizures after age 16.

People with epilepsy often have difficulty finding jobs for a variety of reasons, according to Florence Gray, CEP coordinator. Because of public attitudes or lack of confidence on the part of the person with epilepsy, the EFA estimates that 75 per cent of all people with epilepsy hold jobs beneath their capabilities.

"The unit at University Hospitals is the heart of the CEP's unique new approach to diagnosis and treatment of patients who have not been able to attain seizure control," said the program's director Robert Gumnit, professor of neurology.

-UNS-

(AO, 19, 22, 23, 24, 25; B1, 4, 5; CO, 5; D5; E17, 22, 23, 24, 25)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
January 25, 1977

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WHY CAN'T SCIENTISTS
TALK TO THE PUBLIC

By Jeannie Hanson
University News Service

Do you despair when you hear scientific terms like ipsilateral suppression model, spherules on shatter cone surfaces and multi-variate analysis?

Does the mere mention of neutrophil lysosomal enzyme release make your palms sweat?

If so, you are not alone. To most people, gel electrophoresis is just so much mumbo-jumbo, and this lack of understanding may have serious consequences for the future of scientific research.

"Scientists may be able to talk like this among themselves, but they obviously need a more common language for public use," says Richard Caldecott, dean of the University of Minnesota's College of Biological Sciences. Without good communication between scientists and the public, people will not be informed and scientific research will go unsupported, Caldecott said.

Some fields of science seem to have relatively little difficulty making themselves understood by the public because they touch on issues relevant to people's lives.

Medicine received a lot of public scrutiny when swine flu became a public issue. The controversy over the use of pesticides has made agriculture more familiar to readers of newspapers. Reading about pollution equipment has taught many people basic principles of engineering and a host of articles on food additives has made many familiar with nutrition.

Organized groups of scientists are now more likely to have information officers, according to Philip Tichenor, University of Minnesota journalism and rural sociology professor. The American Cancer Society and the American Association for the Advancement of Science are only two groups placing key importance on communicating with the public. Administrators in all scientific fields are becoming more and more adept at communicating, he added.

"A society that can absorb a flood of statistics and numbers--baseball statistics, octane ratings, wind-chill factors, horse powers and the like--should not have much trouble understanding scientific information," Tichenor said. In fact, journalism research indicates that including a few numbers in a news story actually helps in communicating scientific issues.

(MORE)

"But pure scientists, as opposed to applied scientists, seem to have trouble communicating," Caldecott said. Particle physics, fusion chemistry, botany and fundamental biology are not always seen as important by the public.

"Actually, an applied science like nuclear engineering can eat up 35 years of pure physics research in a three-year gulp," Caldecott said. Without a knowledge base there can be no practical know-how. But neither the nuclear physicist nor the nuclear engineer is accustomed to convincing the public of this, he added.

Why do communication problems between scientists and the public sometimes exist? Often there is a valid reason. "It is pretty hard to reduce the second law of thermodynamics, probability statistics or even Freudian theory to common sense," Tichenor said.

Added to this, the value system of pure science tends to be different from the public desire for useful scientific information to make fast decisions, Caldecott said. Pure scientists like to see their research used but know that it may not happen in their own lifetimes. The public and politicians are seldom so patient.

The so-called communication problem is often really a power problem, Tichenor said. Scientists want more research money and politicians want more quick and inexpensive results. Also, some scientists occasionally want to convince the public of a particular point of view, which can complicate the "communication gap."

Personality and peer-group factors can affect communication too, Caldecott added. Many scientists want to avoid making exaggerated claims for their research any may even shy away from the press for this reason. They do not want to be criticized by their colleagues for "showing off." Some may even feel "above" communicating with the public, he said.

But pure science builds the data base for tomorrow's progress, Caldecott said. "Basic chemistry and physics research will pay off as fusion energy in another 50 years," he said. The biology of cells may pay off in 20 years as a cure for diabetes. Genetic engineering may give us food plants that can grow without fertilizer. Basic immunology research--not politically glamorous projects--is what is likely to unearth a cure for cancer eventually," he said.

Money for basic research like this is drying up, Caldecott added. "Few politicians are willing to champion glamourless causes. We need statesmanship and major decisions on basic research, especially in areas like food production and energy."

One solution to the science communication problem, Caldecott said, would be a system of state level science and technology advisory councils. A group of scientists from universities and corporations in every state could be responsible for communicating priority needs and important results to their governor, legislators and public. This system of councils might ultimately report to the President.

TALK

-3-

In Minnesota, fresh-water pollution, public health and energy options (including self-sufficiency) could be key issues for investigation, for example, said Caldecott. In this way, basic and applied researchers could communicate with each other and the public without using confusing jargon.

-UNS-

(AO,4;B1,9;CO,4;DO,4;E4,6,9,19)

UNIVERSITY OF MINNESOTA
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100 CHURCH ST. SE.
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JANUARY 25, 1977

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CONSTRUCTION WORKER TO RECEIVE
UNIVERSITY POLICE COMMENDATION

(FOR IMMEDIATE RELEASE)

Donald Hall, 1256 Geltier Ave., St. Paul, held on for dear life when a temporary platform on which he and two other construction workers were standing collapsed Oct. 26 at the B-C Building construction site on the University of Minnesota Minneapolis campus.

As his fellow workers fell about 35 feet, Hall held on and counter-balanced the pieces of decking to prevent the debris from falling on top of the injured workers.

For his actions, Hall will receive a University of Minnesota Police Department commendation from President C. Peter Magrath at 3 p.m. Tuesday, Feb. 1, in the Regent's Room, 238 Morrill Hall.

Three University police officers also will receive departmental commendations for police work during the last six months.

Donald Demont will be recognized for the arrest of a suspect on Dec. 27, 1976, that resulted in the recovery of nearly \$3,000 of University property. Thirty vending machine thefts were solved following the arrest of a suspect by Dennis Siz. The man was arrested by Siz on June 10, 1976, counting the change from a vending machine he had broken into earlier.

Donald Westling will be honored for his actions on Aug. 6, 1976, when he risked his life to pull an individual back over the railing of the Washington Ave. bridge.

-UNS-

(AO,5;B1;CO)

UNIVERSITY OF MINNESOTA
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JANUARY 26, 1977

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NEWS PEOPLE: For further information
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LOPPNOW RECEIVES AWARD

(FOR IMMEDIATE RELEASE)

Merle Loppnow, assistant to the director of the University of Minnesota Theatre, has received a "special award for dedication to the American College Theatre Festival."

The award was presented at the Region One festival held recently in Fresno, Calif.

Loppnow, who will retire from the University staff in June, has attended and served as a judge or participant in most of the festivals held throughout the country since the intercollegiate program began nine years ago.

-UNS-

(AO, 2, 30; B1; CO; E30)

UNIVERSITY OF MINNESOTA
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JANUARY 26, 1977

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1/4/77
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NEWS PEOPLE: For further information
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C O R R E C T I O N

The University News Service release dated Jan.11, 1977, "U OF M TO OFFER CREDIT FOR ROOTS," contained an error. Lansine Kaba, associate professor of history who is teaching an independent study course on "Roots," was not a consultant to author Alex Haley.

Kaba is an authority on the culture and history of the Mandinka people, from whom Haley's ancestor, Kunta Kinte, was kidnapped by slave traders.

-UNS-

(AO, 2, 8, 9; B1)

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JANUARY 26, 1977

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NEWS PEOPLE: For further information
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'TALLGRASS PRAIRIE'
SUBJECT OF 'U' EXHIBIT

(FOR IMMEDIATE RELEASE)

An exhibition of photographs and illustrations of "The Tallgrass Prairie: An American Landscape" is now in the Jaques Gallery of the James Ford Bell Museum of Natural History at the University of Minnesota through Feb. 20.

The documentation of the prairie, its people and its heritage was assembled by photographer and preservationist Patricia Duncan and is being circulated throughout the United States by the Smithsonian Institution, Washington, D.C.

The Bell Museum is located at 17th and University Aves. SE. on the University campus in Minneapolis and is open to the public with no admission charge from 9 a.m. to 5 p.m., Monday through Saturday; until 9 p.m. Wednesday, and 2 to 5 p.m. Sunday.

-UNS-

(AO, 2, 31; B1; CO, 2)

UNIVERSITY OF MINNESOTA
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JANUARY 27, 1977

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Jan. 30-Feb. 5

- Sun., Jan. 30---Jaques Gallery: "The Tallgrass Prairie: An American Landscape." Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Feb. 20. Free.
- Sun., Jan. 30---University Gallery: "Purcell & Elmslie, Architects," through Feb. 17; "Perspectives on Dane Rudhyar as Creative Artist," through Feb. 20; "People, Places and Things," through March 11. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., Jan. 30---Natural History Film: "The Early Americans." Museum of Natural History aud. 2:30 p.m. Free.
- Mon., Jan. 31---St. Paul Student Center Galleries: Montage by Mary Helen Horthy, North Star Gallery; Photographs by Joe Gerber, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Feb. 25. Free.
- Mon., Jan. 31---Coffman Gallery: Photography by Rebert Sengstack and Lawrence Sykes. Gallery I and II. 10 a.m.-4 p.m. Through Feb. 24. Free.
- Mon., Jan. 31---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Mon., Jan. 31---Poetry Reading: Onwuchekwa Jemie. Lower concourse, Auditorium Classroom Bldg. 8 p.m. Free.
- Mon., Jan. 31---Recital: Mary Belanger, piano. Scott Hall aud. 8 p.m. Free.
- Tues., Feb. 1---Lecture: "The Significance of 'Roots' for Afro-Americans" by Mahmoud el Kati. Theater-lecture hall, Coffman Union. 8 p.m. Free.
- Wed., Feb. 2---Scandinavian Days: Finland. North Star Ballroom, St. Paul Student Center. Noon. Free.
- Wed., Feb. 2---Lecture: Cross Country Skiing by Tim Knapp. Theater-lecture hall, Coffman Union. 12:15 p.m. Free.
- Wed., Feb. 2---U Film Society: "The Confessions of Winifred Wagner." Museum of Natural History aud. 2:15, 7:30 and 9:30 p.m. \$1.50.
- Wed., Feb. 2---Discussion: "Dance and Literature" by Loyce Houlton, Ross Smith and Allen Robertson. 305 Lind Hall. 3:15 p.m. Free.
- Wed., Feb. 2---Lecture: "Sacred Space--What Does it Mean?" by Yi-Fu Tuan. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., Feb. 2---American Film Series: "Jacques Brel Is Alive and Well and Living in Paris." Theater-lecture hall, Coffman Union. 7:30 p.m. \$1.50.

(OVER)

- Thurs., Feb. 3---Art in Tribal Culture Film Series: "Crooked Beak" and "Behind the Mask." Gallery II, Coffman Union. Noon. Free.
- Fri., Feb. 4---Master Classes Concert: Raphael Hillyer, viola. Scott Hall aud. 10:15 a.m. and 2:15 p.m. Free.
- Fri., Feb. 4---Concert: Rob Weinberg. The Whole Coffeehouse, Coffman Union. Noon. Free.
- Fri., Feb. 4---Discussion: "Genetic Engineering" by Robert Gorlin, Robert Desnick and Jeroslav Cervenka. Mayo aud. Noon. Free.
- Fri., Feb. 4---Natural History Films: "Kodiak Island," "How to Build an Igloo," and "Birch Canoe Builder." Museum of Natural History aud. 12:15 p.m. Free.
- Fri., Feb. 4---U Film Society: "The Arabian Nights." Museum of Natural History aud. 7:30 p.m. \$2.
- Fri., Feb. 4---Concert: University Symphony Band. Northrop Aud. 8 p.m. Free.
- Fri., Feb. 4---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 8 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Fri., Feb. 4---The Whole Coffeehouse: Lonnie Knight and Barb With. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA TOO and Positively 4th Street.
- Fri., Feb. 4---Coffeehouse Concert: Alliance. Rouser Room, St. Paul Student Center. 9:30 p.m. \$1 students, \$1.50 public.
- Sat., Feb. 5---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 5:30 and 9 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sat., Feb. 5---U Film Society: "The Arabian Nights." Museum of Natural History aud. 7:30 p.m. \$2.
- Sat., Feb. 5---The Whole Coffeehouse: Lonnie Knight and Barb With. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA TOO and Positively 4th Street.

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(A0;B1;F2)

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JANUARY 28, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

VISITING SCULPTOR TO LECTURE

(FOR IMMEDIATE RELEASE)

"Tension and Compression" will be the topic of a free public lecture to be presented by sculptor Morio Shinoda Wednesday (Feb. 2) at 8 p.m. in 125 Auditorium Classroom Building on the University of Minnesota's West Bank.

Shinoda is a visiting professor in the University studio arts department. Born in Japan, he has had exhibitions of his work throughout the world, most recently a one-man show at the Schmela Gallery in Dusseldorf, Germany. He has previously taught sculpture in this country at the University of Kansas, the University of California, Los Angeles and the University of Colorado.

The lecture is sponsored by the studio arts department with the assistance of the Minnesota Forum.

-UNS-

(AO,2,31;B1;CO,2)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
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JANUARY 31, 1977

MTR
N47
A4P

NEWS PEOPLE: For further information
contact DEBRA KELLEY-VAUGHN, 373-2126

FOUR AREA COLLEGES TO OFFER
ADULT EDUCATION FESTIVAL

(FOR IMMEDIATE RELEASE)

Earning credit for knowledge gained from life experiences, the extinction of dinosaurs, Adlerian psychology and astronomy are just a few of the topics to be explored in a five-day fair offered for the over-21 set Feb. 14 through 18 at Dayton's in Minneapolis.

"Collegiate You: New Options for Adults," a week-long series of discussion, lectures and demonstrations focusing on higher education opportunities, will be held in the eighth floor auditorium at Dayton's. All sessions are free.

During the week, there will be sessions on ways to gain expertise in business administration, how women can return to school successfully, ways to publish what you write and how to finance a college education.

Opportunities for senior citizens, the right to privacy and a brief summary of the 1920s also will be covered.

The University of Minnesota will offer sessions on continuing education, the extinction of dinosaurs and astronomy and will give a sampling of instruction available at MacPhail Center for the Arts.

The fair is sponsored by University of Minnesota Continuing Education and Extension, Metropolitan State University, The College of St. Catherine Continuing Education and the New College, St. Thomas.

Staff and faculty will be available from 10 a.m. to 7 p.m. Monday and Thursday and from 10 a.m. to 4 p.m. Tuesday, Wednesday and Friday. For further information on the University of Minnesota program, contact Gayle Hendrickson at 373-3913. For information on the entire fair, call 296-4466.

-UNS-

(AO;B1)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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JANUARY 31, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

**JULLIARD VIOLIST
TO PERFORM AT 'U'**

(FOR IMMEDIATE RELEASE)

Violist Raphael Hillyer, a founding member of the Julliard String Quartet, will perform in a free public recital at the University of Minnesota Monday, Feb. 7, at 8 p.m. in Scott Hall auditorium.

The program will open with Suite in C Minor, Op. 15 No. 1, by Oscar Geier and will include works by Stravinsky, Bach, Musgrave and Hindemith.

Hillyer also will conduct a free public master class on the viola at the University Friday (Feb. 4) at 10:15 a.m. in Scott Hall auditorium.

Both events are sponsored by the departments of music, music education and concerts and lectures.

-UNS-

(AO, 2, 29; B1; CO, 2)

UNIVERSITY OF MINNESOTA
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JANUARY 31, 1977

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NEWS PEOPLE: For further information
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MEMO TO NEWS PEOPLE

University of Minnesota President C. Peter Magrath will introduce Antonio Perez, Chicano counselor for the University of Minnesota HELP Center, at a news conference sponsored by the University's Presidential Task Force on Chicano Concerns Wednesday (Feb. 2) at 4:30 p.m. in room 57, State Capitol, St. Paul.

The purpose of the news conference and meeting with members of the State Legislature and other government unit representatives, is to present the concerns of the Chicano students at the University and the Chicano community.

Among the items to be discussed are:

- Passage of a bill which would provide for bilingual-bicultural education in the state of Minnesota.
- The establishment of a state commission for Spanish-speaking people.
- Adequate staff for recruitment and retention of Chicano students at the University.
- Increased programs in chemical dependency treatment and health care.

-UHS-

(AO, 8, 11, B1)

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MINNEAPOLIS, MINNESOTA 55455
JANUARY 31, 1977

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OUTSTANDING HIGH SCHOOL SENIORS
ELIGIBLE FOR 'U' PRESIDENTIAL SCHOLARS

(FOR IMMEDIATE RELEASE)

High-school principals throughout Minnesota have been asked to submit by Feb. 15 the names of outstanding seniors, who plan to attend the University of Minnesota next fall at Duluth, Morris or the Twin Cities, for consideration as Presidential Scholars.

The program, now in its third year, provides no monetary award, but students participate in social events with former Presidential Scholars and seminars with University regents, faculty members and administrators during the school year.

The 50 scholars selected will be guests with their parents at a Presidential Scholars luncheon May 4 at the St. Paul Student Center and will receive special recognition from University President C. Peter Magrath.

Mabelle McCullough, assistant dean and Presidential Scholars coordinator, said principals may recommend one student from schools with senior classes of less than 300, two from senior classes of more than 300 and up to three nominees from senior classes of more than 600.

To be considered, a student must rank in the top five per cent of the senior class, apply no later than March 1 for admission to the Duluth, Morris or Twin Cities campus, be accepted and plan to enroll for fall quarter 1977.

Nominations must include a high-school transcript, admission test scores, a list of high school and community activities, letters of recommendation from a high-school faculty member and a member of the community and a 300- to 500-word personal statement by the student on reasons for going to college or expectations of the college experience.

(MORE)

Final selection will be made by a committee of faculty members, students and staff people. Nominees will be notified by April 15.

McCullough said that 55 of the 60 students selected as Presidential Scholars last year actually enrolled. In general, 66 per cent of the freshmen who are accepted actually enroll in classes.

Just four per cent of the Presidential Scholars failed to finish the first year, compared to 15 per cent for the freshman class overall. The students also returned in higher numbers for their second year of study. The re-enrollment rate on the Twin Cities campus of Presidential Scholars was 90 per cent in contrast with an overall return rate for freshmen of 70 per cent.

McCullough said the rate of return was especially significant since women account for the majority of the Presidential Scholars and women leave much more often following the freshman year than do men.

Presidential Scholars average higher grades than other freshmen and also earned more credits, she said.

-UNS-

(AO, 7; B1; CO, 7)

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RECORD QUARTERLY ENROLLMENT
CONTINUES AT UNIVERSITY

(FOR IMMEDIATE RELEASE)

Continuing increases in the enrollment of women and a 24 per cent increase in adult special registration resulted in a record winter-quarter enrollment of 53,329 at the University of Minnesota.

The number of women attending the University increased by 1,367 compared to last winter quarter. The number of men increased by 111. Women now account for 42 per cent of the University enrollment compared to 35 per cent a few years ago.

The enrollment of adult special students increased by 24 per cent over last winter quarter. Students in that classification are usually 24 years of age or older or have already earned a bachelor's degree and take individual courses or groups of courses to meet special needs. Adult special students are not candidates for degrees, but later admission to a degree program is possible on recommendation of the college.

University President C. Peter Magrath said the continued growth in the number of women students and the significant increase in the number of adult special students compared to last winter are positive signs.

"Colleges and universities are attracting increasingly diverse student bodies," Magrath said.

The number of students enrolled following graduation from high school increased by about five per cent and the number of students with previous college work was up three per cent.

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WINTER QUARTER ENROLLMENT

	<u>WINTER 1977</u>	<u>WINTER 1976</u>	<u>FALL 1976</u>	<u>MEN 1977</u>	<u>WOMEN 1977</u>
Crookston	1,006	862	962	631	375
Duluth	6,554	6,059	6,561	3,617	2,937
Twin Cities	43,225	42,626	45,753	25,749	18,048
Morris	1,548	1,574	1,569	873	675
Waseca	<u>996</u>	<u>843</u>	<u>851</u>	<u>616</u>	<u>380</u>
TOTAL	53,329	51,964	55,726	30,914	22,415

-UNS-

(AO, 6; B1; CO, 7)

(FOR IMMEDIATE RELEASE)

Feature story from the
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CIGARETTE SMOKERS SHOULD
WATCH WHAT THEY BREATHE

By Brian Lowey
University News Service

There's a little bit of asbestos in all sorts of things. It's in insulation, shingles, brake linings and boats.

Until 1973 it was sprayed on walls and ceilings for fireproofing, and it's still added to some kinds of caulking compounds, tiles and fabrics. All in all there are at least 3,000 different applications for this handy mineral.

But asbestos also has been linked with cancer, especially cancers of the lung and stomach. When people who work with asbestos saw through it or dump out bags full of it, microscopic asbestos fibers (around 1/25,000 of an inch long) drift through the air, and sometimes into people's lungs.

The ultimate result, sometimes, is cancer. But is it that simple? Or are there subtler mechanisms at work?

Researchers at the University of Minnesota's Freshwater Biological Institute think so. Arousing their curiosity and that of other researchers in the field is the fact that although asbestos workers have a seven or eight-fold higher probability of dying from certain types of lung cancer than the rest of us, this probability is 92 times higher among asbestos workers who smoke than among their non-smoking colleagues.

In studies with laboratory animals, a number of researchers also found that they could induce higher incidences of cancer with certain carcinogens only if some particulate matter such as asbestos or india ink was also present.

The conclusion was that asbestos fibers were ganging up with one of the various organic molecules found in cigarette smoke to cause cancer. This mechanism, if tracked down, could shed new light on the link between particulate matter suspended in the air and cancer.

Particulate matter, such as asbestos, has the ability to absorb (sop up chemically) polynuclear aromatic hydrocarbons (PAHs), a family of nasty chemicals found in cigarette smoke.

Whether these PAHs cause cancer by themselves or whether they have to metabolize in some way first is not entirely known, but the point is that they are delivered to cell membranes by the inhaled particulates. The chemicals are then taken up into the cell membrane where microsomes, tiny sub-cellular organs, go to work on them and the mysterious process which results in cancer begins.

(MORE)

"We can measure when a PAH leaves the asbestos particle and enters the cell membrane," said assistant professor Joseph Lakowicz, a researcher at the Freshwater Biological Institute. "We think this is one of the first steps in carcinogenesis.

"These transport mechanisms are an interesting aspect of cancer research," he said. "And asbestos is interesting to study because it has such a high absorptive ability--it even absorbs oil from the jute bags in which it is packaged and shipped."

Another interesting aspect of asbestos is the fact that some 200,000 workers are involved in direct production of asbestos materials and products, and between three and five million people handle the stuff in some way. Federal regulations already limit the number of asbestos fibers allowed in the air where people work, and there is talk of dropping the standards still lower. But the asbestos industry isn't the only place where these synergies occur.

"It appears that particulates in general can act as synergists," Lakowicz said. "There are other examples such as in the cotton industry where workers are exposed to particulates."

Lakowicz's research included the use of a relatively new laboratory technique--fluorescence spectroscopy. This technique enables researchers to track substances like PAHs into cells by watching the intensity of the light they give off (like black light posters) when they are exposed to certain wavelengths of radiation and charting how this intensity varies as they move from one chemical environment into another.

This technique will allow cancer research to take another technological step into the relatively uncertain realm of the relationship between particulates and carcinogens such as those found in cigarettes. If more links between cancer, smoking and occupational exposure to particulates are found, cigarette smokers may find it wise to give particulates a wide berth, or give up smoking altogether.

-UNS-

(AO, 4, 18, 23, 24; B1, 2, 4, 5; CO, 5; DO, 5; E3, 4, 18, 23, 24; G31)

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FEBRUARY 1, 1977

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CHORUS, ORCHESTRA CONCERT AT 'U'

(FOR IMMEDIATE RELEASE)

Stravinsky's "Symphony of Psalms" and Vaughan Williams' "Dona Nobis Pacem" will be performed in a free public concert by the University of Minnesota Symphonic Chorus and the University Symphony Orchestra Thursday, Feb. 10, at 8 p.m. in Northrop Auditorium on the Twin Cities campus.

Dwayne Jorgenson, assistant professor of music, conducts the 314-member chorus and Richard Massmann, professor of music, is the conductor of the 96-piece orchestra.

The event is sponsored by the University departments of music and music education.

-UNS-

(AO, 2, 29; B1; CO, 2)

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FEBRUARY 1, 1977

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BLACK POLITICAL SCHOLAR
TO SPEAK AT UNIVERSITY

(FOR IMMEDIATE RELEASE)

A talk by black political-science scholar Charles V. Hamilton will highlight the Black History Month celebration at the University of Minnesota Saturday (Feb. 5) at 8 p.m. in the Great Hall of Coffman Union.

"Black Politics and the Role of Blacks in American Politics" will be the topic of the lecture by Hamilton, a professor of government at Columbia University (New York, N.Y.) and the author of "The Black Experience in American Politics" and "The Fight for Racial Justice." With Stokely Carmichael, he is the co-author of "Black Power: The Politics of Liberation."

The Minnesota Gospel workshop will perform at the event which is open to the public with no admission charge.

Other Black History Month activities at the University include an exhibition of publications by University faculty on Afro-American and African topics in Wilson Library; a concert by Reginald Buckner, music and Afro-American studies faculty member, in Northrop Auditorium at 3 p.m. Sunday, Feb. 13, titled "A Recreation of the Big Band Jazz Sounds of the 1930's"; an exhibition of the works of contemporary black photographer Larry Sykes in Coffman Union gallery, and a film series and a play in Coffman Union.

-UNS-

(AO, 2, 3, 9; B1; CO, 3; D3, 8)

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Feb. 6-12

- Sun., Feb. 6---Jaques Gallery: "The Tallgrass Prairie: An American Landscape." Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Feb. 20. Free.
- Sun., Feb. 6---University Gallery: "Purcell & Elmslie, Architects," through Feb. 17; "Perspectives on Dane Rudhyar as Creative Artist," through Feb. 20; "People, Places and Things," through March 11. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., Feb. 6---Natural History Films: "Kodiak Island," "How to Build an Igloo," and "Birch Canoe Builder." Museum of Natural History aud. 2:30 p.m. Free.
- Sun., Feb. 6---Concert: University Wind Ensemble and University Brass Choir. Northrop Aud. 3 p.m. Free.
- Sun., Feb. 6---Concert: Anja and Barb. Fireplace room, McNeal Hall. 7 p.m. Free.
- Mon., Feb. 7---St. Paul Student Center Galleries: Montage by Mary Helen Harty, North Star Gallery; Photographs by Joe Gerber, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Feb. 25. Free.
- Mon., Feb. 7---Coffman Gallery: Photography by Rebert Sengstack and Lawrence Sykes. Gallery I and II. 10 a.m.-4 p.m. Through Feb. 24. Free.
- Mon., Feb. 7---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Mon., Feb. 7---Snowshoe Workshop. Rouser Room, St. Paul Student Center. 7 p.m. Free.
- Mon., Feb. 7---Recital: Raphael Hillyer, viola. Scott Hall aud. 8 p.m. Free.
- Tues., Feb. 8---Film: "Listen, Listen, Listen." Theater-lecture hall, Coffman Union. 12:15 p.m. Discussion with George Bullied follows. Free.
- Tues., Feb. 8---Lecture: "Winter Survival" by Tim Kneeland. McNeal Hall aud. 7 p.m. Free.
- Tues., Feb. 8---Theatre of the Word: "I, Bertolt Brecht--Poet and Playwright." Stoll theater, Rarig Center. 8 p.m. Free.
- Wed., Feb. 9---Discussion: "Secondary Reality: Post-Modern Literature and the Media" by Martin Roth. 305 Lind Hall. 3:15 p.m. Free.
- Wed., Feb. 9---Lecture: "Towards an Exoanthropology: The Potential of Extra-terrestrial Habitation" by Arthur M. Harkins. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., Feb. 9---Snowshoe Workshop. Rouser Room, St. Paul Student Center. 7 p.m. Free.
- Wed., Feb. 9---U Film Society: "Weekend." Museum of Natural History aud. 7:30 and 9:30 p.m. \$1.50.

(OVER)

- Wed., Feb. 9---Guthrie Play: "A Party for Two." North Star Ballroom, St. Paul Student Center. 8 p.m. \$1 students, \$2 public.
- Wed., Feb. 9---Theatre of the Word: "I, Bertolt Brecht--Poet and Playwright." Stoll theater, Rarig Center. 8 p.m. Free.
- Wed., Feb. 9---American Film Series: "In Celebration." Theater-lecture hall, Coffman Union. 8:30 p.m. Discussion with Jonathan Cook follows film. \$1.50 students, \$2 public.
- Thurs., Feb. 10---Cross-Country Workshop. Mall, St. Paul campus. Noon. Free.
- Thurs., Feb. 10---Tribal Eye Films: "Man Blong Custom" and "Sweat of the Sun." Gallery II, Coffman Union. Noon. Free.
- Thurs., Feb. 10---Lecture: "The Self in Ritual, How American Jewish Liturgy Accomodates Self" by Riv-Ellen Prell-Foldes. Theater-lecture hall, Coffman Union. 12:15 p.m. Free.
- Thurs., Feb. 10---Seminar: "Auden's Dante" by Monroe K. Spears. 207a Lind Hall. 2:30 p.m. Free.
- Thurs., Feb. 10---Concert: University Symphonic Chorus and University Symphony Orchestra. Northrop Aud. 8 p.m. Free.
- Thurs., Feb. 10---Lecture: "W. H. Auden and the Music of Time" by Monroe K. Spears. 16 Vincent Hall. 8 p.m. Free.
- Fri., Feb. 11---Natural History Film: "Lower Than the Angels." Museum of Natural History aud. 12:15 p.m. Free.
- Fri., Feb. 11---U Film Society: "Guernica." Museum of Natural History aud. 7:30 and 9:30 p.m. \$2.
- Fri., Feb. 11---Coffman Theater: "First Breeze of Summer" by Leslie Lee, directed by Philip J. Blackwell. Theater-lecture hall. 8 p.m. \$1.50 students, \$2.50 public.
- Fri., Feb. 11---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 8 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sat., Feb. 12---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 5:30 and 9 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sat., Feb. 12---U Film Society: "Guernica." Museum of Natural History aud. 7:30 and 9:30 p.m. \$2.
- Sat., Feb. 12---Coffman Theater: "First Breeze of Summer" by Leslie Lee, directed by Philip J. Blackwell. Theater-lecture hall. 8 p.m. \$1.50 students, \$2.50 public.

(FOR IMMEDIATE RELEASE)

Feature story from the
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HORMEL NAME CONFUSES
RESEARCH WITH SAUSAGE

By Michael Finley
University News Service

The name is confusing. People think that the Hormel Institute in Austin must have something to do with the Hormel meat packing plant in that city.

Sure, it's a research center, and sure, it's a part of the University of Minnesota's Graduate School. But don't they invent new kinds of bacon and ham there? Aren't they working on new ways to improve Spam?

No and no. Bacon is not the Hormel Institute's bag. Lipids are. Lipids are what biochemistry researchers call what ordinary people call fat. Fat--as in the stuff hanging in unshapely globules from our waists and thighs. Fat--an unloved ingredient in our constitutions, but a substance getting more and more attention in the research literature of the day.

Lipids, or fats, owe much of their current laboratory prestige to former University of Minnesota Prof. George Burr, who, with the help of his wife, published the first work ever on fats back in 1928. Together, the Burrs learned that fats were important for some vital physiological function that had nothing to do with simple calorie-burning.

Fats, they learned, were essential--thus the phrase "essential fatty acids"--and as necessary for animal life as amino acids, vitamins, or minerals. For that, George Burr is remembered as the "Father of Fatty Acids."

"I was one of George Burr's last grad students," said Ralph Holman, professor of biochemistry and director of the Hormel Institute. "When he left the University in 1946, there was suddenly a gap in an area that the University had been a pioneer in. J. C. Hormel's gift of a site and basic support from the Hormel Foundation made possible the Hormel Institute as a research-oriented part of the University."

(MORE)

What's been learned about lipids since George Burr's days could fill a library. In fact, it has. The Hormel Institute's library is crammed with journals, abstracts and papers relating to lipids. And lipids seem to be involved in just about everything:

If you're on an intravenous solution in a hospital, you'd better make sure there's soybean emulsion containing fatty acids in that bottle. Otherwise you'll come down with fatty acid deficiency, as sure a form of starvation as a month on a raft without rations.

In Winona and LaCrosse, a mysterious sleeping sickness has taken the lives of almost a dozen people. Work at the Institute, as well as at the University Health Sciences Center and the University of Wisconsin, has demonstrated that lipids perform an important role in cultivating the germ carried by the sleeping sickness mosquito.

Howard Jenkin, Hormel Institute professor of biochemistry, is involved in perhaps the most successful attempt yet to get syphilis bacteria to grow in a test tube. His best time yet: nine days. The previous world record: 48 hours. Any syphilis vaccine of the future will be based on scientists' ability to grow the germ in the laboratory.

Lipids are involved in the formation of cataracts over the eyes. Prof. Jacques Chipault has learned that the same drug that once was used to break up cholesterol is also instrumental in causing cataracts.

Other kinds of lipid research and speculation range from Legionnaire's disease, arthritis, brucellosis, herpes, all kinds of cancer, air and water pollution, dietetics and even the fragrances of roses, analyzed through the Institute's gas chromatographs.

No mention anywhere of bacon, ham-hocks, chitterlings, or Spam.

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FEBRUARY 3, 1977

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CITY WATER POSES THREAT
TO KIDNEY PATIENTS

(FOR IMMEDIATE RELEASE)

A chemical compound used by many cities to purify tap water has been found to pose a threat to the health of hospital patients awaiting kidney transplants.

According to a University of Minnesota researcher, patients at two Minneapolis dialysis centers frequently developed hemolytic anemia, a disorder which destroys oxygen-carrying red blood cells, while a third center reported no severe anemia problems. The only difference between the three centers appeared to be the purity of the water used in the dialysis (artificial kidney) machines.

Two or three times a week, dialysis machines remove waste products from the blood of patients who have no functioning kidneys. Waste products pass through a semipermeable membrane and are carried away by a stream of water.

One dialysis unit was using untreated tap water in its blood-cleansing machines, the second was filtering the tap water for particles and trace metals, and the third was using a more efficient charcoal filter.

The apparent relationship between tap water and anemia was verified by John Eaton, assistant professor of medicine. He simulated the blood-cleansing process in his laboratory and found that the suspect tap water did damage red blood cells.

According to Eaton, an odor reminiscent of swimming pools and the fact that the substance easily transformed to a gas and could pass through the dialysis membrane suggests that a chlorine compound might be responsible for the anemia.

About one-third of all urban water treatment plants use a combination of chlorine and ammonia to remove bacteria from the water, Eaton said. When distilled water in his laboratory was treated with a similar combination it produced the same destructive effect on red blood cells.

(MORE)

"In addition to removing waste products, normal kidneys also produce a substance that triggers red blood cell production," Eaton explained. "Patients without functioning kidneys ordinarily don't produce enough red blood cells and any additional destruction of red blood cells results in severe anemia. Furthermore, blood transfusions to counteract the anemia often sensitize patients and increase the chance of rejecting a transplanted kidney."

Eaton also found that Vitamin C (ascorbic acid) added to the dialysis water effectively neutralizes the chlorine and corrects the problem. Since Eaton's first reports on the discovery were published, dialysis centers throughout the country have begun adding ascorbic acid to the water they use.

"At University Hospitals," said Eaton, "there has been a 70 per cent reduction in the number of transfusions needed by dialysis patients."

-UNS-

(AO,22,23,24;B1,5;CO,5;DO,5;E22,23,24;G31)

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February 4, 1977

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STUDY OF SPACE RADIATION
PROVIDES EARLY WARNING SYSTEM

By Jeannie Hanson
University News Service

Cosmic radiation from space bombards the earth every day. If our eyes were designed differently, we could see it enter the earth's atmosphere and pass through the walls of buildings.

"Cosmic radiation is dangerous, but it doesn't kill you immediately like it does in some science fiction stories," said Phyllis Freier, physicist at the University of Minnesota. Earth's atmospheric blanket and magnetic lines of force protect us from most of the radiation, bouncing and directing it back into space.

But the radiation that is detected, on earth and from further away, can be tapped for information about the puzzles of the universe: how are stars born? What is the nature of outer space? What is a black hole? What can we learn about anti-matter? And cosmic radiation can provide an early warning system of events occurring in outer space.

Space is not empty. Between the stars, planets and nebula are gamma rays, x-rays, ultraviolet rays, light waves, infrared waves, microwaves, radio waves, magnetic fields, electrons, molecules and cosmic rays. Human eyes can see only the light waves, less than a tenth of what is out there, Freier said.

But even if we could see everything, outer space still would not seem overly crowded. Space is so vast that, on the average, there is only one tiny atom of hydrogen for every cubic centimeter of space.

Even though space is sparsely populated by particles, the cosmic rays and charged particles out there can be "seen" using equipment such as electroscopes, geiger counters, cloud chambers, photographic emulsion plates, scintillators and spark chambers.

(MORE)

"In the early days, equipment to observe cosmic rays was sent up in balloons, floated around the world in ships, and even sunk under the ocean," Freier said. Just after World War II, Minneapolis was known as the balloon capital of the world because so many physics experiments were launched in balloons to avoid interference from the lower atmosphere. Some balloons are used today, but most experiments are now sent up via satellite.

The equipment sent aloft is used to track cosmic rays and other forms of radiation. "We wouldn't know there was anything up there unless it did something to our detectors," Freier said.

Evidence collected this way reveals the make-up of cosmic rays. Nuclei of most of the atoms known on earth have been found in outer space and in about the same proportions. Even bits of iron and lead are streaking through space.

Tracking cosmic rays also tells scientists something about the rays' origins. Rays lose energy as they move through other matter in space and change as they interact. By analyzing a given ray, physicists can often tell what else it has passed through.

Cosmic radiation tells scientists much about original sources of energy in the universe. X-rays detected in space may have come from a "black hole"--a collapsed star so dense that even light can't escape from it. Gamma rays are the result of decay of very high energy particles in outer space nuclear reactions. Radio waves originate on pulsating stars called pulsars and cosmic rays may come from supernovas, giant exploding stars near death and ready to collapse and shrink.

"Still, the way cosmic radiation actually gets accelerated into space is a mystery," Freier said. It may be ejected violently from stellar catastrophes or pulsating stars or it may leak slowly off ordinary stars like the sun and be pushed forward by the magnetic lines of force that criss-cross space.

Scientists feel that cosmic radiation, as it streams from stars, may help explain the birth of stars someday. Physicists know that all the elements in space,

(MORE)

including those that now make up the earth and those that form new stars, are "cooked" inside the nuclear ovens of stars as they age. Hydrogen and helium are the first two ingredients, but the rest of the recipe is not completely known, Freier said.

Researchers are especially eager to use cosmic rays to learn about galaxies other than our own. Some radiation of "anti-matter" has been detected--anti-hydrogen, the opposite of hydrogen as we know it. "But this could have been created in an interaction of high energy particles," Freier said. Whole galaxies may exist that are made of anti-matter--a kind of mirror of the galaxies we know.

"We have reasons to expect that the universe has equal amounts of matter and anti-matter," Freier said. "So we have begun to search in cosmic rays for the anti-matter of heavy elements like iron." It might be found if cosmic rays from anti-matter galaxies entered our galaxy, providing the evidence for the existence of large amounts of anti-matter in the universe.

A close encounter with an anti-matter galaxy, though extremely unlikely, could end our galaxy in a giant explosion.

-UNS-

(AO,4;B1;CO,4;DO,4;E4,21;G31)

(FOR RELEASE ANY TIME)

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SUPERCONDUCTORS POSSIBLE ANSWER
TO FUTURE POWER-LINE CONTROVERSIES

By Jack Rink
University News Service

Planning the course of new high-voltage power lines has led to ugly and sometimes violent confrontations in some parts of the country. While citizen groups protest removing valuable land from production and the possibility of harmful radiation to local residents, power companies argue the critical need for additional power.

The two sides are gearing up for what may be the biggest environmental battle in years.

A current research project at the University of Minnesota could lead to an eventual solution, and the same research may have countless other applications, including nuclear fusion energy sources and a generation of faster computers.

The key to all these technical advances is the development of practical superconductors.

Superconductors are being considered for such diverse uses because they conduct electricity with absolutely no resistance. Some resistance is a property common to all conventional electrical wires and devices, causing some electricity to be lost in the form of heat.

Although it can be put to practical use in electrical heaters, resistance also means that all electrical systems are unavoidably wasteful. Since superconductors have no resistance and can carry electricity with no waste, they make perfect electrical conductors.

Unfortunately, though superconductors have been under study since their discovery in 1911, scientists have yet to develop any that are able to function outside of specially equipped laboratories.

The problem is that even the best available superconductor, an alloy of niobium and germanium, is useful only at temperatures below -418°F (-250°C). Obtaining such

(MORE)

a temperature is a difficult process in itself because costly liquid helium must be used as a coolant.

But scientists point out that if the transition temperature (the highest temperature at which a material remains a superconductor) could be raised even a few degrees it would permit the use of cheaper coolant and perhaps lead to more general use of superconductors.

A superconductor able to operate near room temperature, though a distant and perhaps impossible goal, would revolutionize electrical technology.

One obvious use for superconductors is in electrical transmission lines. The massive overhead power cables, the center of the current controversy, could be replaced by a single, more efficient superconductor strand. Furthermore, since the strand would most likely be underground, environmental damage would be minimal.

A variety of other uses for superconductors is being considered. Superconductor electromagnets are thought to be essential in forming magnetic "bottles," the key to fusion power. Fusion power (not to be confused with fission power, currently the only form of nuclear energy) is thought to be a safer and cleaner way to generate power than present nuclear power plants.

The transition between superconducting and normal electrical behavior is being studied for commercial use in computers. Superconductor switches could make new computers a thousand times faster than the quickest existing models, making automated services cheaper and more efficient.

Using a National Science Foundation grant and funds from the University of Minnesota, physics professor Allan Goldman and materials science professor Louis Toth are studying the temperature dependence of superconductors as well as some of their other mysterious properties. Although Goldman and Toth emphasize that the project is basic research, both hope that the findings will have practical applications.

According to Goldman, the project will have two basic phases. The first phase will be to produce high quality superconductors. In the second phase the scientists will carefully study the electronic properties of the superconductors. "If you

(MORE)

understand existing high transition temperature superconductors you can begin to plan to develop new materials which may have even higher transition temperatures," Goldman said.

For this particular project, superconductors are best studied in the form of a "junction". The junctions, Toth explained, are simply thin films of superconductor, insulator and more superconductor sandwiched together. The dimensions of the junctions, however, makes producing them a difficult feat.

A typical junction is made by depositing a superconductor layer 500 atoms thick, then 10 atoms of an insulator such as aluminum oxide, followed by a final layer of 500 superconductor atoms. The thickness of the entire junction is about 12 millionths of an inch (30 millionths of a centimeter).

Not surprisingly, flaws are easily introduced during construction and previous studies have been criticized as "unbelievable" because of imperfect junctions. "Our group is primarily responsible for making materials that are believable," Toth said, "and these must be the absolute best superconductors around."

Goldman and Toth expect to spend three to five years investigating the properties of superconductor junctions. Both are optimistic that their work will result in a better understanding of superconductors which may, in turn, lead to a practical superconducting material.

-UNS-

(A0,4,18;B1,2,9;C0,4;D0,4;E4,9,18;G31)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
February 7, 1977

MTR
N47
JAP

WOMEN IN POLITICS MUST
STRUGGLE AGAINST STEREOTYPES

By Ronaele Sayre
University News Service

Men fill 95 per cent of the elected offices in the country.

"And an awful lot of women worked to get them elected," says Joan Growe, Minnesota Secretary of State.

Those women, Growe said, have all the experience necessary to survive in the political world but men have most of the jobs, power and influence.

Growe spoke Saturday at a forum on women and the law sponsored by Continuing Education for Women at the University of Minnesota.

Elected to the State House of Representatives in 1972 and to her current post in 1975, Growe said she has had to struggle both during her campaigns and even now to overcome the widely held view that women are in politics "as a hobby." "People don't think you have credibility for what you are saying or doing," she said.

The news media, according to Growe, are responsible for many of the continuing biases against women in politics. She cited as example the press coverage of two political contests involving incumbents in the Minnesota Legislature last November.

"One was described as too close to call but, in the other, where the opponent was a woman, the challenger was considered a long shot. Both incumbents won by the same margin of votes," Growe said.

Women's involvement in almost any form of political activity carries a stereotype, she said. "Very, very seldom does the news show a dignified, white-haired woman with pearls testifying on behalf of the E.R.A.," she said. "It is more likely that you will see a young woman screaming obscenities at an abortion rally."

Growe said her office was recently asked to evaluate a filmstrip that dealt with lobbying. "All the politicians were men and women were the ones asking for help."

(MORE)

She said it is important that filmstrip makers and textbook publishers make it clear that women are serving in political office.

The woman politician also has the opportunity to make her male counterparts look at problems in a new light, she said. Grove, who serves on the state executive council, said she has pointed out many of the problems women state employees are having with child care as a result of the 10-hour work day operating during the energy emergency. "Many of the men have had to admit they never thought of that," Grove said.

Women politicians must give almost flawless performances since any mistakes they make are magnified because they are women, she said.

"If a man introduces a bill and does a rather poor job of it, his colleagues say he is just having a bad day but if a woman gave a poor presentation it is because she just doesn't know how to present a bill," Grove said.

Grove was once criticized for saying that it was easier to run an office than a car pool for her children. "It takes a lot of talent and ability to run a home with not as many people around to help as in an office," she said.

Grove said that a number of things have been scheduled to continue much of the work that began during the International Year of Women in 1975. A national convention on the concerns of women is set for November in Houston. A state convention to elect delegates and develop resolutions for the convention will be held in St. Cloud, Minn., in June. Information is available by writing Room 400 Southwest, State Office Building, St. Paul, Minn. 55155.

-UNS-

(A0,13,27;B1;C0,13)

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FEBRUARY 7, 1977

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NEWS PEOPLE: For further information
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MEMO TO NEWS PEOPLE

The University of Minnesota's response to Gov. Rudy Perpich's budget recommendations and proposed alternatives to a University-requested pharmacy-nursing building will be discussed during the monthly meeting of the Board of Regents Friday (Feb. 11) in 238 Morrill Hall on the Minneapolis campus.

The discussions will begin at the committee of the whole meeting which convenes at 8:30 a.m. A report from an investment counselor retained by the University is also on the committee's agenda.

The regular monthly board meeting will follow at 10:15 a.m. in 238 Morrill. Regents' committee meetings will begin Thursday afternoon (Feb. 10).

At 1:15 p.m., the physical plant and investments committee will meet in 300 Morrill and the faculty and staff affairs committee will meet in 238 Morrill.

At 3 p.m., the educational policy and long-range planning committee will meet in 300 Morrill and the student concerns committee will meet in 238 Morrill.

A special meeting of the student concerns committee will be held at 6 p.m. in the Campus Club to hear reports from coordinate campus student body presidents. Karen Olsen, president of the Twin Cities student body, will give her report at the 3 p.m. student concerns committee meeting.

Other agenda topics for the Thursday committee meetings will be dormitory remodeling, a long-range development plan for the Rosemount experiment station, a discussion of teaching the arts, the report of a task force on student services fees and discussion of recreation fields near the St. Paul campus.

-UNS-

(A0,1;B1;C0,1)

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FEBRUARY 8, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

**PUNCHINELLO PLAYERS TO PRESENT
PULITZER PRIZE WINNING PLAY**

(FOR IMMEDIATE RELEASE)

"The Effect of Gamma Rays on Man-in-the-Moon Marigolds," a drama by Paul Zindel which received the Pulitzer Prize in 1971, will be presented by the Punchinello Players of the University of Minnesota beginning Friday, Feb. 18.

The play, directed by Jann Iaco, graduate student in theater, will be presented in the North Hall arena theater on the St. Paul campus, at 8 p.m. Fridays and Saturdays, Feb. 18, 19, 25 and 26 and March 4 and 5. Admission is \$2 and tickets may be purchased at the door. Reservations may be made by calling 373-1570. Group rates are available.

The cast includes Marion Fink, a former University student from St. Paul, as Beatrice, the mother; Shirley Swenson, a senior from Lafayette, Minn., as Ruth, the disturbed daughter; Diana Gard, a freshman from Grand Forks, N.D., as Tillie, the daughter whose scientific experiment is the title of the play; Carol Bohlman, a freshman from St. Paul, as Nanny, the boarder, and Cheryl Nolte, a senior from Fairmont, Minn., as Janice Vickery.

The Punchinello Players are the oldest theater group on the University campus.

-UNS-

(A0,2,30;B1;C0,2)

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FEBRUARY 8, 1977

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contact JUDY VICK, 373-7515

'U' THEATRE TO PRESENT 'JEAN BRODIE'

(FOR IMMEDIATE RELEASE)

The contemporary drama, "The Prime of Miss Jean Brodie," will be presented in the Whiting proscenium theater of Rarig Center at the University of Minnesota Feb. 18 through March 6.

Kathleen Ellison, a graduate student from Marinette, Wis., is directing this production of the play written by Jay Presson Allen from the novel by Muriel Sparks.

The story concerns a teacher in 1930's Scotland and her influence on her former student 27 years later.

The title role is played by Carolyn DeMoney Culliton, a graduate student from Columbia City, Ind.

Performances, from Feb. 18 through March 6, are at 8 p.m. Fridays; 5:30 and 9 p.m. Saturdays, and Sunday, March 6 only, at 3 p.m.

Admission is \$3.50 for the general public and \$2.50 for senior citizens and students. Tickets are on sale at Rarig Center and Dayton's. Reservations can be made by phoning 373-2337.

-UNS-

(A0,2,30;B1;C0,2;D0,2)

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FEBRUARY 8, 1977

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NEWS PEOPLE: For further information
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'FIRST BREEZE OF SUMMER' AT 'U'

(FOR IMMEDIATE RELEASE)

"The First Breeze of Summer," a play about the Black experience, will be presented at the University of Minnesota Fridays and Saturdays, Feb. 11, 12, 18 and 19 at 8 p.m. in the Coffman Union theater-lecture hall.

The play, written by Leslie Lee, tells the story of a woman's unusual journey from youth to old age and the story of her grandson's arrival at maturity.

Philip James Blackwell is directing the production in partial fulfillment of the requirements for a bachelor of arts degree, summa cum laude.

Leading roles are played by Nothando Zulu as "Gremmar" and David Campbell as her grandson, "Lou." Others in the cast include Tisch Davis, Delores Johnson, David Harper, Gordon Parks, Lois L. Green, Lyle Ferguson, Marcellus Carlin, Marvin Grays, Jim Hartman, Ruby Johnson, Estelene Bell and Gregory A. Williams.

The production is sponsored by the Coffman Union Program Council Contemporary Arts Board, the College of Liberal Arts Honors Program and the Black Theatre Alliance.

Admission is \$2 for the general public and \$1 for students.

-UNS-

(A0,2,9,30;B1;C0,2;D0,2,8)

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FEBRUARY 8, 1977

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LEGISLATORS TALK TOUGH
ON 'U' POSITION REQUEST

(FOR IMMEDIATE RELEASE)

The University of Minnesota will have an uphill fight to get the more than 700 new positions it is requesting from the 1977 Legislature if the discussions with a House division Tuesday are any indication of what the future holds.

University President C. Peter Magrath and several administrators spoke to the Education Division of the House Appropriations Committee about their \$366.6 million request to run the University for the 1977-79 biennium.

The request includes about \$34 million for new positions, including about 400 faculty spots.

After the hearing, Magrath said the legislators are working in an environment in which there is a "severe questioning" of the fiscal situation in higher education.

"What they're doing is pushing very hard to see if there is a justification for new positions. That's their job. I'd be doing the same thing if I were behind the table," Magrath said.

One area of concern is that the University has already added faculty members in anticipation of large enrollment increases last fall. "We did allocate some positions where enrollment increases did not occur," said Stanley B. Kegler, vice president for institutional planning and relations.

Kegler said that not all of the new University positions added during the present biennium were related to instructional costs. Some were the result of a reorganization of the Duluth campus, some were put on "hard" or permanent funding, and others were related to projected enrollment increases, he said.

Kegler said he would report back to the division on the number of those positions which could be changed as a result of the enrollment increases falling short of expected levels.

(MORE)

Kegler speculated that the University's projected enrollment increase was less than expected because of the publicity which surrounded discussions of enrollment limitations last summer.

He said the new enrollment-related positions will still be needed for increasing numbers of entering students and the community college students who will transfer to the University within the next two years.

Vic Vikmanis, a legislative staff analyst, said his enrollment figures show the University to have more faculty than it needs. "It is inescapable in looking at the numbers that the University is overstaffed," he said.

Vikmanis compared the University's enrollment of the equivalent of 44,051 full-time students (FYE's) in 1971 to the actual fall 1976 enrollment of 55,761. At the same time, he said, the size of the faculty has increased from 3,858 to 4,378.

Henry Koffler, vice president for academic affairs, said the use of "full-time equivalent" students is misleading. "We have to feed, advise and counsel the whole student. If someone is taking 40 rather than 45 credits, you don't just take care of nine-tenths of him," Koffler said.

Some legislators were concerned that the University would not reduce the size of its faculty when enrollment reaches its expected peak if enrollment-related faculty positions were funded this year.

University officials responded that there will be about 660 retirements in the 1980s when enrollment is expected to begin declining after the bulge. "Most of the reduction of staff can be through attrition," Magrath said.

Rep. Ray Faricy, DFL-St. Paul, questioned what would happen if the enrollment reductions were in areas where there are tenured faculty members. "Will you re-evaluate tenure?" he asked.

"My personal opinion is that there will not be a fundamental change in our tenure system," Magrath said. "It is firmly engrained in our academic system and is even in some collective bargaining agreements.

(MORE)

"It is possible that we will get some way of reviewing tenured faculty," Magrath said, adding that the review would be for salary increases and other rewards. The only way a tenured faculty member can be removed is for "moral turpitude" and in cases of financial exigency, he said.

Koffler said he is concerned that too much stress on the faculty for teaching would reduce "the essence of the University" in its research and service functions. "Stresses in one area cannot help but create stresses in another activity," he said.

"The problems which beset us are complicated ones and universities traditionally play an important role in working on them," Koffler said. "What we do or do not do will not affect us today, but it will affect the future of the state and country."

He said that the College of Business Administration, for example, had a sharp enrollment increase in 1969 and has never had the staff funding to catch up with the overcrowding and closed classes that have resulted. "Our MBA program, quite frankly, is not as good as it could be and we'd like to do something about that," he said.

Koffler said the Law School could be improved greatly with a little investment after it moves into its new building.

Faricy was sharply critical of the University's projected enrollment of 800 for the Law School and a teacher-student ratio of 1-18. Faricy said the building was approved by the Legislature for an enrollment of 750 and a 1-21 teacher-student ratio.

Faricy also criticized the University's emphasis on clinical programs in the new building after giving up the Legal Aid to Minnesota Prisoners (LAMP) program.

"I think somebody should reassess what you're doing," he said.

"Our Law School is a very competent law school," Koffler said. "My contention is that for not much more, we could improve it."

-UNS-

(A0,1,28;B1,6,10;C0,1,15;D0,1)

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FEBRUARY 9, 1977

NEWS PEOPLE: For further information
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UNGER TO SEEK POSITION
AS AT-LARGE 'U' REGENT

(FOR IMMEDIATE RELEASE)

Michael W. Unger, student regent at the University of Minnesota, will seek re-election to the Board of Regents as an at-large member instead of as the representative of the fourth congressional district.

Unger was named to the board last year by Gov. Wendell Anderson when George Latimer resigned to become mayor of St. Paul. Unger's current term will expire in 1979. A new position as an at-large representative would expire in 1983.

At-large regents whose terms expire this year are Loanne Thrane of Chanhassen, Wenda Moore of Minneapolis, and George W. Rauenhorst of Olivia.

The other regent whose term expires this year is Lester A. Malkerson, who has moved to Shakopee which is outside the fifth congressional district which he represented. All have indicated a desire to return to the board.

Four of the twelve regents are elected every six years in a joint session of the Minnesota Legislature. Traditionally, eight board members represent congressional districts and four are at-large members.

Unger, who lived 16 of his 21 years in the fourth district, said it would be more appropriate that the student regent be an at-large member of the board.

"When Gov. Anderson announced my appointment to the board, he stated that it was his intent to fulfill the spirit of the 'student regent' law passed last session," Unger said. "That law specifically provides for the election of a student or recent graduate to the board as a representative of the state at large."

Unger, a senior in political science and speech communications, resides at 2280 Priscilla St. in St. Paul. He was active in student government activities before being named to the Board of Regents.

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(AO,1,15;B1;CO,1;DO,1;E15)

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FEBRUARY 9, 1977

NEWS PEOPLE: For further information
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ROTC LAUNCHES
NEW PROGRAM AT 'U'

(FOR IMMEDIATE RELEASE)

Army ROTC at the University of Minnesota is now recruiting students who didn't join during the days of anti-war protest.

Under new regulations, previously completed academic courses can be substituted for comparable freshman and sophomore Army ROTC courses by advanced and graduate students. In this way, the ROTC program can be completed in two years instead of four with no loss of benefits.

"We think enrollments will rise considerably under this plan," said Colonel George Stenehjem, military science professor. "ROTC has a positive image again, and we're giving people a second chance to join."

The University of Minnesota is one of 40 schools in the country participating in this experimental attempt to attract more potential Army officers. The program will be evaluated next fall by the Department of the Army in Washington, Stenehjem said. The Army Reserve and National Guard are expected to share the new personnel recruited under this program with the Army.

-UNS-

(AO,7;B1;CO,7)

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FEBRUARY 9, 1977

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NEWS PEOPLE: For further information
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JAZZ ENSEMBLES TO PERFORM

(FOR IMMEDIATE RELEASE)

Clarinet soloist John Anderson will perform in concert with the University Jazz Ensembles Sunday (Feb. 13) at 4 p.m. in Coffman Union at the University of Minnesota.

The jazz ensembles consist of three groups of about 20 members each. They will perform works by Paul McCartney, Dizzy Gillespie, Chick Corea, Cole Porter, Jiggs Noble, Leonard Bernstein and Lance Strickland. Strickland, a teaching assistant at the University, will direct the groups with Mark Lammers, music instructor.

Anderson is an assistant professor of music at the University.

The event, sponsored by the departments of music and music education, is open to the public with no admission charge.

-UNS-

(AO,2,29;B1;CO,2)

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TELEPHONE (612) 373-5193
FEBRUARY 10, 1977

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Feb. 13-19

- Sun., Feb. 13---St. Paul Student Center Galleries: Montage by Mary Helen Horthy, North Star Gallery; Photographs by Joe Gerber, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Feb. 25. Free.
- Sun., Feb. 13---Jaques Gallery: "The Tallgrass Prairie: An American Landscape." Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through Feb. 20. Free.
- Sun., Feb. 13---University Gallery: "Purcell & Elmslie, Architects," through Feb. 17; "Perspectives on Dane Rudhyar as Creative Artist," through Feb. 20; "People, Places and Things," through March 11. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thrus., 2-5 p.m. Sun. Free.
- Sun., Feb. 13---Natural History Film: "Lower Than the Angels." Museum of Natural History aud. 2:30 p.m. Free.
- Sun., Feb. 13---University Theatre: "Happy End" by Bertolt Brecht and Kurt Weill, directed by H. Wesley Balk. Stoll theater, Rarig Center. 3 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sun., Feb. 13---Concert: "Black Music--Big Band Sound of the '30's." Northrop Aud. 3:30 p.m. Free.
- Sun., Feb. 13---Concert: University Jazz Ensembles. Great Hall, Coffman Union. 4 p.m. Free.
- Mon., Feb. 14---Coffman Gallery: Photography by Robert Sengstacke and Lawrence Sykes. Gallery I and II. 10 a.m.-4 p.m. Mon.-Fri. Through Feb. 24. Free.
- Mon., Feb. 14---Two-Bit Flick: "Flash Gordon" and "Road Runner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Tues., Feb. 15---University Gallery: "Classical Narratives in Master Drawings." Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Through March 15. Free.
- Tues., Feb. 15---Discussion: "Dance and Literature" by Loyce Houlton and Allen Robertson. Theater-lecture hall, Coffman Union 2 p.m. Free.
- Wed., Feb. 16---Lecture: Calvin Rutstrum. Theater-lecture hall, Coffman Union. 12:15 p.m. Free.
- Wed., Feb. 16---Discussion: "Musical Composition and Literature" by Michael Dennis Browne and Stephen Paulus. Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Wed., Feb. 16---Lecture: "New Translations from Lermontov: Readings and Commentary" by Anatoly Liberman. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., Feb. 16---U Film Society: "Boesman and Lena." Museum of Natural History aud. 7:30 and 9:30 p.m. \$1.50.

(OVER)

- Thurs., Feb. 17---Tribal Eye Films: "Woven Garden" and "Kingdom of Bronze."
Gallery I, Coffman Union. Noon. Free.
- Thurs., Feb. 17---U Film Society: "Memory of Justice." Museum of Natural History
aud. 7 p.m. \$2.
- Fri., Feb. 18---Concert: John Ashton. The Whole Coffeehouse, Coffman Union.
Noon. Free.
- Fri., Feb. 18---Natural History Film: "Moonwalk." Museum of Natural History aud.
12:15 p.m. Free.
- Fri., Feb. 18---Lecture/Demonstration: Paul Taylor Dance Company. Theater-lecture
hall, Coffman Union. 2 p.m. Free.
- Fri., Feb. 18---U Film Society: "Memory of Justice." Museum of Natural History
aud. 7 p.m. \$2.
- Fri., Feb. 18---Coffman Theater: "First Breeze of Summer" by Leslie Lee, directed
by Philip J. Blackwell. Theater-lecture hall. 8 p.m. \$1 students, \$2 public.
- Fri., Feb. 18---Punchinello Players: "The Effect of Gamma Rays on Man-in-the-Moon
Marigolds" by Paul Zindel, directed by Jann Iaco. Arena theater, North Hall.
8 p.m. \$2.
- Fri., Feb. 18---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson
Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 8 p.m.
\$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig
Center and Dayton's.
- Fri., Feb. 18---The Whole Coffeehouse: James Lee Stanley and Bill Johnson. Coffman
Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, TOO and Positively
4th Street.
- Sat., Feb. 19---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson
Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 8 p.m.
\$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig
Center and Dayton's.
- Sat., Feb. 19---U Film Society: "Memory of Justice." Museum of Natural History
aud. 7 p.m. \$2.
- Sat., Feb. 19---Coffman Theater: "First Breeze of Summer" by Leslie Lee, directed
by Philip J. Blackwell. Theater-lecture hall. 8 p.m. \$1 students, \$2 public.
- Sat., Feb. 19---Dance: Paul Taylor Dance Company. Northrop Aud. 8 p.m. \$7, \$6,
\$5, \$4, \$3.
- Sat., Feb. 19---Punchinello Players: "The Effect of Gamma Rays on Man-in-the-Moon
Marigolds" by Paul Zindel, directed by Jann Iaco. Arena theater, North Hall.
8 p.m. \$2.
- Sat., Feb. 19---The Whole Coffeehouse: James Lee Stanley and Bill Johnson. Coffman
Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, TOO and
Positively 4th Street.

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FEBRUARY 14, 1977

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NEWS PEOPLE: For further information
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YOUNG PEOPLE'S UNIVERSITY THEATRE
TO PRESENT 'JOHNNY MOONBEAM'

(FOR IMMEDIATE RELEASE)

A play for children, "Johnny Moonbeam and the Silver Arrow," will be presented by the University of Minnesota Young People's Theatre Saturday, Feb. 26 at 11 a.m. and 2 p.m. in the Stoll theater of Rarig Center.

The story concerns 12-year-old American Indian Johnny Moonbeam, his striving to earn the coveted silver arrow and his struggle with the power he achieves.

Eleven-year-old Mark Mercil, a student at Tuttle School in Minneapolis, plays the title role in the production of the dance-drama directed by Hyrum Conrad, a graduate student from Huntington Beach, Calif. Some Chippewa tribal traditions are incorporated into this version of the play.

Admission is \$1.50. Tickets are on sale at Rarig Center and Dayton's. Reservations can be made by phoning 373-2337.

There will also be special performances of the play for school groups Feb. 22 through March 4.

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(AO, 2, 8, 10, 30; B1; CO, 2, 10; DO, 2)

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FEBRUARY 14, 1977

NEWS PEOPLE: For further information
contact JEANNIE HANSON, 373-7517

CHILD DEVELOPMENT GRANT
AWARDED TO U OF M

(FOR IMMEDIATE RELEASE)

A \$230,000 grant to sponsor national conferences on child development has been awarded to the Center for Early Education and Development, part of the Institute of Child Development at the University of Minnesota.

The grant from the Bush Foundation will be used to sponsor four interdisciplinary institutes in early childhood education and child development. Ranging from two days to five weeks long, the sessions will be in April, May, June-July, and October, 1977.

A national faculty will convene to discuss current trends in early childhood education, the political dimensions of early education, methods of encouraging competence in children, and ways to evaluate early childhood education programs. Participants are to be selected from a pool of national applicants in fields such as elementary education, law, special education, clinical psychology and pediatrics.

Selected presentations during the June-July sessions on competence in children will be open to the public. Directors of the project are Prof. Shirley Moore, associate Prof. Richard Weinberg, and project coordinator Donald Henry.

-UNS-

(AO,14,16;B1;CO,14,16;DO;E16)

UNIVERSITY OF MINNESOTA
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FEBRUARY 15, 1977

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

'U' RECEIVES \$1 MILLION FROM AUSTRIA

(FOR IMMEDIATE RELEASE)

A \$1 million gift from the nation of Austria has been awarded to the University of Minnesota.

The gift is to be used to establish a center for Austrian studies at the University, as a Bicentennial gift from the Austrian people to the people of the United States.

The University was selected from 15 American colleges and universities which had indicated their interest in the proposed "Austrian Chair." A second chair will be established at Stanford University in California.

University President C. Peter Magrath described the receipt of the gift as "welcome and exciting news. It is a significant action that will serve as a lasting reminder of the educational and cultural ties between our countries," he said. "We are deeply honored."

Detailed plans for the center will be determined in discussions between representatives of the University and the Austrian government.

-UNS-

(AO,13;B1;CO,13;E15)

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'U' DISCUSSES GOV. PERPICH'S
PROPOSED MEDICAL RESEARCH PLAN

(FOR IMMEDIATE RELEASE)

Gov. Rudy Perpich's proposed \$15 million for "accelerated" medical research at the University of Minnesota was the subject of discussion at a hearing of the education division of the House Appropriations Committee Tuesday.

Lyle French, University of Minnesota vice president for health sciences, said that while the University could use the money for on-going programs, he has doubts about spending that much on a one-time basis.

"If we were given the total appropriation, we would not spend the money willy-nilly. We would spend only the money we would be able to use effectively," French said.

French said that it is important for research projects to be funded on a recurring basis. "What we really need are perhaps fewer dollars on an on-going basis," he said.

"You can't simply go out and hire people and rent space for a year or two and then cut it off," he said.

The accelerated medical research proposal was part of Perpich's budget message in January. "For long-term reduction in the cost of medical care, increased effort must be devoted to gaining understanding of the mechanisms of disease," Perpich said.

"To be effective," he said, "this must be a continuing effort. I am confident that our first two years of experience will justify future legislative support."

Reps. Rod Searle, Independent-Republican of Janesville, and Ray Faricy, DFL-St. Paul, questioned French about the use the University would make of the money

(MORE)

and requested that someone from the governor's office defend the proposal. That meeting was scheduled for 2 p.m. Wednesday.

"Dr. French addressed the question very well. You don't just start up a program and then cut it off," Faricy said. "You're talking about building into the budget an additional \$15 million or a good portion of it for some years to come."

If the University were given the full amount, French said, it would be divided four ways. Some \$900,000 would go for a health-care research center, \$6.1 million for immunology and genetics, \$4.5 million for heart and cardiovascular research, and \$3.5 million for neurology and the neurosciences, he said.

French said the money would be used to boost research programs studying kidney disease, diabetes, cancer and strokes.

The health sciences currently receive about 31 per cent of their support money from the state, 25 per cent from private funds and 44 per cent from the federal government, French said. "If we had more research dollars we could increase the base and with that base increase the amount of non-state sources of research funds," he said.

The accelerated medical research program was not part of the University's request to the 1977 Legislature but was recommended by the governor to be part of the University appropriation.

The University's request had placed a higher priority on new faculty positions, salary increases and financial aid for students.

-UNS-

(AO, 15, 23, 24; B1, 5; CO, 1)

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UNIVERSITY POLICE INVESTIGATE
SERIES OF CAMPUS ROBBERIES

(FOR IMMEDIATE RELEASE)

University of Minnesota police are investigating the robbery of three University students in separate incidents Saturday, Sunday and Monday night on the knoll next to Peik Hall, which is on the north end of the Minneapolis campus.

Steve Kotula, 21, told University police he was accosted by three male juveniles about 7 p.m. Saturday as he walked along the pathway through the knoll. He was struck in the chest by one of the suspects and reported the loss of \$30.

The second robbery, on Sunday at 7:30 p.m., involved three suspects who matched the description given by Kotula. Ann Plante, 22, told University police the juveniles threatened her with a small, dull silver gun and took about \$6.

At 7:30 p.m. Monday, Marlene Berg, 23, was accosted by five juvenile males as she walked along the path. She also reported that a small gun was held by one of the suspects. She reported a loss of \$18.

Capt. William House said University police had the area under observation Monday night but missed the suspects. No incidents were reported on Tuesday night in the area. House said all of the suspects have been described as between 14 and 18 years of age. University police are working with Minneapolis police who reported another robbery a few blocks off campus about a half hour after the Saturday night robbery.

Some lights along the University walkway had burned out over the weekend but were replaced Monday, according to James O'Gara, principal engineer for physical plant administration. O'Gara said that although lights have been turned off across campus to conserve energy, no lights are turned off where they are necessary for safety.

-UNS-

(AO,5;B1)

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RUTH E. LAWRENCE

Word has been received of the death of Ruth E. Lawrence Jan. 25 in Santa Barbara, Calif.

Mrs. Lawrence, 86, retired from the University of Minnesota in 1957 after 23 years of service. A noted potter and sculptor, she was the first director of the University Gallery and did extensive research work in the use of Minnesota clays for pottery. At the time of her death she was working on a book on Christian symbolism in sculpture and painting.

Mrs. Lawrence received a bachelor's degree from the University in 1933 after the death of her husband, James C. Lawrence, who had been dean of administration and assistant to President Lotus D. Coffman. She had also studied at Ohio State University and, following her graduation, studied sculpture in Italy.

She is survived by a daughter, Mrs. Howard (Elizabeth) Cless of Claremont, Calif. Mrs. Cless is a former assistant for the liberal arts to the dean of the General Extension Division (now Continuing Education and Extension) and was a co-founder and co-director of the Minnesota Plan for the Continuing Education of Women.

Memorials are preferred to the University Gallery of the University of Minnesota.

-UNS-

(AO, 27, 31; B1; CO; E31)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
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JAY

IS COAL MORE DANGEROUS
THAN URANIUM?

By Brian Lowey
University News Service

Few people would like to have a power plant built in their back yard. Power plants would block the view, and some of them would be downright unhealthy.

The search for the healthiest type of power plant has occupied the imagination of engineers and environmentalists for over a generation. And now that people are taking a dimmer view of damming up rivers for hydroelectric power, the engineers have mostly produced two basic kinds of power generating plants, fossil-fuel and nuclear.

But which is safer? And which should be built in people's back yards?

Donald Barber, University of Minnesota professor of environmental health and a consultant on power plant emissions, would opt for a nuclear plant in his back yard, especially if the alternative was a coal-fired plant. In fact, he says "the nuclear power plant is one of the safest means of producing power ever devised."

With supplies of oil becoming increasingly scarce, it appears that coal is the most likely fuel for future fossil-fuel plants. But coal is basically a dirty fuel, Barber said.

Barber has studied the airborne emission problems presented by coal-fired generators, and he hasn't liked what he's seen.

"My fears of coal-burning plants are primarily associated with the relatively unknown toxicity of the oxides of sulfur and nitrogen," he said. These oxides pour abundantly out of the smokestacks of coal-fired plants, even those with pollution-control equipment, and they have been associated with respiratory disease.

"Right now we know more about the nuclear risks of power plants than we know about the chemical risks," he said, "and if we are truly concerned about the emissions from nuclear plants we should also be concerned about the emissions from fossil-fuel plants."

(MORE)

Most people would be surprised to discover that, along with these oxides, coal-fired plants also release radioactive isotopes into the atmosphere, and in some cases (depending partly on the type of coal burned) in greater concentrations than nuclear plants.

The National Council on Radiation Protection and Measurement has set standards regulating the release of these isotopes into the atmosphere. However, there is some uncertainty in the council whether to lower the standards to take into consideration some of the "daughter" products to which radioactive uranium and thorium ultimately decay.

In the coal industry these isotopes appear not only in smokestack emissions, but also throughout the coal processing cycle.

"If government radiation standards go down, we will have a problem with coal--no question about it," Barber said.

"It doesn't make any sense to me to restrict a nuclear plant to a certain level of radiation and then let a fossil-fuel plant belch out ten times that amount."

Indeed, Barber claims that radioactive emissions from coal-fired plants upwind of nuclear power plants can result in contamination of the air around the nuclear plants, making their radioactive emissions records look worse than they actually are. "There may be an interference problem," he said. "If our monitoring equipment were sophisticated enough, we could find out how great it is."

Present monitoring devices already measure radioactive levels which Barber says "are as close to nothing as you can get." Future generations of equipment will presumably bring us even closer. But until then, coal-fired plants present us with other, subtler, environmental problems worth studying.

"There is also the danger of toxic drainage from coal or ash stockpiles," Barber said. This drainage could not only leach out radioactive materials, but it can also alter the pH of ground water."

(MORE)

Coal also can be processed into a variety of petrochemicals which can be used in the manufacture of plastics, fertilizer, and even food. If we burn up all of our oil, and then burn up our coal reserves, these petrochemicals could become increasingly scarce. "And here we are shoveling our coal into boilers and watching all those oxides pour out of the stack," he said.

An alternative, at least for the time being, is to use reactors to produce power. "I don't look at reactors as a long-term solution to our energy problems," Barber said. "We need to pursue solar power vigorously, but the solution to this may be several decades away.

"I don't worry so much about the accident situation as far as reactors are concerned," he said. "The only thing I would worry about if I lived nearby would be being alerted in case of an accident.

"But so far I think the entire safety record of the nuclear industry has been excellent."

-UNS-

(AO,4,18;B1,9;CO,4;DO,4;E4,18;G31)

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'U' TO RETURN TO GRASS
IN MEMORIAL STADIUM

(FOR RELEASE 11 A.M. FRIDAY)

The TartanTurf in Memorial Stadium at the University of Minnesota will be torn up and replaced with grass before the next football season begins.

"At the end of the 1976 playing season, routine testing showed that the artificial turf would not stand another season," Walter H. Bruning, University vice president for administrative operations, said today.

"The material is no longer resilient enough to be a safe playing field," he said.

The turf consists of a carpet and pad on top of an asphalt surface. "The turf has gotten soft as a result of the disintegration from moisture and sunlight of the urethane underlayment absorption pad," said O. Jerome Nelson, assistant supervising engineer at the University.

Nelson said that to prevent injuries the pad must absorb enough energy and shock to break an athlete's fall.

Paul R. Giel, director of men's intercollegiate athletics, said he expects the natural turf to be a safer playing field. "I'll feel much better from a safety standpoint as far as the players are concerned," he said.

The installation cost of the turf and the asphalt underlay was \$360,000 when it was installed in 1970. The TartanTurf, manufactured by the Minnesota Mining and Manufacturing (3M) Company, carried a five-year warranty which has expired.

Bruning said that the turf would have to be replaced with grass because that is all the University's men's intercollegiate athletics program can afford.

A natural grass turf would cost about \$110,000, according to the University's estimates, and a new artificial Astroturf manufactured by Monsanto would cost around \$350,000, Bruning said. The 3M Company no longer sells TartanTurf in the United States.

(MORE)

"The larger expenditure would be inappropriate in view of the debate in the legislature over the construction of a new Twin Cities stadium," Bruning said.

The Gophers might play in the proposed stadium if it were constructed near the University's Minneapolis campus. The Industry Square site, which has been proposed, is located between the campus and downtown Minneapolis.

The return to natural turf would mean a \$20,000 annual maintenance cost and the stadium would again be used only for Gopher football games, Bruning said. Since natural turf must be maintained in good condition for football games, some recreational sports and physical education activities previously held on the artificial turf will have to be moved, he said.

The present field will be torn out immediately after the spring thaw and the planting will be done quickly so that the new lawn will be in good condition by the time the 1977 football season begins, Bruning said.

Bruning said the TartanTurf had been tested in 1974 and 1975 and found to be safe by an independent testing service. At the end of the 1976 season, routine tests found the field to be inadequate for another year, he said.

Bruning said he would prefer an artificial surface as long as it retained a good impact cushion. "What I would prefer and what we can pay for are two different things," he said.

Giel said the players should be able to adjust to the change to a natural turf. "I'm not hung up on the idea that you're going to be all that much faster and quicker on the artificial turf," he said. "I think that's a state of mind.

"I believe that if Cal Stoll has a good football team, if he has the talent, whether they're playing on natural grass or artificial turf, we'll be all right. I believe that if you've got the talent, you'll win most of your games," Giel said.

A number of professional football players and their players' association have been talking about the advantages of a natural turf. "At the Orange Bowl, they put grass back in," he said.

TURF

-3-

The funds to replace the playing field will be borrowed on the men's inter-collegiate athletics budget, Bruning said.

He said that agricultural extension experts have been consulting with Nelson's department on developing the new turf. Alternative uses for the artificial turf are being explored, he said, adding that part of it may be used in the fieldhouse as a baseball practice field.

-UNS-

(AO,1;B1;CO,1,15;DO,1;E15)

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Feb. 20-26

- Sun., Feb. 20---St. Paul Student Center Galleries: Montage by Mary Helen Harty, North Star Gallery; Photographs by Joe Gerber, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through Feb. 25. Free.
- Sun., Feb. 20---University Gallery: "People, Places and Things," through March 11; "Classical Narratives in Master Drawings," through March 15. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., Feb. 20---Natural History Film: "Moonwalk." Museum of Natural History aud. 2:30 p.m. Free.
- Tues., Feb. 22---Coffman Gallery: Photography by Robert Sengstacke and Lawrence Sykes. Gallery I and II. 10 a.m.-4 p.m. Mon.-Fri. Through Feb. 24. Free.
- Tues., Feb. 22---Lecture: "Women and Society in Bangladesh" by Joanna Kirkpatrick. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., Feb. 23---Jaques Gallery: Watercolors and Scratchboards by Dana Gardner. Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through April 10. Free.
- Wed., Feb. 23---Chicano Film Series: "I Am Joaquin" and "The Mayas." Theater-lecture hall, Coffman Union. Noon and 3:30 p.m. Free.
- Wed., Feb. 23---Discussion: "Theater and Literature" by John Donahue and Archibald Leyasmeyer. 305 Lind Hall. 3:15 p.m. Free.
- Wed., Feb. 23---Lecture: "Lord Thomas Cochrane: Freedom Fighter in the Early Nineteenth Century" by Tom B. Jones. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., Feb. 23---U Film Society: "Under the Volcano." Museum of Natural History aud. 7:30 and 9:15 p.m. \$1.50.
- Thurs., Feb. 24---International Days: "Hands Across the Sea." North Star Ballroom, St. Paul Student Center. 10 a.m.-2 p.m. Free.
- Thurs., Feb. 24---Concert: Jazz Ensemble. Great Hall, Coffman Union. 11:30 p.m. Free.
- Thurs., Feb. 24---Tribal Eye Film: "Across the Frontier." Gallery I, Coffman Union. Noon. Free.
- Thurs., Feb. 24---Lecture: "Sugar, Culture and Power" by Sidney W. Mintz. Murphy Hall aud. 4 p.m. Free.
- Thurs., Feb. 24---Concert: "An Evening of Classical Music" with Robert Vickery, harpsichord. Theater-lecture hall, Coffman Union. 7:30 p.m. \$1 students, \$2 public.

(OVER)

- Thurs., Feb. 24---Lecture: "The Theory and Practice of Arabic Music" by Afif A. Bulos. Murphy Hall aud. 7:30 p.m. Free.
- Fri., Feb. 25---International Days: "Hands Across the Sea." North Star Ballroom, St. Paul Student Center. 10 a.m.-6 p.m. and 7 p.m.-midnight. Free.
- Fri., Feb. 25---Concert: Ann Reed and Judy Foster. The Whole Coffeehouse, Coffman Union. Noon. Free.
- Fri., Feb. 25---Natural History Films: "Not So Solid Earth," "Volcanoes: Exploring the Restless Earth" and "Succession on Lava." Museum of Natural History aud. 12:15 p.m. Free.
- Fri., Feb. 25---U Film Society: "For a Few Dollars More," 7:30 p.m., and "The Good, The Bad, and The Ugly," 9:30 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
- Fri., Feb. 25---Opera Workshop: "Xerxes" by G. F. Handel. Scott Hall aud. 8 p.m. \$3 public, \$2 students.
- Fri., Feb. 25---Punchinello Players: "The Effect of Gamma Rays on Man-in-the-Moon Marigolds" by Paul Zindel, directed by Jann Iaco. Arena theater, North Hall. 8 p.m. \$2.
- Fri., Feb. 25---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 8 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Fri., Feb. 25---The Whole Coffeehouse: Reginald Buckner and Jack Hart. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, TOO and Positively 4th Street.
- Sat., Feb. 26---University Theatre: "Johnny Moonbeam and the Silver Arrow" by Joseph Golden, directed by Hyrum Conrad. Stoll theater, Rarig Center. 11 a.m. and 2 p.m. \$1.50. Tickets on sale at Rarig Center and Dayton's.
- Sat., Feb. 26---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 5:30 and 9 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sat., Feb. 26---U Film Society: "For a Few Dollars More," 7:30 p.m., and "The Good, The Bad, and The Ugly," 9:30 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
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(FOR IMMEDIATE RELEASE)

Feature story from the
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AND NOW FOR SOME GOOD
ENVIRONMENTAL NEWS

By Jeannie Hanson
University News Service

In these days of airborne asbestos fibers, PBB's, oil slicks and power-line controversies, good environmental news seems at a premium.

But at least one category of creature seems to be surviving it all: marine mammals are in better shape for survival today than they have been in 30 or 40 years, according to University of Minnesota ecologist Donald Siniff.

Although the seas are not exactly pristine, polar seals, polar bears and sea lions are still sliding across their ice in relative peace. Sea cows, otters and even porpoises swim in great numbers, though they still must dodge motor boats, tuna nets and abalone fishermen. Among the marine mammals, only whales are in extreme danger from man, Siniff said.

Much of the credit for protection of sea mammals goes to the Marine Mammal Protection Act, passed in 1972. Siniff is one of three scientists on the Congressional Commission appointed to administer the act.

According to Siniff, the act has good points and bad. Whereas strict procedures may protect the animals, bureaucratic red tape can sometimes push polar bears and seals one step closer to an end as dog food, winter coats and trophies.

Thousands of porpoises owe their lives to the Marine Mammal Protection Act, Siniff said. A few years ago, crews were sent to observe the behavior of porpoises caught in the nets of tuna fishermen. Until then, the tuna industry had claimed that porpoises gave up too quickly and drowned under water in the nets.

But preliminary observations indicated that the porpoises surfaced for life-saving air after 10 or 15 minutes. Now efforts are being made to force tuna fishermen to wait this long before hauling in their nets. They also are being told to use a finer mesh net that porpoises can jump over.

(MORE)

Much more research like this must be done, Siniff said. About two-thirds of the commission's budget goes toward research into marine mammal behavior, census estimates, survival rates, and their conflicts with people. "We're gathering information on the harp seal and Hawaiian monk seal now," Siniff said.

Harp seals are killed with clubs by seal hunters. The seals' population seems to be stable, but humane killing methods must be developed, Siniff said.

The population of Hawaiian monk seals is threatened by souvenir hunters looking for glass fishing balls among offshore rocks. They scare the females away from their pups and the pups die. If a "critical habitat" area were set aside, souvenir hunters would be excluded from the certain rocky atolls where seals reside, Siniff said.

Designations like "critical habitat" and "threatened species" are the weapons of the Marine Mammal Act. California sea otters in the Big Sur area who compete with the local fishing industry for abalones may need to be called "threatened" to be protected. "The commission has recommended this, and the Interior Department is now considering it," Siniff said.

Among the commission's regular tasks is ruling on permits. Anyone who wants to touch marine mammals now needs a permit to do so. The commission also reviews international treaties dealing with marine mammals. Marine mammal hunting inside the new 200-mile national limits by foreign countries will be an issue soon.

Another treaty covering Antarctic seals--designed to protect leopard seals, southern elephant seals, Weddell seals, crabeater seals, ross seals and southern fur seals--provides for exchange of scientific information and permits limited hunting.

"The treaty role points up one of the main problems with the Marine Mammal Protection Act," Siniff said. As with any international treaty, there is no arm for enforcement. The United States can and has banned import of any product made from marine mammals, but if another country's fishing industry takes too many marine mammals, the only recourse is an international boycott. "But an import ban on Toyotas as retaliation against Japan's whale killing is pretty unlikely," Siniff said.

(MORE)

Bureaucracy is a problem, too, although the procedures seem to be becoming more streamlined, he said. Permits ruled on by the commission must be routed through the Washington maze. Seals, sea lions, porpoises, and whales "belong" to the Commerce Department, the State Department handles all international negotiations, and the Interior Department has charge of sea otters, sea cows and polar bears.

Siniff would rather see decisions made quickly, even by compromise, so that fishing industries and hunters are not tempted to take the law into their own hands. He would like to see a special "Science Court" set up which would have only scientific issues on its docket, research information available to it and enforcement power.

Another way to simplify decisions, Siniff said, would be to give more authority to individual states to protect their own marine mammals, subject to federal check. Alaska has asked for this right and may well receive it, he said.

"Whatever the method of protection, I guess I'm just biased in favor of marine mammals," Siniff said. He has studied several species of Antarctic seals and returned recently from a two-month stint studying the crabeater seal.

The Marine Mammal Protection Act has done a lot to protect marine mammals, Siniff said, but part of its success should be attributed to its clients. "Marine mammals appeal to people, with their brown eyes and fur," Siniff said. "We want plenty of them to stay around to be popular."

-UNS-

(AO,4,18;B1,2;CO,4;DO,4;E4,18)

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RIGERT TO SPEAK AT 'U'

(FOR IMMEDIATE RELEASE)

Joe Rigert, staff writer and member of a special reporting group for the Minneapolis Tribune, will give a free public talk at the University of Minnesota Wednesday (Feb. 23) at 3:30 p.m. in Murphy Hall auditorium.

Rigert will discuss photojournalism in the Twin Cities and his recent work in South Africa.

"Rigert's work is a striking example of one photojournalist's attempt--through the careful combination of pictures and words--to break some of the stereotypes that surround South Africa's people, politics and land," said Gregg Pratt, president of the University chapter of the Society of Professional Journalists, a sponsor of the lecture.

-UNS-

(AO,2,9,20;B1)

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NEWS PEOPLE: For further information
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**SPRING REGISTRATION OPEN FOR
CHILDREN'S ART CLASSES**

(FOR IMMEDIATE RELEASE)

Registration for children's art classes is now open at the University of Minnesota.

Children between the ages of five and ten may enroll for the series of ten Saturday classes, meeting from 10 a.m. to 12:30 p.m., March 26 through June 4.

The classes focus on exploration of art in many media and on the children's feelings of their own worth as artists, rather than on formal training. Composition and design elements, such as color and texture, are also stressed.

The fee for the course, sponsored by the University's Institute of Child Development and the Art Education Program, is \$20. For further information and to register, call 373-9851.

-UNS-

(AO, 2, 31; B1)

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UNIVERSITY PROFESSOR RECEIVES
CHEMICAL SOCIETY AWARD

(FOR IMMEDIATE RELEASE)

Irvin E. Liener, University of Minnesota professor of biochemistry, has been named recipient of the 1977 Kenneth A. Spencer award for outstanding achievement in agricultural chemistry.

The Spencer Award, administered by the Kansas City section of the American Chemical Society, recognizes important contributions to the field of agricultural and food chemistry.

Peter F. Lott, professor of chemistry at the University of Missouri-Kansas City and chairman of the Spencer Award Committee for 1977, said that studies by Liener have contributed significantly to the current understanding of plant food production and processing.

Liener earned his bachelor of science degree in food technology at the Massachusetts Institute of Technology and his doctor of philosophy degree in biochemistry and nutrition at the University of Southern California. He has been at the University of Minnesota since 1949.

His research has evaluated toxic factors in legumes and their importance in human, animal and insect nutrition. Liener has received international recognition for his work on toxic constituents in plant protein materials.

The Spencer Award includes a medal and an honorarium of \$1,000.

-UNS-

(AO,4;B1;CO,4)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
February 22, 1977

MTR
N47
JAP

HUMAN BRAIN IS FACTORY
FOR 'NATURAL DRUGS'

By Jeannie Hanson
University News Service

By the year 2020, the human brain may have become a factory for any drug the body might need, according to Sheldon Sparber, psychopharmacologist at the University of Minnesota.

Scientists discovered not long ago that the brains of normal people can produce powerful pain-killers. These substances seem to imitate morphine but are 30 to 40 times more powerful.

"It's not surprising that brain substances have powerful effects on behavior," Sparber said, since the brain "masterminds" aspects of human behavior from mood fluctuation to body temperature.

Although dramatic, the brain's control of pain is short-lived. Unlike the effects of hormones, which may last for hours, the effects of brain-produced pain-killers last from only a few minutes to an hour or slightly more at the most, depending on the substance involved.

"Total or long-term blockage of pain has probably not developed because it could be very dangerous," Sparber said. "We need to know we are hurt so we can take steps to be cured and learn to avoid future damaging injuries or situations."

Natural pain-killers have been found in the spinal fluid of people suffering from extremely painful neurological disorders, in human brain tissue and in the pituitary glands of rats, pigs, cows, sheep, camels and people.

Not surprisingly, the chemical receptors for these natural pain-killers are concentrated in areas of the brain traditionally associated with pain perception and the origin of moods.

The effects of the pain-killers range from subtle mood shifts to real pain relief and can result in stiff, immobile states when administered in very large doses to rats.

Although scientists are still in the early stages of investigation, they have discovered so far what seems to be a family of these drugs called endorphins, with a sub-group called enkephalins. Both are addictive in animals.

The way they work is unclear, Sparber said. The enkephalins may be neurotransmitters, helping impulses move--or not move--through the nervous system. Or the endorphins, the larger group, may be the active ones, with the enkephalins merely stored on the brain's nerve endings.

The role of Sparber's lab is to help sort out such questions. He is testing the behavioral effects of both families of these natural drugs, including their addictive potential for rats. Such study is necessary before testing with humans can begin.

The search is on to discover if the substances also are present in the hypothalamus and limbic system, Sparber said. Radioactive tracers are being used so that experimental animals are not hurt and the release of the substances can thus be measured.

The effect of the substances on the brain's narcotic receptors is being studied in the lab of Robert Elde, University of Minnesota anatomist, and pharmacologist Akira Takemori is studying localization in the whole brain.

As with any new drug, drug companies are interested in these substances, Sparber said. Since the substances are relatively simple molecules, they could be modified for commercial production--to make their effects last longer, to allow them to cross the blood-brain barrier and proceed to the brain, and, if necessary, to make them non-addictive. This development is, however, a long way off.

The implication of "natural drugs" in the brain may be even broader. Other families of "natural drugs" could be found, Sparber said. Some may be hormones which are already known to affect behavior, the central nervous system, and sexual development.

-UNS-

(AO,22,23,24,25;B1,4,5;CO,5;DO,5;E22,23,24,25;G2,5,31)

UNIVERSITY OF MINNESOTA NEWS EVENTS

(FOR IMMEDIATE RELEASE)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 22, 1977

MTR
N47
JAP

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

'U' TO PRESENT HANDEL OPERA

George F. Handel's comic opera, "Xerxes," will be presented by the University of Minnesota Opera Workshop Friday and Saturday (Feb. 25 and 26) at 8 p.m. in Scott Hall auditorium on the Twin Cities campus.

Producer and director of the production is Vern Sutton, associate professor of music.

The 20-member cast will be accompanied by a 15-piece orchestra.

Admission is \$3 for the general public and \$2 for students. Tickets may be reserved in 105 Scott Hall or by phoning 373-3546.

###

INSTRUMENTAL ENSEMBLE TO PERFORM

A University of Minnesota student instrumental ensemble will perform Park's "Fantasia" and Stravinsky's "The Soldier's Tale" in a free public concert Friday, March 4, at 8 p.m. in Scott Hall auditorium on the Twin Cities campus.

David Baldwin, assistant professor of music, will conduct the seven-piece group which includes violin, percussion, cornet, bassoon, bass, clarinet and trombone.

-UNS-

(AO, 2, 29; B1; CO, 2)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 22, 1977

MTR
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JAP

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

MIKE ELLIOT TRIO AT 'U'

(FOR IMMEDIATE RELEASE)

The Mike Elliot Trio will perform Wednesday, March 2, at 8:30 p.m. in the West Bank auditorium on the University of Minnesota Twin Cities campus.

The event is part of the West Bank Jazz Forum series.

The trio consists of members of the jazz group Natural Life. Leader Mike Elliot plays guitar and is joined by Billy Peterson on acoustic bass and Paul Lagos on drums.

Admission is \$1. Tickets are on sale in advance in 110 Anderson Hall on the West Bank and will also be sold at the door.

-UNS-

(AO,2,29;B1;CO,2)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 23, 1977

MTR
N47
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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

WANDA GAG HONORED BY KERLAN COLLECTION

(FOR RELEASE MARCH 11, 1977--the 84th anniversary of the birthday of Wanda Gag)

The late Wanda Gag has been awarded the 1977 Kerlan Award of the Kerlan Collection, research center for children's literature at the University of Minnesota.

Gag, who wrote and illustrated the children's classic, "Millions of Cats," is being honored for her significant contributions to children's literature.

The Kerlan Collection includes a number of Gag works, including the complete manuscripts and illustrations for "The ABC Bunny," "Gone Is Gone," "Millions of Cats," and "Snippy and Snappy."

Born in New Ulm, Minn., Gag attended art schools in St. Paul, Minneapolis and New York. Prior to her death in 1946 she lived and worked in New York and New Jersey.

The award has been accepted by her family, including her sister Flavia, also an author and illustrator.

A committee is planning an event in May to celebrate the award.

-UNS-

(AO, 14, 16; B1; CO, 14, 16; DO, 14, 16; E2, 16; F11)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 23, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

LOPPNOW RECEIVES HONOR

(FOR IMMEDIATE RELEASE)

Merle Loppnow, assistant to the director of the University of Minnesota Theatre, was honored last week at the Region 10 American College Theatre Festival in Winston-Salem, N.C. He received an award for dedication to the festival. Since the inter-collegiate program began nine years ago, he has served as a judge or participant in most of the festivals held throughout the country.

Loppnow, who recently received a similar award at the Region One festival in Fresno, Calif., will retire from the University in June.

-UNS-

(AO, 2, 30; B1; CQ, 2; DO, 2; E30)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
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Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
February 24, 1977

VACCINE NOW USED FOR
SPLEEN PATIENTS AT U OF M

By Jeannie Hanson
University News Service

People whose spleens have been surgically removed or damaged by disease are under greater risk of dying from bacterial blood infection than those with normal spleens.

But medical researchers at the University of Minnesota have begun using a preventive dose of penicillin and pneumococcal vaccine in an attempt to bring the problem under control, according to Drs. William Krivit and Scott Glebink of the pediatrics department.

The spleen is a two-ounce, six-inch organ in the upper left portion of the abdomen. Acting as a "garbage disposal" for the blood, it destroys old and damaged blood cells and produces antibodies against bacteria.

Without a spleen, a person has a much greater chance of developing sepsis, an overwhelming bacterial blood infection which is fatal 50 per cent of the time. Sepsis, most often caused by the bacteria pneumococcus, can occur at any time following spleen removal, months or years later.

The pneumococcal vaccine is being given to patients whose spleens have been removed to determine if it protects them from pneumococcal infection. Patients are also being continued on penicillin until it is determined whether or not the vaccine is effective.

First used successfully in the early 1900's, the vaccine against pneumococcal infections was overshadowed in the 1940's by the discovery of penicillin and other antibiotics. Interest has been renewed in the vaccine over the past eight years as researchers have found that pneumococcal infections still occur as frequently as they did prior to the development of antibiotics.

(MORE)

Pediatricians are interested in the vaccine both for patients without spleens and for young children whose middle-ear infections are most often due to pneumococcus.

"Middle-ear infections," Giebink said, "represent a major nationwide child health problem since nearly every child (75 to 90 per cent) has at least one middle-ear infection before starting school; many (20 to 30 per cent) of those with an initial infection have recurrent ear infections."

Based on the vaccine's past performance in people with spleens, clinical trials started last fall to evaluate the vaccine in people without functioning spleens.

"We appreciate the spleen more now than we used to," Krivit said. "Now doctors try to repair it, preserve part of it, or wait and see if it repairs itself rather than remove it."

-UNS-

(AO, 22, 23, 24; B1, 4, 5; CO, 5; DO, 5; E22, 23, 24)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 24, 1977

NEWS PEOPLE: For further information
contact BILL HUNTZICKER, 373-7512

'U' FACULTY SPOKESMAN DEFENDS
REQUEST FOR TEACHING POSITIONS

(FOR IMMEDIATE RELEASE)

A spokesman for the University of Minnesota faculty took issue Wednesday with charges that the University is overstaffed because enrollment has not increased as much as had been predicted.

"We are simply forced to hire people who are not related to the student-faculty ratio," said Ken Keller, chairman of the seven-member faculty consultative committee, to the education division of the House Appropriations committee.

The committee met on the St. Paul campus for the last of its hearings on the University's \$366.6 million biennial request to the 1977 Legislature.

In earlier hearings, several committee members had said that the University is overstaffed because it prepared for more students than actually enrolled last fall.

Keller, a professor of chemical engineering, said the University must add expertise to improve its teaching offerings without cutting back in other areas.

"There is, for example, a request for a sculptor at the Morris campus," Keller said. "That program can't exist as a major without the teaching position. This request would not only improve the student-faculty ratio, but also improve the program.

"The fact that we are interested in solar energy and we add a faculty member with that expertise doesn't mean that we can remove that money from the study of coal gasification or other alternative energy sources. The hiring of someone who can do carbon-dating doesn't reduce the need for the classicist who goes to the archaeology site," Keller said.

Failure to fund enrollment-related requests, however, places an additional burden on faculty members who would otherwise be doing research, he said.

(MORE)

The University's request had anticipated an enrollment bulge between now and 1981 with an enrollment decline after that time.

University President C. Peter Magrath has requested 205 new, permanent faculty positions on the assumption that about 660 faculty members will reach retirement age during the 1980's.

Keller said he has problems with a proposed alternative of hiring temporary faculty during the period of enrollment growth. "You can't really get the best people for one year," he said. "You get those people who have to take a job."

Keller said the University has a "multiple focus" as both a state and federal institution, bringing in about \$53 million in non-state research money annually.

"In order to draw our faculty, nationally, we have to be competitive in salaries," Keller said. "We have to draw our students nationally. One of the greatest drawing cards for faculty is a good student body," he said.

Keller supported the University's request for faculty salary increases of 11 per cent the first year and eight per cent the second year of the biennium, which would include funds for merit increases.

Magrath said the \$37,551,000 the University is requesting for pay raises would keep the University competitive with "our traditional marketplace" of the Big Ten public universities and the University of California.

"The salary request is the No. 1 emphasis and the No. 1 priority of the University in this biennial request," Magrath said. "In general, there has been an erosion of faculty purchasing power if you go back ten years."

Gov. Rudy Perpich has made no recommendation yet on faculty salary increases and his budget proposals recommended against the University's requested new positions.

-UNS-

(AO, 1; B1, 10; CO, 1)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 24, 1977

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NEWS PEOPLE: For further information
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'U' SEEKS STATE FUNDS
FOR WOMEN'S ATHLETICS

(FOR IMMEDIATE RELEASE)

University of Minnesota officials revealed Wednesday how they would spend the more than \$2.5 million that Gov. Rudy Perpich has recommended for intercollegiate athletics at the University if it were appropriated by the 1977 Legislature.

Walter H. Bruning, vice president for administrative operations, defended the \$1.25 million the University requested for the next two years as necessary to bring it into compliance with federal law requiring similar opportunities for both men and women in sports.

In his biennial budget message, Gov. Perpich recommended an equal amount for men's intercollegiate athletics, which the University had not requested.

Bruning said the University would spend \$917,495 of the money for men's sports on the Twin Cities campus over the next two years and divide the rest between the other four University campuses for use in men's intercollegiate athletics.

He said the Twin Cities funds would pay for the "non-revenue" sports which have previously been supported by income from football, basketball and hockey.

Bruning said the money would allow the University to pay \$100,000 a year toward the \$450,000 deficit in men's sports, pay \$75,000 a year toward the Bierman Field Athletic Building debt, pay off anticipated deficits, pay off the new turf in Memorial Stadium, and remodel existing facilities on the Twin Cities campus.

Bruning said the money for men's intercollegiate athletics on the other campuses would be divided as follows: Crookston, \$52,889 for the two years; Duluth, \$190,600; Morris, \$47,507; and Waseca, \$56,109.

Women's intercollegiate sports would be made equitable with the men's programs in the areas of coaching, travel, meals and lodging and equipment. "We think it's only fair that women have equal opportunities to travel to out-of-town activities as the men have," Bruning said.

Bruning said he believes that no women's intercollegiate athletics are directly comparable to the men's football program so that the University doesn't plan to provide a budget for women equal to that of the Gopher football program.

-UNS-

(AO,1,15;B1,10;CO,1;E15)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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MINNEAPOLIS, MINNESOTA 55455
TELEPHONE: (612) 373-5193
FEBRUARY 25, 1977

UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
Feb. 27-March 5

- Sun., Feb. 27---Jaques Gallery: Watercolors and Scratchboards by Dana Gardner. Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through April 10. Free.
- Sun., Feb. 27---University Gallery: "People, Places and Things," through March 11; "Classical Narratives in Master Drawings," through March 15. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., Feb. 27---Concert: University Symphony Bands I and II. Northrop Aud. 2 p.m. Free.
- Sun., Feb. 27---Natural History Films: "Not So Solid Earth," "Volcanoes: Exploring the Restless Earth" and "Succession on Lava." Museum of Natural History aud. 2:30 p.m. Free.
- Sun., Feb. 27---Recital: Nancy Paddleford, piano. Scott Hall aud. 4 p.m. Free.
- Mon., Feb. 28---St. Paul Student Center Galleries: Japanese Sumie Paintings by Mitsuko Evans, North Star Gallery; "Our American Heritage" photographs by Del Cass, Rouser Room Gallery. 3 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through April 1. Free.
- Mon., Feb. 28---Two-Bit Flick: "Flash Gordon" and "Roadrunner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Mon., Feb. 28---Lecture: "Macromolecules From a Molecular Viewpoint" by Paul J. Flory. 175 Science Classroom Bldg. 4:30 p.m. Free.
- Mon., Feb. 28---Coffman Gallery: "Light Works" by Mark Larson. Gallery I, Coffman Union. Opening: 7:30-9:30 p.m., regular hours: 10 a.m.-4 p.m. Free.
- Mon., Feb. 28---Recital: John Huntington, trombone. Scott Hall aud. 8 p.m. Free.
- Tues., March 1---Discussion: "Women and Fiction" by Grace Paley. Women's Lounge, Coffman Union. 3:30 p.m. Free.
- Tues., March 1---Poetry Reading: Grace Paley. Theater-lecture hall, Coffman Union. 8 p.m. Free.
- Tues., March 1---University Theatre: "Bottom's Ghost" by Nathan W. Everett, directed by Robert Leff. Experimental Theater, Rarig Center. 8 p.m. Free.
- Wed., March 2---Chicano Film Series: "Mexican American: Heritage of Destiny." Theater-lecture hall, Coffman Union. Noon. Free.
- Wed., March 2---Discussion: "Graphic Arts and Literature" by Virgil Burnett. 305 Lind Hall. 3:15 p.m. Free.

(OVER)

- Wed., March 2---Lecture: "Divided Heaven: East Germany and its Literature" by Frank D. Hirschbach. 10 Blegen Hall. 3:15 p.m. Free.
- Wed., March 2---Chicano Film Series: "El Teatro Campesino--parts 1 and 2." 489 Ford Hall. 7 p.m. Free.
- Wed., March 2---Jazz Concert: "Space Station" and "Shangoya." North Star Ballroom, St. Paul Student Center. 7 p.m. \$2 students, \$2.50 public.
- Wed., March 2---Concert: "St. Matthew's Passion" by Bach, with Concert Choir, Chamber Singers and Orchestra. Northrop Aud. 7:30 p.m. Free.
- Wed., March 2---U Film Society: "The Mongols," 7:30 p.m., and "Still Life," 9:30 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
- Wed., March 2---University Theatre: "Bottom's Ghost" by Nathan W. Everett, directed by Robert Leff. Experimental Theater, Rarig Center. 8 p.m. Free.
- Thurs., March 3---University Gallery: Lorna Ritz, faculty artist. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Through March 17. Free.
- Thurs., March 3---Lecture: "Paradoxes and Contradictions in Contemporary Urban Communities" by David Cooperman. Theater-lecture hall, Coffman Union. 12:15 p.m. Free.
- Thurs., March 3---Chicano Film Series: "Yo Soy Chicano." Theater-lecture hall, Coffman Union. 3:15 p.m. Free.
- Thurs., March 3---Chicano Film Series: "Mexican American: Heritage of Destiny." 489 Ford Hall. 7 p.m. Free.
- Thurs., March 3---Dance: "An Evening of Modern Dance" with Nancy Hauser Apprentice Company, Minnesota Dance Theater and Choreogram Dance Theater. Theater-lecture hall, Coffman Union. 7:30 p.m. \$1 students, \$2 public.
- Thurs., March 3---U Film Society: "Lover's Wind," 7:30 p.m., and "Stranger and the Fog," 9 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
- Thurs., March 3---Dance: Bayanihan Philippine Dance Company. Northrop Aud. 8 p.m. \$6, \$5, \$4, \$3.50, \$2.50.
- Thurs., March 3---Recital: Ruben Haugen, saxophone, and Charles Forsbert, piano. Scott Hall aud. 8 p.m. Free.
- Thurs., March 3---University Theatre: "Bottom's Ghost" by Nathan W. Everett, directed by Robert Leff. Experimental Theater, Rarig Center. 8 p.m. Free.
- Fri., March 4---Recital: Erich Leinsdorf and the Minnesota Orchestra. Scott Hall aud. 11:15 a.m. Free.
- Fri., March 4---Concert: Feast of Circle Dancers. The Whole Coffeehouse, Coffman Union. Noon. Free.
- Fri., March 4---Natural History Films: "In Search of a Mate" and "Mussel Specialist." Museum of Natural History aud. 12:15 p.m. Free.

(MORE)

CALENDAR

-3-

Fri., March 4---U Film Society: "Exhibition." Museum of Natural History aud.
7:30 and 9:30 p.m. \$2.

Fri., March 4---Concert: "The Evolution of Black Music." Great Hall, Coffman
Union. 8 p.m. \$2.50.

Fri., March 4---Punchinello Players: "The Effect of Gamma Rays on Man-in-the-Moon
Marigolds" by Paul Zindel, directed by Jann Iaco. Arena theater, North Hall.
8 p.m. \$2.

Fri., March 4---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson
Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 8 p.m.
\$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig
Center and Dayton's.

Fri., March 4---The Whole Coffeehouse: Ben Sidran. Coffman Union. Doors open
8:30 p.m. \$3. Tickets on sale at MSA, TOO and Positively 4th Street.

Sat., March 5---Minnesota Composers Forum. 19 Scott Hall. 1 p.m. Free.

Sat., March 5---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson
Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 5:30
and 9 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale
at Rarig Center and Dayton's.

Sat., March 5---U Film Society: "Exhibition." Museum of Natural History aud.
7:30 and 9:30 p.m. \$2.

Sat., March 5---Punchinello Players: "The Effect of Gamma Rays on Man-in-the-Moon
Marigolds" by Paul Zindel, directed by Jann Iaco. Arena theater, North Hall.
8 p.m. \$2.

Sat., March 5---The Whole Coffeehouse: Ben Sidran. Coffman Union. Doors open
8:30 p.m. \$3. Tickets on sale at MSA, TOO and Positively 4th Street.

-UNS-

(A0;B1;F2)

UNIVERSITY OF MINNESOTA NEWS EVENTS

(FOR IMMEDIATE RELEASE)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
FEBRUARY 28, 1977

MTT
N47
JAP

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

'U' TO PRESENT 'ST. MATTHEW PASSION'

Two complete orchestras, separated on the stage to emphasize the work's anti-
phonal design, will be employed in the University of Minnesota production of Bach's
"St. Matthew Passion" Wednesday (March 2) at 7:30 p.m. in Northrop Auditorium.

The work will be sung in German by the University Concert Choir and Chamber
Singers with soloists and orchestra. Thomas Lancaster, associate professor of music,
will be the conductor.

Principal vocal soloists will be Donald Hoiness, Evangelist; Stephen Marquart,
Jesus; Eileen Davis, soprano; Janis Hardy, alto; Robert Beidler, tenor and Michael
Riley, bass.

The event is open to the public with no admission charge.

###

ART STUDENTS EXHIBIT WORK

Art works by two University of Minnesota students, Laurel O'Gorman and Suzanne
Palmer, will be exhibited through March 31, at the 6th St. Gallery, 123 W. 6th St.,
St. Paul.

The showing will include oils, watercolors and drawings.

-UNS-

(AO, 2, 29, 31; B1; CO, 2)

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Telephone: (612) 373-5193
February 28, 1977

MTR
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AG

RATS, SALAMANDERS AND TOADS
SHIVER IN MINNESOTA'S COLD

By Brian Lowey
University News Service

Somewhere in Minnesota a toad has just awakened deep in his burrow. He blinks and shakes the sleep from his eyes.

"Yipes!" he thinks to himself. "It's freezin' cold in here!"

The frost line, unusually deep this year, has just reached his burrow. If he wants to survive, he'll have to crawl out from under the covers and dig his burrow down deeper. Like many other creatures he is in trouble, for he has been caught in the second coldest winter in Minnesota history.

John Tester of the University of Minnesota's ecology department is something of a toad expert. In fact, he spent a good deal of time a few years ago just studying what the little fellows do in their burrows all winter.

"We found that the toads we studied tended to move up and down with the frost line," he said. "And if we have an extremely cold winter they could suffer a higher mortality rate."

Some reptiles, Tester says, tend to seek out warm places when the weather begins to turn sour in the fall. That is one reason homeowners often come up with all sorts of slimy things when they reach down into their window wells.

"In the fall salamanders, for example, are attracted to houses by the warmth created by sunlight striking the side of the home. But while they're walking around the base of the house they sometimes trip and fall into the window wells."

Almost all of us are pulling for the toads and salamanders in their fight against the cold, but there are a few among us who would be nothing less than delighted if the state's annual harvest of mosquitoes never emerged next spring to drill holes in our arms and land in our potato salads. A University of Minnesota entomologist, however, says no such luck.

(MORE)

"Most insects that have lived in Minnesota have lived here for a long time," says extension entomologist Richard Beige. "The only thing that might occur is right at the beginning of the summer when there might not be as many insects as before. But that won't last."

Bugs apparently can put up with almost anything, but heavily water-dependent mammals cannot. This winter's cold combined with last year's drought is going to hit some of them hard. Harrison Tordoff, director of the Bell Museum of Natural History, warns that some swamps and pugholes are unusually low this year, and thus are more apt to freeze solid.

"If this happens, organisms that winter on the bottom of ponds--like frogs and turtles--are going to die," he said. And the effects of the cold will also be felt outside of the ponds.

"A fair number of animals that are at the northern limits of their range could be pushed back," Tordoff said. "This includes things like bobwhites, quail, cardinals and tufted titmice."

In fact, researchers at the Bell Museum are teaming up with the listeners of a Twin Cities radio station (WCCO) to monitor this severe winter's impact on six bird species whose range extends into Minnesota. Listeners will mail observations of the birds to the Bell Museum where the results will be collected and analyzed. A preliminary report of the project's findings should be available by spring.

One of the animals that the Minnesota Department of Natural Resources (DNR) is concerned about this winter is the beaver. Most of Minnesota's beavers live in the northern half of the state where low water levels are forcing them out of their lodges, thus exposing them to bitter cold and hungry predators. In fact, the DNR is now preparing to begin ground checks and aerial surveys to determine the extent of the problem.

Beneath the ice of Minnesota's frozen lakes and ponds is another animal population which may suffer because of the severe winter. William Schmid, who teaches a course in winter ecology at the University of Minnesota, says the dangers to fish are very real.

(MORE)

"The biggest thing that might happen with an early freeze and little snow cover," he said, "is the possibility that very shallow waters might become depleted of their oxygen. Game fish would go first and the rough fish second.

"Another thing to worry about is the frost depth. A lot of small mammals hibernate underground, and if the frost reaches them they will have to burn up their stored energy faster to keep warm," he said.

None of this is of concern to Minnesota's rat population. In fact, according to rat expert Ray Prochaska of the Minneapolis Health Department, it is business as usual this winter for the state's rats.

"Most that we find in Minneapolis are in the railroad yards where they have a large supply of grain that has been spilled out of grain cars," he said, "but if they don't have enough grain stashed away in their burrows, it's no problem for them to go out in the cold and get more."

Inside the burrows things are quite cozy for the rodents. In fact, Prochaska reports that the burrows are so warm that "as you walk by them you can see lots of vapor and steam pouring out."

Most of the other rats live in sewers, which seem to be likely enough places for rats.

"The rats that live in the sewers are healthier than the ones in the railroad yards," Prochaska says. "It's because the rats in the sewers have more variety in their diet."

-UNS-

(AO,4,18;B1;CO,4;G2,5)

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MARCH 1, 1977

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NEWS PEOPLE: For further information
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REGISTRATION OPEN FOR SPRING
U OF M EXTENSION CLASSES

(FOR IMMEDIATE RELEASE)

Mail registration is now open for more than 600 spring-quarter extension classes offered by the University of Minnesota.

Extension classes are conducted days, evenings and weekends in 21 different locations and cover a wide range of topics from business writing to labor arbitration.

There are no entrance requirements and a high school diploma is not necessary. Students can pursue degrees and certificates through Extension Classes, but if no credit is sought, tuition is reduced.

In-person registration will open March 14 and registration will continue through March 23.

For a bulletin of classes, call 376-3000. Program counseling during the day or the evening is available through Extension Counseling, 373-3905.

Registration times and places are: 101 Wesbrook Hall, Minneapolis campus, 8 a.m. to 8 p.m. March 14 through 17, 21 through 23, and 8 a.m. to 4:30 p.m. March 18; MacPhail Center, downtown Minneapolis, 8:30 a.m. to 8 p.m. March 14 and 23, 8:30 a.m. to 6 p.m. March 15, 17, 21, 22, and 8:30 a.m. to 4:30 p.m. March 18; Skyway level of the American National Bank Building, St. Paul, 9 a.m. to 5 p.m. March 14 through 23; at various suburban schools for courses scheduled there, from 8:30 a.m. to 4 p.m. March 14 through 18 and March 21 and 8:30 a.m. to 8 p.m. March 22 and 23.

For more information, call the Extension Classes registration office at 373-3195.

-UNS-

(AO, 3; B1, 8)

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NEWS PEOPLE: For further information
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LORNA RITZ EXHIBITS ART WORKS

(FOR IMMEDIATE RELEASE)

An exhibition of oil paintings and drawings by Lorna Ritz is now open through March 17 in the University Gallery at the University of Minnesota.

Ritz is currently an assistant professor in the University's studio arts department. She has a bachelor of fine arts degree from Pratt Institute in Brooklyn, N.Y., and a master of fine arts degree from Cranbrook Academy of Art, Bloomfield Hills, Mich. From 1973 to 1975 she was a painting instructor at the Rhode Island School of Design.

Her experience includes working with Paolo Soleri at his desert construction site, Cosanti Foundation, Scottsdale, Ariz., and a residency at the Roswell Museum Art Center in New Mexico. She has had exhibitions of her painting and sculpture throughout the New England states.

The University Gallery is open free to the public from 11 a.m. to 4 p.m. Monday, Wednesday and Friday; from 11 a.m. to 8 p.m. Tuesday and Thursday, and from 2 to 5 p.m. Sunday.

-UNS-

(AO, 2, 31; B1; CO, 2; E31)

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**STOKES WORK TO BE FEATURED
IN UNIVERSITY CONCERT**

(FOR IMMEDIATE RELEASE)

"Hennepin Avenue Marches, Struts!" composed by Eric Stokes, will be featured in a free public concert by the University of Minnesota Wind Ensemble Sunday (March 6) at 3 p.m. in Northrop Auditorium.

The 52-member band will be directed by Mark Lammers, acting director of University Bands.

The Stokes work was composed in 1969 while Stokes was on leave and living in Vienna, Austria. The work was commissioned by the Frank B. Kellogg High School Band of Roseville, which was then directed by Lammers.

The composition employs a number of triangles of differing sizes, a bass guitar, a sizzle cymbal, chimes and singing by members of the band and an off-stage ensemble. Both Stokes and Lammers will conduct the work.

Also on the program are Suite of Old American Dances by Robert Russell Bennett, Kanon by Johann Pachelbel, Sketches on a Tudor Psalm by Fisher Tull and The Wind and The Lion by Jerry Goldsmith.

-UNS-

(AO, 2, 29; B1; CO, 2)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
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March 2, 1977

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SHUTTLE WILL REPLACE
TEMPERAMENTAL ROCKETS

By Brian Lowey
University News Service

Last December a scientific payload including an instrument designed and fabricated by a University of Minnesota scientist was loaded onto a Scout rocket. The rocket was gassed up, the launch crew retreated to the blockhouse, the rocket ascended in a long, graceful arc and plopped into the Pacific Ocean. Both rocket and experiments were a total loss.

"I don't think I'll ever get over it," said the scientist, Konrad Mauersberger, who was planning to study the upper atmosphere.

The age of rockets like that one is almost over, however, and the era of the space shuttle is beginning. The big rockets of the 60's and 70's may soon become museum pieces to be gawked at by schoolchildren and dusted by curators.

"It opens up a new era in space travel," Mauersberger said. "We've never had anything even comparable."

The shuttle's biggest asset is that it is reusable. The old rockets either flopped in the ocean or burned in the earth's atmosphere.

"In future years the space shuttle will become our bread-and-butter transportation," Mauersberger said, while unveiling another gadget much like the one he lost to the Pacific Ocean. "When it is operating all the rockets will be gone. It will be the work horse of the space program."

The space shuttle looks a lot like a big transport plane. Unlike airplanes, though, it will be strapped to a long fuel tank (longer, in fact, than the shuttle itself) and two booster rockets which will blast it into orbit. Once sufficient altitude is obtained the fuel tank and boosters will drop off, and the shuttle's own rockets will take over.

(MORE)

At the end of each mission the spacecraft will glide down through the atmosphere and land on a runway, just like a conventional airplane. But since the shuttle will land without power it will need a special runway all its own which will be almost three miles long and 100 yards wide.

The heart of the shuttle is its cargo bay, which will transport satellites, experiments and scientists back and forth from space. The scientists will ride in the shuttle with the astronauts but will work in Spacelab, which resembles a giant thermos jug and is designed to fit neatly into the shuttle's cargo bay. Spacelab is being built in Europe as part of a unique international effort.

The missions run by the space shuttle will provide the earth with a flood of information regarding weather, mineral and water resources, and the pollution of our air and oceans. In addition, the shuttle will be used to boost interplanetary missions out of the earth's atmosphere, thus eliminating a costly step in space travel.

One region of the earth to which the shuttle will give increased scrutiny is the uppermost region of the atmosphere. Here is where space debris blows into the atmosphere and where the earth's great magnetic lines of force reach out into space.

"This region is part of the earth's environment in much the same way that clouds and thunderstorms are," said Laurence Cahill, University of Minnesota physicist and a member of one of NASA's shuttle experiment committees.

"This is where one input of energy enters our environment. Particles that blow out from the sun--the solar wind--are screened through it. Some of them get trapped in the earth's magnetic field and some of them filter down into the atmosphere."

The particles that filter down hit the electrically charged ionosphere and flash into brilliant colors, creating something we call the northern lights. Besides being photogenic, these magnetic storms disrupt radio communication and can affect our weather.

If things get interesting enough up there, scientists may consider using the space shuttle to ferry materials for the construction of an orbiting space station.

(MORE)

These scientists could keep an eye on our churning atmosphere and study the possible manufacturing applications of zero gravity.

"Why not?" Cahill says. "A space station is one thing that should be considered for the shuttle. Perhaps we can even make a go at prospecting on the moon for the materials that we're going to build it with."

Some very ambitious thinkers are even dreaming of placing huge solar collectors in orbit around the earth and beaming the energy down to receiving stations on the earth's surface.

"Up there we have pure radiation from the sun and no clouds to obscure it," Mauersberger said. "If we can develop the technology to beam this down to earth we would have an inexhaustible energy supply."

This is all a long way off. But the vehicle that will make it all possible-- the space shuttle-- will begin flight tests later this year. With some luck it will be in orbit sometime in 1980.

-UNS-

(AO,4;B1;CO,4;DO,4;E4,21;G31)

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CHILD NIGHT-CARE BILL
ADVANCES TO COMMITTEE

(FOR IMMEDIATE RELEASE)

A bill that would establish evening child-care centers at the University of Minnesota and up to four other educational institutions in the state was passed with high priority from the Social Service subcommittee to the full Health and Welfare Committee of the Minnesota House of Representatives Tuesday.

The bill would provide \$80,000, from the Commissioner of Public Welfare, to state colleges and universities for establishment and licensing of night-care programs for children whose parents attend evening classes. Another \$20,000 would go to the United Evening Educational Enhancement Program (UEEEP) already in existence at the University of Minnesota.

According to Judy Klammer, chairperson of the UEEEEP advisory board, the program needs money to pay expenses already incurred. "A delay in licensing and lack of sufficient publicity led to a low enrollment for winter quarter," Klammer said. It is expected that users' fees will cover the operating expenses of all the programs once they are established.

Each of the programs will accommodate up to 20 children from 6 to 12 years of age and will operate all year. The University center is open from 5:15 to 10:15 p.m. Monday through Thursday.

Director Marlys Svobodny described the activities available to children at the center including arts and crafts, physical education, drama and tutoring for those who have homework. "The volunteers are people who are studying in fields related to child-care and all volunteers have to have a class in health and safety," she said.

Rep. Mary Forsythe, IR-Edina, sponsor of the bill, defended the age requirement for children served by the programs. "The facilities and type of care needed for younger children are completely different," she said. "If you get into child-care for the little ones, you have to have an entirely different program."

The bill was passed after a request from the subcommittee that the Department of Public Welfare provide cost estimates before the meeting of the full committee for including younger children in the program.

A hearing will be scheduled before the Health and Welfare Committee within the next two weeks.

-UNS-

(AO,16;B1;CO,16;E15)

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MARCH 3, 1977

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JONES TO RETIRE AS JOURNALISM DIRECTOR

(FOR IMMEDIATE RELEASE)

Robert L. Jones has announced plans to retire as director of the University of Minnesota School of Journalism and Mass Communication in June, 1978. He will return to teaching after 20 years as director.

Jones, who earned a doctor of philosophy degree in psychology from Minnesota in 1951, is widely known as a specialist in public opinion and communications research.

He was one of the directors of a pioneer study of the flow of world news for the International Press Institute and was chief of the intelligence research branch of the Air Force's Human Resources Research Institute (1951-52). He has served as a member and chairman of the Minnesota Board of Examiners in Psychology.

Jones has been president of the American Association of Schools and Departments of Journalism (1962-64) and the Association for Education in Journalism (1967-68). He has also been a member of the American Council on Education for Journalism, the accreditation body for journalism education.

He was director of the research division of the Minnesota school before becoming its director and also was chairman of the steering committee of the William Randolph Hearst Journalism Awards Foundation.

Jones succeeded Ralph C. Casey, the first director of the school, who retired from the faculty in 1958.

-UNS-

(AO,1,14,15,20;B1;CO,14,15;DO,14,15;E20)

(FOR IMMEDIATE RELEASE)

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Telephone: (612) 373-5193
March 3, 1977

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'U' PROFESSOR KNOWS
ANCIENT, MODERN CHINA

By Bill Huntzicker
University News Service

Richard B. Mather has spent 20 years of his life getting to know a group of people who lived more than 1,500 years ago.

Mather, professor of Chinese language and literature at the University of Minnesota has translated into English a book which contains the gossip and philosophy of the Chinese aristocracy between 150 and 420 A.D.

"After 20 years of living with these people I find that they are warm, human people that I'd like to have other people know," he said. "Their search for security in a time of turmoil was like our own in some respects."

Mather, who was born in China and lived with his missionary parents there until he was 13 years old, lived through a period which was traumatic for the Chinese people as was the Six Dynasties period which he has studied.

He left China as a child to return for a year in 1936 and, last year, he returned for a brief visit after 40 years away from the mainland.

Despite the tremendous changes away from the traditional values, there remain a number of similarities between the China of today and the one he knew as a child.

"The nuclear family is still the central unit of Chinese society," Mather said. "Early in the new regime children might occasionally have denounced their parents, and, in some communes, common mess halls and dormitories seemed to threaten the identity of family units.

"But it was clear at least in the places we visited that families are still together, often with three generations under one roof. The obligation to aging parents is still assumed," Mather said.

(MORE)

He said that some inspiration is still taken from the Chinese past, as in the repudiation of Confucius and the discussion of the various schools of philosophy. "But the value-system of the old ruling class has been totally repudiated," he said.

"Filial submission, family loyalty, reverence for an educated elite, worship of the past, passive adaptation to nature and circumstances have been replaced by self-reliance, equality, service to the people, and a confident determination to conquer nature, and every man-made obstacle that stands in the way of China's reconstruction," he said.

Mather said the visual arts have suffered an irreversible break with tradition and, although some of the old story-telling techniques remain, they are barely recognizable.

"The writers, too, are no longer professional story-tellers or members of the literati class, but soldiers, peasants, factory workers and students," he said. "Many stories and plays are the distillations of group discussions and carry no individual author's name."

The tales with which Mather has spent most of his time represent the old values which would be more acceptable to Taiwan today than to the People's Republic on the mainland. Traditionally, the Chinese have loved this book, he said.

The book, "Shih-shuo Hsin-yu: A New Account of Tales of the World," contains the gossip and the guides to behavior of the aristocracy during the Six Dynasties period in the first five centuries after Christ.

"The world of these tales," Mather wrote in his introduction to the book, "is a very narrow world indeed: of emperors and princes, courtiers, officials, generals, genteel hermits and urbane monks.

"But though they live in a rarefied atmosphere of great refinement and sensitivity, they are, nevertheless, for the most part involved in a very earthy, and often bloody, world of war and factional intrigue."

Even though much of the book contains snubs, insults, extravagance, stingy and frivolous behavior, it shows a pretty good picture of the time, Mather said. It is

sometimes social satire and sometimes a guide to moral behavior, having been written by many different people over a period of many years.

Mather began to study the "Tales of the World" in 1957 with a group of colleagues in Japan. They translated it into Japanese and Mather's English translation was published recently by the University of Minnesota Press.

Many of the anecdotes reflect all the vices of an elite group struggling for its existence, some showing their boredom. Others are intended to provide guides for behavior by demonstrating the virtues of the elites. Here is one such tale:

"Chou Sung had been drinking and was drunk. With angry eyes he turned his face toward his elder brother, Chou I, and said, 'Your ability isn't as good as mine, and yet, by some perversity, you've got a weightier reputation.' A moment later he picked up a lighted candle and hurled it at Chou I.

"Chou I, laughing, replied, 'Little brother, your 'attack by fire' certainly proceeds from an inferior strategy, that's all I can say.'"

Mather said many of the traditional values have been changed under the communist government. "The traditional values of group loyalty and social responsibility, translated now in terms of 'serving the people,' have been pressed even further than they were in the past, to the almost total exclusion of individual freedom and self-development," he said.

Mather's book contains a glossary, with short biographies of 600 people who are mentioned in the tales. The book is for the scholar of Chinese history and literature.

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SHIH-SHUO HSIN-YU: A NEW ACCOUT OF TALES OF THE WORLD (Minneapolis: University of Minnesota Press) 726 pp., \$35.

-UNS-

(AO,13;B1,CO,13;DO,13;E2,13)

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PRIMARY ELECTION SET FOR
'U' STUDENT BODY PRESIDENT

(FOR IMMEDIATE RELEASE)

Eleven candidates will be on the ballot next week in the primary election for University of Minnesota student body president, Twin Cities campus.

The election is set for Wednesday, March 9. The two top vote getters will face each other in a general election for student government officers on April 21 and 22.

The student body president is also president of the All-Campus Council, the campus wide student government.

This year's candidates are Dick Wilke, Pegg Perrone, Richard Cooke, Chuck Hokonen, Bill Paul, Ray Roybal, Terry Marchiniak and Jim Clark, all juniors; Allen Senstad and Peter Miller, both sophomores, and Timara Kulzer, a graduate student.

-UNS-

(AO, 7; B1; CO; G3)

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
March 6-12

- Sun., March 6---St. Paul Student Center Galleries: Japanese Sumie Paintings by Mitsuko Evans, North Star Gallery: "Our American Heritage" photographs by Del Cass, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through April 1. Free.
- Sun., March 6---Coffman Gallery: Clay and Paintings by Tim Perkins. Gallery II, Coffman Union. Opening: 2-4 p.m., regular hours: 10 a.m.-4 p.m. Mon.-Fri. Through March 17. Free.
- Sun., March 6---Jaques Gallery: Watercolors and Scratchboards by Dana Gardner. Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through April 10. Free.
- Sun., March 6---University Gallery: "People, Places and Things," through March 11; "Classical Narratives in Master Drawings," through March 15; Paintings and Drawings by Lorna Ritz, through March 17. Northrop Aud. 11 a.m.-4 p.m. Mon., Wed. & Fri., 11 a.m.-8 p.m. Tues. & Thurs., 2-5 p.m. Sun. Free.
- Sun., March 6---Natural History Films: "In Search of a Mate" and "Mussel Specialist." Museum of Natural History aud. 2:30 p.m. Free.
- Sun., March 6---Concert: University Wind Ensemble. Northrop Aud. 3 p.m. Free.
- Sun., March 6---University Theatre: "The Prime of Miss Jean Brodie" by Jay Presson Allen, directed by Kathleen Ellison. Whiting theater, Rarig Center. 3 p.m. \$3.50 public, \$2.50 students and senior citizens. Tickets on sale at Rarig Center and Dayton's.
- Sun., March 6---The Whole Coffeehouse: Ben Sidran. Coffman Union. Doors open 8:30 p.m. \$3. Tickets on sale at MSA, TOO and Positively 4th Street.
- Mon., March 7---Coffman Gallery: "Light Works" by Mark Larson. Gallery I, Coffman Union. 10 a.m.-4 p.m. Mon.-Fri. Through March 17. Free.
- Mon., March 7---Two-Bit Flick: "Flash Gordon" and "Roadrunner." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Tues., March 8---Play: "Raped" by Bertolt Brecht. Theater-lecture hall, Coffman Union. 7:30 p.m. Discussion/workshop follows play. \$2.50.
- Wed., March 9---Discussion: "Opera and Literature" by Robert Moore and Charles Nolte. 305 Lind Hall. 3:15 p.m. Free.
- Wed., March 9---Lecture: "Notes Toward a Cultural Account of Economic Objects" by Marshall D. Sahlins. Murphy Hall aud. 4 p.m. Free.

(OVER)

- Wed., March 9---Jazz Concert: "Workshop," Pat Moriarty, Jim Price and Dave Peterson. North Star Ballroom, St. Paul Student Center. 7 p.m. \$2 students, \$2.50 public.
- Wed., March 9---U Film Society: "What?" Museum of Natural History aud. 7:30 and 9:30 p.m. \$1.50.
- Wed., March 9---Concert: University Men's Chorus and Brass Choir. Scott Hall aud. 8 p.m. Free.
- Thurs., March 10---Concert: University Symphony Orchestra. Northrop Aud. 8 p.m. Free.
- Fri., March 11---Natural History Films: "Should Oceans Meet" and "Life in a Tropical Forest." Museum of Natural History aud. 12:15 p.m. Free.
- Fri., March 11---U Film Society: "Stay Hungry," 7:30 p.m., and "92 In The Shade," 9:30 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
- Fri., March 11---The Whole Coffeehouse: Tom Paxton and Tom Lieberman. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, T00 and Positively 4th Street.
- Sat., March 12---U Film Society: "Stay Hungry," 7:30 p.m., and "92 In The Shade," 9:30 p.m. Museum of Natural History aud. \$1.50 per film, \$2 both.
- Sat., March 12---Dance: San Francisco Ballet. Northrop Aud. 8 p.m. \$7.50, \$6.50, \$5.50, \$4.50, \$3.50.
- Sat., March 12---Recital: Kathy Rodell, piano. Scott Hall aud. 8 p.m. Free.
- Sat., March 12---The Whole Coffeehouse: Tom Paxton and Tom Lieberman. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, T00 and Positively 4th Street.

-UNS-

(A0;B1;F2)

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MARCH 7, 1977

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'U' SEEKING COMMUNITY INPUT
ON PROPOSED HEATING PLANT CHANGE

(FOR IMMEDIATE RELEASE)

The University of Minnesota is seeking neighborhood responses to a proposal to enlarge its heating plant, which, officials say, would improve heating efficiency for the community and generate additional electricity.

The University is one of five finalists in a federal Energy Research and Development Administration (ERDA) program for the study of a Grid-Connected Integrated Community Energy System (ICES).

The University is studying the feasibility of such a system under a \$49,223 ERDA grant, and community responses to the plan must be submitted this spring along with the feasibility study, according to Warren E. Soderberg, director of the University physical plant.

If the University is successful, ERDA would help fund expansion of the University's heating facility to incorporate an ICES demonstration system, Soderberg said.

The larger ERDA grant would allow the University to expand the use of the Southeast steam plant that it plans to acquire from the Northern States Power (NSP) Company to complement its heating plant in Minneapolis, he said.

The proposed ICES would generate enough heat to replace the current heating plants for St. Mary's and Fairview Hospitals and possibly Augsburg College and still put electricity back into NSP's power system (grid), Soderberg said.

In addition, he said, the system would replace the incinerators on the University's Twin Cities campus and at the hospitals by burning currently incinerated waste through a pyrolysis process.

(MORE)

The pyrolysis process involves heating the waste, mostly paper, to 3,000 degrees F. and using the gas produced for additional energy in the heating plant, said James C. O'Gara, principal engineer for the physical plant.

O'Gara said the hot gas would be used to generate steam, and the waste produced would have a sand-like texture and could be hauled away in trucks. The volume would be only about 7 per cent of the present incinerator waste, Soderberg said.

The major fuel for the power plant would be coal. The efficiency would be greater than having the separate heating plants for each of the institutions convert to coal, O'Gara said.

"The grant would allow the University to expand the plant to encompass some of the large community users now limited to gas and oil," Soderberg said. "It would remove 1.5 million gallons of critical oil from use at the St. Mary's Hospital plant alone."

The plant would also generate by-product electricity, which means that normally unused energy would be used to generate electricity to be fed into the NSP system, Soderberg said.

"The plant would aid in the disposal of critical solid wastes and involve some energy recovery from the wastes," he said. Hot water that would normally be thermal pollution will be recycled through the system.

The proposed plant would also involve a review of the present University steam-distribution system, with replacement of steam with hot water wherever possible for more efficiency, he said.

The hot-water system would allow the University to store heat that could be generated overnight for use during peak hours, reducing the total capacity required by the system, O'Gara said.

Soderberg said the grant would also allow the University to improve coal unloading and handling both economically and environmentally by moving from trucking to an automated conveyor system.

(MORE)

"This is really a state-of-the-art demonstration to see if the community can generate by-product electricity and feed it into a utility company's grid and be cost effective," Soderberg said. "We know it is energy effective."

O'Gara said the proposed plant is a step in the evolution of more efficient use of energy. "What the grid-connected system would do is utilize more of the plant's capacity over a period of a year," he said.

Soderberg said pollution by the University would not change once the "bag houses" are installed to reduce the pollution from the stacks on the Minneapolis heating plant.

"Once these bag houses are installed," he said, "the University will be well within present air-quality standards."

He listed possible impacts of the system on the neighborhood as more efficient use of energy, conversion to coal in one plant instead of several, more coal storage through the use of the Southeast steam plant facility and less hauling of coal.

People who wish to raise questions about the system may call Soderberg at 373-4521 or O'Gara at 376-3455. Both men said negative or positive feedback would be welcome.

-UNS-

(A0,1,18;B1,2;C0,1;D0,1;E18)

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MARCH 7, 1977

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INTERNATIONAL AWARENESS
PROGRAM AT U OF M

(FOR IMMEDIATE RELEASE)

Foreign student organizations on the Twin Cities campus of the University of Minnesota will take part in an International Awareness Program Thursday (March 10) in the Great Hall of Coffman Union.

A series of panel discussions dealing with international disputes will be held from noon to 4 p.m. The discussion at noon will deal with the Arab-Israeli issue. Northern Ireland will be the subject of a panel debate at 1:30 p.m., followed by a discussion of Pakistan at 3 p.m.

Activities will begin at 11 a.m. with Irish music. Throughout the day there will be films and slides at displays sponsored by the various foreign student associations on campus.

-UNS-

(AO,7;B1)

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NEWS PEOPLE: For further information
contact BILL HUNTZICKER, 373-7512

MEMO TO NEWS PEOPLE

The University of Minnesota Board of Regents will decide this week whether to delegate voting authority on shares of stock the University owns in corporations whose behavior may be in violation of their social responsibilities.

The University Committee on Social Responsibility in Investments will ask the regents to delegate the voting authority to the University administration. The issue will be discussed at the monthly meeting of the regents' physical plant and investments committee at 1:15 p.m. Thursday (March 10) in 300 Morrill Hall.

The committee contends that timing could be better if the regents would delegate the voting authority to the administration instead of requiring final action by the board.

Last year, the committee recommended that the University abstain from voting, subject to regents' approval, on resolutions on political activity and equal employment in corporations in which the University owns stock. Issues that the committee plans to raise in shareholders' meetings this year are corporate dealings in South Africa, the Arab boycott and corporate sponsorship of television violence.

The other regents' committees will also hold meetings Thursday afternoon in Morrill Hall. The faculty and staff affairs committee will meet at 1:15 in the regents' room, 238 Morrill Hall.

The educational policy and long-range planning committee will begin its review of campus boundaries, starting with the Duluth campus, at 3 p.m. in 300 Morrill Hall.

The money put in escrow for the defeated FM radio proposal will be reassigned at the student concerns committee meeting at 3 p.m. in the regents' room.

Personnel actions and the Summer Session budget will go before the committee of the whole at 8:30 a.m. Friday (March 11), and the regular monthly meeting of the full board will follow at 9:45 a.m. in the regents' room.

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
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MARCH 9, 1977

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NEWS PEOPLE: For further information
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FOLKLORE SUBJECT OF
U OF M COURSE AT MACPHAIL

(FOR IMMEDIATE RELEASE)

Minnesota state folklorist and University of Minnesota professor Ellen Stekert will conduct a course on folklore, its different forms and the history of folklore scholarship, spring quarter at the MacPhail Center, 1128 LaSalle Ave., downtown Minneapolis.

The four-credit class, offered through the University's Continuing Education for Women, will meet from 9:30 a.m. to noon on Wednesdays beginning March 30.

Folklore is anything people pass on through tradition without returning to fixed sources for correction, Stekert says. Included are such things as dance and song, beliefs, proverbs, riddles, games, graffiti and gravestone lore. Folklore, according to Stekert, is part of everybody's life.

Stekert did her undergraduate work at Cornell and received her master's degree from Indiana University and her doctorate from the University of Pennsylvania. She taught at Wayne State University for 10 years and was a visiting professor at the University of California, Berkeley, until coming to the University of Minnesota in 1973. She was named Minnesota state folklorist in 1976.

Registration for the class may be made in person at 200 Wesbrook Hall on the Minneapolis campus or by mail to Continuing Education for Women, 200 Wesbrook Hall, 77 Pleasant St. SE., University of Minnesota, Minneapolis, Minn. 55455. The fee for the course is \$68. March 23 is the last day for tuition payment without a late fee.

Qualified students may register for graduate credit, and persons 62 years of age or older may take the course free of charge on a space-available basis after all tuition-paying students have been accommodated. For more information, call Continuing Education for Women, 373-9743.

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(AO,27;B1)

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contact JUDY VICK, 373-7515

'TROPICAL BIRDS' ON EXHIBIT AT 'U'

(FOR IMMEDIATE RELEASE)

Twenty scratchboards and 20 watercolors of "Tropical Birds" by Dana Gardner are on exhibit in the Jaques Gallery of the Bell Museum of Natural History at the University of Minnesota now through April 9.

Gardner grew up in southeastern Minnesota and graduated from the University of Minnesota in 1972. He has lived and worked in the Panama Canal Zone, Colombia, the Amazon jungles and the Andes. He now lives in Costa Rica, where he is working on illustrations for a handbook identifying Costa Rican birds.

Gardner has completed illustrations for "An Introduction to the Birds of Colombia" by Humberto Alvarez, to be published later this year. The 20 scratchboards in the exhibition were drawn for Alexander Skutch's book "A Bird Watcher in Tropical America," to be published soon by the University of Texas Press.

The Jaques Gallery, at 10 Church St. SE., Minneapolis, is open from 9 a.m. to 5 p.m. Monday through Saturday, to 9 p.m. Wednesday and from 2 to 5 p.m. Sunday. There is no admission charge.

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(AO, 2, 31; B1; CO, 2)

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MARCH 9, 1977

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NEWS PEOPLE: For further information
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U OF M TV COURSES
OFFERED SPRING QUARTER

(FOR IMMEDIATE RELEASE)

Registration is now open for two television courses, "Principles of Advertising" and "Geography of the Twin Cities," to be offered by the University of Minnesota spring quarter. Both courses will be televised on Monday evenings, March 28-May 30, on KTCA-TV.

"Geography of the Twin Cities," to be shown from 9 to 9:30 p.m., includes televised visits, with commentary, to different neighborhoods of the Twin Cities and features an optional Saturday morning bus tour for registered students. The concept of historically distinctive neighborhoods and the implications of urban sprawl, transportation gaps, energy supplies and future planning, will be discussed. Myths, legends and stories of Twin Cities culture will also be explored. The course will be taught by Fred Lukermann, professor of geography at the University.

"Principles of Advertising," to be shown from 9:30 to 10 p.m., will focus on advertising communication--what types of ads are effective and why. Topics will include identifying markets, deciding on proper media, producing ads and the history of advertising. The course will be taught and illustrated by Willard Thompson, professor of journalism and mass communication at the University.

Each course carries four undergraduate credits and costs \$62, not including texts and study guides. There are no prerequisites, and all course work can be completed by mail.

For further information, to register, or to order a study guide without registering, call (612) 376-4925 or write Extension Independent Study, 27 Wesbrook Hall, 77 Pleasant St. SE., University of Minnesota, Minneapolis, Minn. 55455.

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(AO,20;B1)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 10, 1977

JUST BECAUSE YOU'RE PARANOID...

By Bill Hafling
University News Service

The man was in trouble. Not only had he scored high on Scale 6--the scale for "paranoia"--of the Minnesota Multiphasic Personality Inventory (MMPI), but he'd been telling everyone that "certain people are out to get me" and to top it all off, "the FBI is bugging my phone." Time to put him away for some "professional help."

Certain elements in the man's story, however, led psychologist Charles Newmark to send a social worker to check out the situation. Making the point that clinical evidence such as psychological tests and psychiatric interviews give only clues and not the whole picture about a person, Newmark, of the University of North Carolina Medical School, told participants at the 12th annual MMPI Workshop and Symposium held recently in Florida that the man had been suspected of drug dealing and that his phone had indeed been bugged by the FBI.

"Just because you're paranoid doesn't mean they're not out to get you" is one of the slogans of the national mental patients' rights group--an organization with many psychiatric experiences less fortunate than those of the "paranoid" man recalled by Newmark.

Everyone uses the words "paranoid" and "paranoia" quite casually in conversation, usually for put-downs of others. The experts, on the other hand, are becoming quite cautious about the use of such terms, as well as others found in psychology and psychiatry, such as "hysteria," "psychasthenia," "mania," "psychopathic" and the ever-popular catch-all "schizophrenia."

At the same conference, sponsored by the University of Minnesota and the University of South Florida, Theodore H. Blau, president of the American Psychological Association, told participants that although he had been using the MMPI since 1947

(MORE)

in his work, he was also concerned about the instrument's overemphasis on pathology. Despite its flaws, however, Blau said that he and other clinicians make heavy use of the MMPI because "it is one of the best-researched instruments in psychology."

Sophisticated clinicians such as Blau, who is in private practice in Tampa, Fla., use the MMPI primarily as a screening instrument to aid communication with the patient and as a source of clues for discovering and working on the patient's real-life problems.

On the other hand, Blau said he had been "going around and around" with the American Psychiatric Association on the revision of that organization's "Diagnostic and Statistical Manual of Mental Disorders." The "DSM," as it is known in the trade, is the "bible" that attempts to define all the various "mental disorders" known to psychiatry. It is developed by a committee, however, and not through scientific research.

Blau said "DSM-III" was scheduled for release last November but "aborted due to so much argument." He described the "DSM" as "ludicrous--psychologists are appalled by it." He said that many psychiatrists, as well, were becoming "embarrassed by the continued use of such science fiction."

University of Minnesota psychology professor James N. Butcher, well known for his research on the MMPI, offered a typically cautious definition of paranoia as measured by this instrument. In a recent book coauthored with Italian psychiatrist Paolo Pancheri ("Handbook of Cross National MMPI Research," University of Minnesota Press, 1976), Butcher said high scorers on the "paranoia" scale may be "suspicious, aloof, shrewd, guarded, worrisome, and overly sensitive." He said high scorers "may project or externalize blame."

Butcher said that clinicians usually find clear differences in behavior between those who score high purely on the 6 (paranoia) Scale and those who score high on other scales as well. In addition to scoring high on "paranoia," some people might score high on the 8 Scale of the MMPI, a scale originally designed to distinguish "schizophrenics" from others. To MMPI experts, such people are known as "high 8-6's" and "6-8's."

(MORE)

Studies of people with high 8-6 scores have found them to be generally depressed, suspicious, easily agitated, tense, hostile, and having feelings of inferiority. Few are married, and when they are they often have a "deviant spouse," usually alcoholic.

Another speaker, psychologist Alex B. Caldwell of the University of California, Los Angeles, explored the question of "how people get this way" by looking at the reasons in their life history they would have for reacting to MMPI questions as they do, thus generating differing MMPI profiles as well as distinct ways of reacting to life's stresses.

Caldwell said about half of the questions on the MMPI that would lead to a person getting a high score on "paranoia" deal with "persecutory thoughts" about being followed and being plotted against.

A fourth of such questions deal with "sensitivity to criticism" and might be answered positively by people who cry easily, feel lonely, or have the "inability to let go of that certain 'pain'." Another fourth of the questions that would lead to a high Scale 6 score reflect what Caldwell called naivete, moral self-righteousness, and the view that there is a right way and a wrong way, and no other way.

Caldwell said that people who ended up labeled as having a "disturbed paranoid identity" most often showed such reactions only toward one particular person, such as a spouse, and not toward most people. He said such reactions came from an instinct for self-preservation and usually resulted from real-life experiences in the past.

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(AO,6,19,24;B1,4;CO,6;DO,6;E6,24)

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AUSTRIAN CHANCELLOR TO VISIT 'U'

(FOR IMMEDIATE RELEASE)

Austrian Chancellor Bruno Kreisky will visit the University of Minnesota Wednesday (March 16).

At 10 a.m. in the East Wing of the Campus Club, Coffman Union fourth floor, the Chancellor will formally present a \$1 million donation to the University on behalf of the people of Austria for the establishment of a Center of Austrian Studies. The donation will be accepted by University President C. Peter Magrath and Neil Sherburne, chairman of the University Board of Regents. They will present a special citation to the Chancellor. A news conference will follow.

Funds for the donation were raised throughout Austria through the sale of "American Stars" in honor of the American Bicentennial. Matching funds were provided by the Austrian government.

Fifteen American colleges and universities competed for the gift. A gift will also be presented to Stanford University in California.

The Chancellor is scheduled to arrive at Twin Cities International Airport at about 6 p.m. Tuesday. He will be the guest at a private dinner at the home of University President C. Peter Magrath that evening.

Following the presentation and news conference Wednesday morning, he will be the guest at a private luncheon at the Minnesota Alumni Club in downtown Minneapolis.

Scheduled departure from Twin Cities International Airport is at 4 p.m. Wednesday.

Traveling with the Chancellor will be Stephan Koren, leader of the parliamentary faction of the strongest opposition party, the Austrian People's Party; Manfred Mautner Markhof, president of the Austro-American Society; Niklaus Scherk, secretary

(MORE)

AUSTRIAN

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to the Chancellor; Wilhelm Schlag, representative of the Ministry for Science and Research; Austrian Ambassador to the United States Karl Herbert Schober; Fritz Cocron, director of the Austrian Cultural Institute, New York, N.Y., and representatives of the Austrian news corps.

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NOTE TO EDITORS:

Security clearance is necessary for any news people covering this event. Names, social security numbers and birth dates of news people wishing to cover the event or be present at the news conference must be submitted to the University News Service no later than Monday (March 14).

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MARCH 11, 1977

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REGENTS NAME NEW
'U' DENTISTRY DEAN

(FOR IMMEDIATE RELEASE)

Richard C. Oliver, 46, dean of the School of Dentistry at the University of Southern California (USC), will become dean of the School of Dentistry at the University of Minnesota effective July 1.

The University of Minnesota Board of Regents Friday approved the appointment of Oliver to succeed Erwin M. Schaffer, who will return to teaching after 13 years as dean of the school.

University President C. Peter Magrath characterized Oliver, a Hastings, Minn., native, as an "outstanding candidate" for the position.

"Dean Oliver is attracted to the potential for further improvement at the University of Minnesota, and I believe that he has a special interest in returning to our state even if our winters are a little cool in comparison to southern California," Magrath said.

"He is a well-rounded individual and an able administrator, and I think he will give real leadership as well as management competence to the school," said Lyle French, vice president for the health sciences.

Oliver attended Carleton College and has degrees from the University of Minnesota, the University of Southern California and Loma Linda University. He has taught at Loma Linda University and USC and at the Royal Dental College in Aarhus, Denmark, under a Fulbright research professorship.

Oliver's wife, Jacqueline, is also a Minnesota native. The Olivers have four children.

Magrath said Schaffer, whose retirement as dean had been announced previously, contributed to the building of "an excellent faculty, superb facilities and a clear and understandable mission, which has placed the school in the top of the class among American dental schools."

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REGENTS VOTE TO WITHHOLD
PROXIES ON THREE ISSUES

(FOR IMMEDIATE RELEASE)

The University of Minnesota will become involved in three issues that could come before shareholders of companies in which the University owns stock.

The Board of Regents Friday approved the three issues. The University, as a result, will withhold proxies on shareholder resolutions regarding investment in South Africa, participation in the Arab boycott and sponsorship of violent television programs.

The regents voted to allow University Vice President Donald Brown to withhold the University's proxy after consultation with Regents Neil Sherburne, Wenda Moore and Lauris Krenik.

At a regents' committee meeting Thursday, Marion Freeman, co-chairman of a faculty-student committee on social responsibility in investments, said the University holds stock in eight companies that have upcoming shareholders' votes on the South Africa investments issue.

She said that the University will abstain on the resolutions, which range from ordering the companies to discontinue all activity in South Africa until racial equality is achieved to disclosure of company activity in the nation.

"I think that most of the corporations try to be responsive to the needs of the racial minorities in South Africa, but the laws do not allow blacks to supervise whites," she said.

Freeman said that some companies such as Ford, Citicorp and Union Carbide have worked to improve working conditions for minorities but that as long as laws prohibit their holding certain jobs and living in certain places, little can be done. U.S. corporations have \$1.5 billion in investments in South Africa, she said, and "public pressure to modify apartheid is very important."

(MORE)

Freeman said that the Arab boycott resolutions involve corporate activities in the 20 nations that have said they will not do business with companies that trade with Israel.

On the television violence issue, she said that a number of companies have modified their policies about advertising during violent prime-time television shows as the result of pressure from groups like her committee. The resolutions in all but one company--Pillsbury--have been withdrawn after discussions between opponents of the advertising and corporate leaders, she said.

Ms. Freeman said her ~~comm~~ committee hopes to meet with executives of Pillsbury, a Minneapolis-based firm, to discuss the issue with them.

In discussing the motion on withholding University proxies, Michael Unger, the student member of the Board of Regents, suggested that the policy be broadened to include other kinds of University activities that involve business transactions.

Unger noted a Minnesota Daily story Friday indicating that the Northwestern National Bank, with whom the University does business, is selling expensive South African coins.

Regent Robert Latz of Golden Valley suggested that the University also look at business dealings the University has with banks that practice "redlining" discrimination in housing and redevelopment loans in certain inner-city areas.

"I'm not necessarily advocating any course of action but asking questions about whether this should be considered," Unger said.

Board chairman Neil C. Sherburne said that the committee on social responsibility in investments was begun with the understanding that it would start with stockholders' issues and later move on to other ethical questions.

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(FOR IMMEDIATE RELEASE)

Feature story from the
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March 14, 1977

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'U' PROF DIRECTS INTERN
PROGRAM IN HUMAN RIGHTS

By Bill Huntzicker
University News Service

Killings in Uganda are in the news. Thousands of political prisoners are being held in Indonesia and the Soviet Union.

There are reports that government officials torture political prisoners in Chile, Argentina, Brazil, Spain and the Philippines. A State Department report released this month indicates that most of the countries that receive American aid violate human rights.

Sex and race discrimination and suppression of speech exist in nearly every country of the world.

Professor David Weissbrodt of the University of Minnesota Law School is one of the people working for international enforcement of human rights covenants.

"Unfortunately," Weissbrodt said recently, "far too many people are unwilling even to ask what can be done. They have been nurtured on the idea that international law is useless, that efforts to change the actions of governments are doomed to failure and that there is no point in trying.

"This view leaves lawless governments with the freedom they desire to remain lawless and to scoff at the efforts of international bodies that barely continue to exist with the minimal resources and manpower they receive," he said.

Weissbrodt, who is teaching a Law School seminar on international human rights, says that governments are sensitive to criticisms that they are violating the rights of their citizens.

"Most countries are proud of the humanitarian ideals that form one basis for the legitimacy of the nation state," he said.

Thus, when international human rights groups such as Amnesty International (AI), the International League for Human Rights and the International Commission of Jurists

(MORE)

talk, the leaders of most nations pay attention.

"The pointed finger of shame, particularly when directed by an organization with some appearance of impartiality and political independence, has caused executions to be stayed, death sentences to be commuted, torture to be stopped, prison conditions to be ameliorated, prisoners to be released and more attention to be paid to the fundamental rights of many citizens," Weissbrodt said.

None of the organizations working to support human rights is very large, considering the amount of work that needs to be done, he said.

"With rare exceptions, the central offices are staffed by only a handful of people," he said. "Almost all of the organizations rely heavily on voluntary work by members and subsist on meager budgets."

The size of these groups makes the work of Weissbrodt and Ann Blyberg, his administrative assistant, even more important. They are working on an intern program funded by the Ford Foundation to place students with these organizations to get experience in human rights activities.

"The program aids the relatively few and financially poor organizations that are actively engaged in implementing the declarations of human rights," Weissbrodt said. "One intern adds a considerable amount of staffing to a small group."

The students are given subsistence grants to get practical training at the headquarters of the organizations. There are about 15 interns currently serving under the program, but only one of them is from Minnesota because University students haven't had enough training yet, Weissbrodt said.

Although not all of the participants are law students, they have had some academic training in the field. The program will provide them with practical experience whether they plan to work in human rights areas or to become attorneys whose clients may have problems in other countries, Weissbrodt said. "It also creates a knowledgeable, professional constituency in human rights."

The methods employed by the nongovernmental organizations primarily involve using publicity to make the world aware that there are violations of the Universal Declaration of Human Rights or the U.N. covenants on human rights in a particular country, Weissbrodt said.

(MORE)

International pressures such as discussion in the United Nations and economic boycotts such as those against South Africa and Rhodesia can also be used, he said.

Internally, Americans can put pressure on their government to stop foreign assistance to nations that violate the human rights covenants, Weissbrodt said. The U.S. Foreign Assistance Act and some international financial institutions provide for denial of aid to governments that violate the rights of their citizens, he said.

Weissbrodt and Blyberg said the most difficult problem is just getting information about what is going on in many countries that violate the rights of their citizens. Fact-finding is a big part of the human rights effort, they said.

Blyberg said that many of the organizations issue two reports at roughly the same time, one on a right-wing country and the other on a left-wing country, to avoid charges of political bias.

"The main problem I've run up against is that one side of the political fence sees those people on the other side as the problem," she said.

Amnesty International, the largest and newest of the groups, has focused its efforts on what it calls "prisoners of conscience," people who are persecuted for their religious beliefs, political associations or race.

One of AI's goals is to abolish torture, which, AI studies indicate, is on the increase. AI believes the practice would be eliminated if the same pressures were brought to bear that were used to abolish slavery a century ago.

"Amnesty International's campaign against the use of torture, begun in 1972, has heightened the sensitivity of nearly all governments to allegations of torture and has made torture one of the most frequently discussed issues with respect to the protection of human rights," Weissbrodt said.

These nongovernmental organizations working for international human rights provide one way for individuals to become involved in the protection of human rights, he said.

"These organizations," Weissbrodt said, "achieve so very much with their present minimal resources that it is possible to foresee that they could do far more if there were adequate support."

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'U' SOCIAL WORK
ALUMNI TO MEET

(FOR IMMEDIATE RELEASE)

Alumni of the School of Social Work at the University of Minnesota will hold their annual meeting and banquet Tuesday, March 22, in the Minnesota Alumni Club atop the IDS Tower in Minneapolis. A social hour will begin at 6 p.m., with dinner at 7.

Gisela Konopka, director of the Center for Youth Development and Research and professor of social work at the University, will be the keynote speaker.

The cost is \$10 for members of the Alumni Association and \$11 for nonmembers. For further information, call 373-2466.

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(FOR IMMEDIATE RELEASE)

Feature story from the
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Telephone: (612) 373-5193
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HUMANIST HELPS SCIENTISTS
TALK TO EACH OTHER

By Maureen Smith
University News Service

Robert Sonkowsky never set out to be the world's expert on the terminology of chronobiology, the study of body rhythms and body time. It just happened that way.

About a dozen years ago Franz Halberg, a University of Minnesota professor who has become a towering world figure in the young field of chronobiology, began to ask Sonkowsky's advice on the coining of words.

As a new field, Sonkowsky said, chronobiology needed a language. "It needed to achieve a standardization of terminology so that the community of scientists could communicate."

It is still true that words derived from Greek and Latin roots are the words that ring bells among scientists throughout the world, said Sonkowsky, chairman of the classics department at the University. And so the classicist and the pioneering scientist formed a word-coining partnership.

Before long, Sonkowsky had become the chronobiologists' "pet humanist." He was made a member of the international committee on nomenclature and was invited to speak at conferences in Florence and Ravenna, Italy. When a professional journal of chronobiology was founded in 1974, Sonkowsky was asked to contribute the first article.

"Much to my surprise, I turned out to be the world's expert on terminology for this field," he said.

Sonkowsky's advice on words is usually given informally--maybe in a phone conversation with Halberg, or in a three-way conversation with Halberg and a scientist from Milan or New Delhi. "That man gets more international telephone calls than anyone I know," Sonkowsky said of Halberg.

Although Sonkowsky had an undergraduate minor in biology, he said "that does not qualify me by any means to enter into the substance of their conversations, but somehow I can be of help."

"Generally speaking," Sonkowsky said, "scientists can speak plain English and I can understand it." When the scientists need a word for a new concept, Sonkowsky can suggest Greek and Latin roots that carry the right meaning and might ring a bell. Questions of spelling and the extent to which a word can be compressed are also considered.

In suggesting words, Sonkowsky often looks for "ancient associations that give a word strength." Sometimes he cites passages from classical literature in his

(MORE)

discussions with the scientists. "I enjoy this, and the scientists enjoy being reminded of the literature, especially European scientists who may have had some classical training at some time."

Latin and Greek are "rich with words that speak of time and timing, of doing things at the right time," Sonkowsky said. "The greatest biorhythm of all is the one that begins with birth and ends with death. Another is the rhythm of waking and sleeping. I enjoy chronobiology because it has so much to do with classical literature. It's an important and human thing."

Sonkowsky doesn't have a favorite among his invented words. "Probably the most famous term is one that was coined before I arrived at the University of Minnesota"--"circadian," which refers to rhythm that recurs over a period of about a day.

One of his words that Sonkowsky likes is "euchronize"--to make well through time --but he isn't even sure that the word has caught on. "I am realistic about words," he said. "If I felt paternalistic to the end about all of my children, it would be terrible."

Even in scientific language, Sonkowsky said, there is an element of persuasion in the coining of words. Halberg and other chronobiologists believe that doctors and everyone else should pay more attention to the dimension of time--the timing of administering drugs, for example--and there is "a kind of campaign involved in the invention of terminology."

Sonkowsky sees humor in some of the scientific terminology--"not humor at the expense of the scientists, but enjoying with them the kinds of technical language that we find ourselves getting into."

"Jet lag," for example, is "a perfectly marvelous two-syllable term," Sonkowsky said. "The respectable scientific term for jet lag is 'transmeridional dyschronism,' a concoction that has nothing but humor to recommend it."

Sonkowsky is not a purist. In forming words he tries to avoid hybridization--mixing Latin and Greek in the same word--but he doesn't have a hard-and-fast rule against it. "That in the eyes of many people is a sin, but there is such a long history of many centuries of hybridization."

In an age of specialization and a time when a classical education can no longer be taken for granted, it is good to know that scientists and humanists are still talking to each other. "We can still talk," Sonkowsky said. "At least we can talk about the language itself."

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MARCH 16, 1977

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AUSTRIAN CHANCELLOR
GIVES 'U' \$1 MILLION

(FOR IMMEDIATE RELEASE)

Chancellor Bruno Kreisky of Austria presented the University of Minnesota with a \$1 million check Wednesday (March 16) for the establishment of a center for Austrian studies.

Kreisky said the gift, which he described as the largest Austria has given to a foreign country, would be used for a center to help Americans understand Austria and to provide opportunities for Austrian students and scientists to study in the United States.

University of Minnesota President C. Peter Magrath accepted the gift in a modest ceremony. He presented Kreisky with a peace pipe made by Wiyohpeyata Hoksina ("Western Boy"), a Dakota pipe maker from the Sisseton-Wahpeton Sioux band.

Some \$700,000 of the gift was raised through the sale of Bicentennial Stars to the Austrian people in a contest last year. The money was matched by the Austrian government to fund the \$1 million gift to the University and a \$400,000 grant to Stanford University in California.

The two institutions were among several American universities that competed for the grant. "We wanted to give one grant to a public university and one to a private university," Kreisky said.

"We could, of course, have had the money transferred by a bank," Kreisky said. "But our personal appearance is an expression of our eagerness to become acquainted with your university, which is now entering in such a close and permanent relationship with the country that we represent."

Gov. Rudy Perpich, who gave a short message of thanks, noted that his father served in the army of Austria-Hungary from 1916 to 1918. Magrath said his grandmother was born in Vienna.

"Although Austria may be small in size, the Austrians are a people large in spirit, with a rich culture and history," Magrath said.

Neil C. Sherburne, chairman of the University Board of Regents, gave Kreisky a certificate of appreciation. Also on the platform during the ceremony were four representatives of Austria: Stephan Koren, leader of the opposition party in the Austrian parliament; Manfred Mautner-Markhof, president of the Austro-American Society; Karl Herbert Schober, Austrian ambassador to the United States, and Peter Jankowitsch, Austrian ambassador to the United Nations.

A reception was held following the ceremony. American news people questioned Kreisky, while an Austrian television team interviewed Magrath in German.

-UNS

(AO,1,13;B1;CO,1,13;DO,1,13;E15)

(FOR IMMEDIATE RELEASE)

Feature story from the
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CORPORATE NOMADS: STILL MOVING
BUT ENJOYING IT LESS?

By Jeannie Hanson
University News Service

"Margaret, I have to tell you something, I've been transferred and we're moving in two days." Margaret received the phone call at work. The children didn't find out until after school. With a promotion and a Sun Belt city beckoning, and with considerable consternation, the family moved.

Although fewer Americans moved in 1976 than in any other year since 1948, there are signs that a strengthening economy may lead one group, the corporate nomads, to the roads again in longer caravans. And as always, the executive transfers will have their problems as well as their advantages.

In an Atlas Van Lines survey conducted in 1976, 41 per cent of the corporations responding expected to transfer more personnel in 1976 than they had the previous year, citing an improving economy. Yet Business Week reported that transfer refusals, although still uncommon, were 10 times more frequent in 1975 than in the year before, with family and lifestyle reasons most often cited in the refusals.

Although it is an increasingly expensive proposition, companies have many good reasons for transferring executives, especially in an expanding economy, said Tom Mahoney, industrial relations professor at the University of Minnesota. Inside knowledge of the organization and a known performance record give current employees an advantage, and about 80 per cent of top corporate jobs are filled from within.

At middle management levels, particularly promising executives can expect to move as often as every two or three years as they advance, Mahoney said. Moves are also common as the company expands, copes with turnover, or even moves its entire operation. Transfers test loyalty to the company, too, and can encourage a flexible and "cool" approach, according to the Harvard Business Review.

To encourage mobility, transfers generally include a promotion--but there is a hitch. Some 51 per cent of companies responding to the Atlas Van Lines survey said a transfer refusal could hurt an executive's career. After one refusal, promotion chances are generally limited to the executive's current location, Mahoney said.

So why are transfer refusals increasing? Family reasons probably top the list, Mahoney said. Two-career families are an especially significant factor, according to Business Week. When there are two incomes, a family is less dependent on one of

(MORE)

them. Irreconcilable conflicts tend to cause these families to agree to stay in one place, according to Reuben Hill, sociologist at the University of Minnesota.

When two-career families do move, it is no longer always for the man's career. Mitchell Pearlstein, assistant to the president of the University of Minnesota, will soon move because his wife received a promotion. He predicts that this balancing act, although very difficult, will become more common in marriages. "It takes a lot of love," he said.

But the double standard still prevails in most cases, Hill said. At least one of the women who turned down a top Carter appointment did so to avoid disrupting her family. "It is significant that men leaving public life often mention the need to spend more time with their families, whereas women sometimes cite this as a reason for not taking a job to begin with," Hill said.

There is, however, more reluctance on the part of wives to transfer now, whether they hold jobs or not. As the Harvard Business Review puts it, wives of young executives are no longer so willing "to witness their husbands' seduction by corporate mistresses." Most corporate wives still agree to make the move, though, Mahoney said.

Children can seem to be just as great a problem, but they may not be. Adolescents usually raise the most objections to a move, but 7-to-12-year-olds are at the most vulnerable age, Hill said. Their school work and mental health suffer after a move.

But although children of all ages have problems, they eventually adjust better than their parents do. In fact, Hill said, children under 7 and over 12 who move have more motivation to achieve than do children who do not move, even though they may be especially concerned about acceptance by their peers.

Lifestyle can also discourage mobility. It can be hard to leave six horses and a farm near a Colorado job for the urban acres of Philadelphia, Mahoney said.

The costs of transferring can be almost as significant as family issues, according to Mahoney. Although many companies guarantee the purchase price for the family home, this price can be depressed depending on the time of year the house has to be sold. The common single free visit to the new city for house-hunting may not be enough, and executives who move ahead of their families bear the commuting costs of visits until the family follows. Extensive motel or apartment costs and remodeling of the new house also are not covered by the company.

Businesses currently do not do very much to smooth the moves, Mahoney said. Relocation companies offer a range of services but generally are used only for the highest executive transfers. Personnel department suggestions often are limited to where the local chain stores are and when the television shows are on in the new city.

(MORE)

Suggestions that could be made at a company meeting with both spouses include corresponding with the children's new teachers and including children in the early visit, according to an Atlas Van Lines symposium. A full psychological preview of the move, now done only for overseas transfers, could also be provided by the company, Mahoney said.

Given more help with family dynamics and with costs, more executives could be more willing to move in the next few years' caravans. After all, said Hill, families that move gain as much in flexibility as they lose in family and friendship ties, as painful as that can be.

-UNS-

(AO,12,27;B1,7;CO,12;DO,12;E12,27;G2,5,31)

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MARCH 17, 1977

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THEFTS DECLINE ON
UNIVERSITY CAMPUS

(FOR IMMEDIATE RELEASE)

Efforts to reduce thefts on the Twin Cities campus of the University of Minnesota resulted in a 20 per cent decline in larcenies during 1976, according to crime figures in the annual report of the University police department. The overall crime rate for the campus was down 16 per cent.

University police chief Eugene Wilson credited a bike patrol program, a special police unit with flexible duty hours, Operation ID and increased community involvement for the decline in reported thefts from 1,823 in 1975 to 1,456 in 1976. The reduction in thefts followed a 30 per cent increase in 1975.

Wilson reported there were 241 bike thefts last year, down 143. The 849 theft reports involving personal property and University property showed a decline of 217 from the previous year.

Personal property losses totaled \$91,327, with University property losses reported at \$69,284. Police recovered property valued at \$22,552.

Other declines were reported for burglaries, down 22, and vandalism, down 25.

Crimes against persons increased from 69 in 1975 to 100 in 1976, but 54 of the incidents were for sex offenses, not including rape, such as indecent conduct, exposing or indecent liberties.

Wilson acknowledged there was little that could be done to reduce the number of such incidents in a university setting where there is a high concentration of females. He expressed criticism of recent articles in the student newspaper by individuals "who see nothing wrong with this kind of behavior." Women account for approximately 40 per cent of enrollment on the Twin Cities campus.

(MORE)

University police made 152 criminal arrests during 1976, down from 214 the previous year. Wilson attributed part of the decline to a new tagging system that eliminates booking on minor offenses and a policy of referring certain minor offenses to the student counseling bureau for disposition.

He cited as examples individuals apprehended for the first time for the use or possession of very small quantities of marijuana and incidents of vandalism or disorderly conduct in which restitution is offered and accepted. Juveniles accounted for nearly half of all criminal arrests made by University police.

The increase in reported crimes against persons on the Twin Cities campus is a reflection of an increase in what Wilson calls "nuisance calls," not an indication that the campus is unsafe, he said.

"We have a community of 50,000 people interacting within a small area. Other universities in metropolitan areas have a great many more problems. We are part of an area, the east side of Minneapolis, with a traditionally low crime rate," Wilson said.

-UNS-

(AO,5,21;B1;CO;E15;F3,4)

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'U' RETURNS TO JULY
APPLICATION DEADLINE

(FOR IMMEDIATE RELEASE)

The University of Minnesota has announced that it will return to a July 15 application deadline for students planning to enroll in fall quarter classes in the College of Liberal Arts (CLA) and the General College on the Twin Cities campus and in undergraduate collegiate units on the Duluth campus.

The University last year changed the deadline to April 15 in anticipation of a record fall enrollment, but enrollment did not reach the predicted levels. The need for an early application deadline for fall 1978 will be evaluated next fall and a decision will be made by Nov. 1.

University officials estimate that enrollment next fall will come close to enrollment projections of 17,900 in CLA, 3,100 in General College and 6,350 in undergraduate programs at Duluth.

The University campuses at Crookston, Morris and Waseca accept applications beyond July 15. Twin Cities units that have earlier application deadlines include education, with an April 1 deadline for selected majors; medical technology, occupational and physical therapy, pharmacy and graduate dental hygiene program, April 15; architecture, May 1; dental assistant program, May 1 for priority consideration, and biological sciences, May 15 for priority consideration.

Some fields of study in the Graduate School also have early deadlines; information is available from the Graduate School. The Medical School and School of Dentistry have deadlines in the fall for admission the following year, and there is a March 1 deadline for fall admission to the Law School and School of Nursing.

-UNS-

(AO, 7, 15; B1; CO, 7, 15; DO, 7, 15)

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MINNESOTANS RESPONDED WELL
TO ENERGY EMERGENCY

(FOR RELEASE MONDAY, MARCH 21)

Minnesotans weathered the winter, as usual. What may have been less usual was their response to the energy emergency declared in the state.

Positive responses to Gov. Rudy Perpich's management of the energy emergency and to lowering home thermostats, but a negative response to the four-day school week, were found in a statewide survey conducted in mid-February by researchers at the University of Minnesota in cooperation with Mid-Continent Surveys.

A sample of 1,000 Minnesotans over age 18 were asked questions about what kind of job Gov. Perpich was doing in handling the energy emergency, whether their friends and neighbors were lowering their thermostats and how they felt about a four-day school week.

Three-fourths of the Minnesotans surveyed rated Perpich's performance as excellent to good. There were no substantial differences in attitude between Twin Cities area and out-state Minnesotans or between men and women. Attitudes toward Perpich's performance were, however, more positive among middle-aged Minnesotans with larger incomes and more education.

Three-fourths of the respondents also felt that others were lowering thermostats. (This kind of question often encourages people to report what they are doing themselves, according to researcher Cindy Johnson.) More metropolitan area than out-state residents responded positively to lowering thermostats, as did more middle-aged people with greater education and income. People under 35 were the most skeptical, while elderly people most often didn't know or were apathetic toward the issue.

Cutting the school week to four days was the most controversial of the three issues, with only 35 per cent of Minnesotans favoring the idea and 45 per cent

(MORE)

opposed. There were no substantial differences between Twin Cities residents and out-state people on the subject, but women were more opposed than men. The 35-49 age group registered the most opposition, while people with lower incomes and less education were more in favor of cutting the school week.

The survey was designed and analyzed by University of Minnesota graduate business students Cindy Johnson, Sue Chadwick and Jan Spring under the direction of marketing professor William Rudelius. The sample was selected by cluster probability methods. Sampling and interviewing were done by Mid-Continent Surveys, Inc.

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SUPPLEMENTARY INFORMATION: Specific questions asked in the survey, and the breakdown of responses given, were as follows;

1. Which of the following phrases best describes what kind of job you feel Governor Perpich is doing in dealing with the energy crisis?

	Excellent-Good	Neutral-Terrible	Don't Know
All respondents	75 %	17 %	9 %
Under 35	69 %	24 %	7 %
35-64	82 %	12 %	7 %
Over 64	70 %	13 %	17 %
Income under \$10,000	69 %	19 %	13 %
Income over \$10,000	79 %	16 %	5 %
Up to h.s. education	71 %	18 %	12 %
Post-h.s. education	79 %	15 %	6 %

2. Are most of your friends and neighbors keeping the temperatures in their homes lower this winter than last year?

	Yes	No	Don't Know
All respondents	76 %	8 %	16 %
Twin Cities	80 %	6 %	14 %
Out-state	73 %	9 %	18 %

(MORE)

SURVEY

-3-

Under 35	77 %	11 %	12 %
35-64	79 %	6 %	16 %
Over 64	68 %	5 %	27 %
Income under \$10,000	71 %	8 %	22 %
Income over \$10,000	81 %	9 %	11 %
Up to h.s. education	70 %	10 %	20 %
Post-h.s. education	83 %	6 %	11 %

3. Which of the following best describes what you think about schools cutting back to a four-day school week as a way to save energy?

	Favor	Oppose	Neutral- Don't Know
All respondents	35 %	45 %	20 %
Men	39 %	42 %	19 %
Women	31 %	47 %	21 %
Under 35	40 %	43 %	17 %
35-64	31 %	51 %	18 %
Over 64	33 %	34 %	33 %
Income under \$10,000	36 %	42 %	22 %
Income over \$10,000	34 %	48 %	19 %
Up to h.s. education	36 %	41 %	23 %
Post-h.s. education	34 %	50 %	16 %

-UNS-

(AO,18;B1,2,7;CO;DO;E18)

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MARCH 18, 1977

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GIFT TO PROVIDE LAW
STUDENT HONOR STIPEND

(FOR IMMEDIATE RELEASE)

A gift from friends of Judge Clarence A. Rolloff of the Eighth Minnesota Circuit Court in Montevideo upon the occasion of his retirement will be used to provide a stipend for the law review president at the University of Minnesota.

The gift of about \$6,000 will allow the University to invest the money to provide a stipend of between \$350 and \$400 a year for the president of the student-run scholarly journal, the Minnesota Law Review.

The first recipient of the stipend is also the first woman chosen president of the law review board of editors. She is Madge S. Thorsen of Minneapolis.

Judge Rolloff was president of the law review board of editors in 1929, the year he graduated. The gift was made possible by donations from his friends upon his retirement last year, and the judge decided how it would be used, according to Robert Grabb, associate dean of the Law School.

Grabb said the law review involves a lot of work for a senior-year law student. Membership on the board has never been a paying position.

-UNS-

(AO,28;B1,6)

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MARCH 18, 1977

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'U' BUSINESS SURVEY
SHOWS SLOWDOWN

(FOR IMMEDIATE RELEASE)

The harsh winter affected Minnesota businesses, according to the quarterly survey of Minnesota business conditions conducted in February by the College of Business Administration at the University of Minnesota.

The survey administered by Roger Upson, associate dean of the college, showed retail sales down considerably from last quarter and only slightly ahead of last winter's levels. Many retailers blamed the January cold, Upson said, as heating bills claimed consumer dollars that could have gone to retail buying. However, retailers generally avoided high inventory costs, because inventory levels were also down compared to a year ago.

Minnesota manufacturers found a softer demand for output, too, according to the survey. Since their inventories increased, future production cuts might be expected, Upson said. For the quarter, 38 per cent of the manufacturers reported production gains and 27 per cent reported lower production.

Spring will bring increased consumer demand, Upson said, and retail inventories and employment should increase. Some manufacturers are probably overstocked, however, so new orders will probably decline, he said.

The overall projection is for a slower growth rate in the future, Upson said.

-UNS-

(A12;B1;CO,12)

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MARCH 22, 1977

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WOMEN IN HEALTH CAREERS
TOPIC OF EVENING SEMINAR

(FOR IMMEDIATE RELEASE)

An eight-week evening seminar on health careers for women will begin Tuesday, April 5, on the Minneapolis campus of the University of Minnesota.

The seminar will include panel discussions with women in veterinary medicine, dentistry, medicine and nursing. In addition, one session will focus on the problems inherent in husband-wife teams of health professionals.

Course participants will have the opportunity to examine their own attitudes toward various jobs traditionally held by women and those that are more unusual.

One evening of the seminar will deal with women health workers in the 17th and 18th centuries.

There is no charge for the seminar and registration may be made by writing Room 30, Johnston Hall, University of Minnesota, 101 Pleasant St. SE., Minneapolis, Minn. 55455. For more information call 373-2912 or 376-7564.

-UNS-

(AO, 22, 23, 27; B1)

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MINNESOTA PSYCHOLOGY TEST USED WORLD-WIDE

By Bill Hafling
University News Service

"My sex life is satisfactory," Yes___ No___ Cannot Say___

Nibbling at her pencil, a Japanese college student answered this common item on the Minnesota Multiphasic Personality Inventory (MMPI) by marking the "cannot say" line, and moved on to the next item.

According to "A Handbook of Cross-National MMPI Research" (University of Minnesota Press, 1976), some 30 per cent of Japanese women taking the MMPI answered this question with "cannot say." Less than 30 per cent answered "true" to the question. Japanese males seemed more frank. Less than 20 per cent answered true.

In Israel, on the other hand, University of Minnesota-trained psychologist Raya Gur found that 59 per cent of the males and 64 per cent of the females answered "true" to this item, though 12 per cent of the females still answered "cannot say."

Incorporating such items as "I like mechanics magazines," "I wake up fresh and rested most mornings," "at times I feel like smashing things" and "evil spirits possess me at times," the MMPI was developed at the University of Minnesota in the 1930's by psychology professor Starke R. Hathaway and psychiatrist J. C. McKinley.

Hathaway and McKinley hoped to come up with a personality test useful in psychiatric screening and classification. Test items were chosen from a wide variety of sources in an attempt to cover a wide range of clinical problems and behavior.

Today, although psychological researchers maintain that the MMPI is primarily a research instrument and warn against its overuse and misuse, it is being used throughout the U.S. and increasingly throughout the world.

After analysis of the personality profile generated by answers to all 566 questions asked by the MMPI, for example, Gur was able to describe the average Israeli female as "somewhat more unconventional in her thinking than the average American female, somewhat impulsive and socially sensitive as well as introverted." She said the test also showed the average Israeli male also was socially sensitive and "exhibits a higher level of activity than does the average American male," among other things.

Inmates at a tough Alabama prison formed a "protection scheme" and even called off a fight between the two gangs which rule the prison so that University of Alabama psychology professor Raymond D. Fowler and his students could complete classifications of some 4,000 prisoners there, using the MMPI. The Federal District Court-ordered

(MORE)

evaluations were to be used to determine such things as which part of the prison a prisoner might be kept in, training plans and plans for release from prison.

Critically reviewing the wide use now made of the MMPI throughout the U.S. and the world, Hathaway commented that "most working psychologists and others who must make daily judgments and decisions that affect the lives of others find that the test, with all its faults, affords some independent security for insecure personal judgments."

Noting that "man has always been concerned with appraising the behavior of his fellow man since understanding and predicting the behavior of others has survival value," psychology professor Neal Butcher of the University of Minnesota said that the ways in which people tried to assess the personalities of others in the "pre-scientific era" were not much different from many current methods used by modern "personality assessors."

Co-author of "A Handbook of Cross-National MMPI Research" (with Italian researcher Paolo Pancheri), Butcher said that the interpretation of MMPI profiles is not as simple as some clinicians seem to think.

For example, although a person might score high on a given MMPI scale, say the one for schizophrenia, this does not mean that they are necessarily "schizophrenic." As Butcher pointed out, "many normal individuals score high on some clinical scales and some clinical subtypes do not have elevated MMPI scores."

The MMPI includes ten scales of psychopathology and three validity scales. A person who answers MMPI items in a certain way, which may be different from the "normal" person's pattern of responses to the same items, might be considered then to share the thought patterns or life views of others with similar scoring patterns. MMPI scales are labelled, (1) hypochondriasis, (2) depression, (3) hysteria, (4) psychopathic deviate, (5) masculinity-femininity, (6) paranoia, (7) psychasthenia (tense, anxious, rigid), (8) schizophrenia, (9) mania, and (0) social introversion-extroversion.

An unusual profile or pattern of answers on these scales is considered a cue to the mental health practitioner to pay more attention to the person producing such a pattern in looking for and dealing with real-life problems.

Butcher has recently criticized the computerized and automated MMPI profile interpretations which have come into vogue. "Computer technology has really surpassed psychological knowledge," he said. "So in the 70's, we're outrunning psychological information. We don't know all about the psyche."

Computerized psychological assessments are "an art or a craft disguised as a science," Butcher said. "Narrative reports are only clinical hunches fed into a conscienceless mechanical beast which cares not at all where the information stored in it came from. I think the computer approach is over-sold. Once written, these

computer systems become chiseled in stone, even though they may be at a naive level."

Nevertheless, with all its flaws and the need for far more research in personality and human behavior in general, the MMPI has become one of Minnesota's better-known international exports.

Despite occasional differences in the answers to some questions, it appears that much more is agreed on among people of different nations and geographical areas than is different insofar as MMPI patterns go. "I've become quite impressed with the universality and commonality of thought in people of Westernized nations, Israel, Italy, Costa Rica, Mexico, and Switzerland, shown on the MMPI," Butcher said. "Normal subjects from different countries and with different language translations to contend with, respond to MMPI item content in an essentially similar manner."

In spite of its success and wide acceptance, Butcher said that it is important to remember that "the MMPI is just a screening method. It is not the last word in clinical diagnosis."

-UNS-

(B1,4,5,6,9;CO,6;D6;E3,6)

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VALUABLE METALS MAY LIE
UNDER MINNESOTA TERRAIN

By Jeannie Hanson
University News Service

Minnesota, the state that missed out on glamorous fossil fuels like oil, gas and coal may have precious metals "under them thar hills." Increasingly valuable and mineable deposits of copper-zinc, aluminum, uranium, lead-zinc, and some gold may be buried in Minnesota, according to Sam Sawkins, geologist at the University of Minnesota.

Prospecting for these minerals has been limited so far because Minnesota is a difficult and expensive place for geological exploration, Sawkins said. Much of the land is covered with "glacial drift," soil and rocks several hundred feet thick, laid down by glaciers over a million-year period. Outcroppings of valuable metals near the surface are thus seldom found.

"Prospectors found all the valuable outcroppings long ago," Sawkins said. As a result, the big exploration dollars have gone where metals are easier to find. Minnesota's metals continue to lie in deep, cold storage.

"However, with metal prices rising in an improving economy, I look for the situation to change," he said. "Exxon, for example, has already begun airplane surveys (using electromagnetic signals), ground surveys, and some drilling in northern Minnesota near the Canadian border."

Northern Minnesota is one of the areas potentially rich in massive copper-zinc deposits, similar to those found across the Canadian border.

So far, no major deposit has been found in northern Minnesota but the terrain is very promising. "There is about a 90 per cent chance of there being at least one large deposit up there, worth \$50 to \$100 million. It's just a question of finding it in an accessible place, as happened recently in Wisconsin," Sawkins said.

The copper-zinc was brought close to the surface in northern Minnesota by volcanoes that erupted across the state about 2.7 billion years ago, before the continents were formed.

These ancient volcanoes could now produce profits. Copper is needed for virtually all electrical wiring, in products from air conditioners to cars. Zinc is used for galvanizing and coating other metals in industry and for die-casting and making brass, Sawkins said.

(MORE)

Aluminum is a more distant possibility for Minnesota, he said. It has become much more useful and valuable for everything from storm windows and cans to high voltage electrical transmission wires. "There are enormous quantities of feldspar-rich rocks in the Duluth Gabbro Complex containing about 20 per cent aluminum," Sawkins said. "But our technology does not make it practical to mine there yet. It is hard to refine the rocks economically and probably will be for the next two decades."

Also rich in aluminum is weathered clay in the St. Cloud area. It is in underground storage too, awaiting higher prices and better technology.

All this Minnesota aluminum was formed when the state's climate was tropical about 100 million years ago, Sawkins said. Water percolated through granite and other rocks, leaching off other minerals and leaving the aluminum more concentrated.

Uranium finds are possible in Minnesota too, though probably not in such large concentrations as aluminum, Sawkins said. "If a lot of it were there near the surface, someone toting a Geiger counter would probably have found it by now." Uranium exploration has not been exhaustive yet. Terrains in central Minnesota, northern Minnesota, and the Minnesota River Valley--all older granite rocks--remain to be searched.

Other valuable metal possibilities in Minnesota include lead-zinc deposits in southern Minnesota and some gold in northern Minnesota, Sawkins said. Though Minnesota's potential mineral riches lie mostly under miles of glacial drift, geologists are learning to "read" the evidence for them in terrain and rock formations--to help predict future riches.

-UNS-

(AO,18;B1,2,9;E9,18,19;G7,8)

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SEMINARS AT 'U' ON GOV.
FUNDING OF SOCIAL SERVICES

(FOR IMMEDIATE RELEASE)

Two seminars are scheduled at the University of Minnesota to discuss a major issue in government funding of social services: should county governments now receive the authority to allocate grants among social services areas?

Areas that could be affected by future funding changes are child care, chemical dependency counseling, services to the aged, mental health, marital counseling, and other social services. Legislation is now under consideration to make this funding change.

To discuss the background and implications of this proposed change, seminars have been set for Tuesday, April 5, on consolidation into block grants, and Tuesday, April 12, on effects of consolidation.

Both seminars will run from 3 until 5 p.m. in the East Wing of the Campus Club, Coffman Union, University of Minnesota, Minneapolis campus. Panelists will be drawn from the Schools of Social Work and Public Affairs, the State Planning Agency, the House research staff and Social Service Providers.

No advance registration is required and both seminars are free. Parking will be reserved for participants in Ramp B (behind Coffman Union) to those identifying "CURA" to the parking attendant.

-UNS-

(AO,19;B1;CO)

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MARCH 24, 1977

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'FUTURE SHOES' TO APPEAR
ON KTCA NEXT WEEK

(FOR IMMEDIATE RELEASE)

"Future Shoes," a new, half-hour monthly special, will be broadcast at 7 p.m. Wednesday (March 30) on KTCA-TV, Channel 2.

Described by one of its creators as a "light-hearted approach to public affairs programming," "Future Shoes" will present each month a selection of "ideas and entertainments" from the University of Minnesota.

Wednesday's segment will feature "Teddy," a short film about a handicapped University student; "Figures of Thought," with University philosopher and biophysicist Otto Schmitt musing on what's wrong with the way we think; "Matisse: 1-2-3-4," photography-painting by Minneapolis artist Gemma Gatti, and "A Round Feeling," a film by Minneapolis artist Kathy Laughlin about what happens after the laundromat closes.

Each month, the show also will feature performances by members of the West Bank School of Music faculty and new work in animation. The show is co-produced by Richard Breitman and Michael Finley, staff members for Media Resources and University Relations at the University of Minnesota.

-UNS-

(A0,2;B1;F6)

UNIVERSITY OF MINNESOTA
NEWS SERVICE, S-68 MORRILL HALL
100 CHURCH ST. SE.
MINNEAPOLIS, MINNESOTA 55455
MARCH 24, 1977

MTR
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JAF

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

'U' BANDS DIRECTOR
RECEIVES MUSIC AWARD

(FOR IMMEDIATE RELEASE)

University of Minnesota bands director Frank Bencriscutto has won the 1977 Neil A. Kjos Memorial Award for the most significant contribution to band literature.

The award includes \$6,000 and a guaranty of publication for his composition, "Sing a New Song" (Psalm 96). The work was selected from more than 30 band compositions.

Bencriscutto explained that he selected Psalm 96 for the basis of his composition because of the "joyful, optimistic message, suggesting that Americans sing a new song and reach for divine truth."

"This message is not only appropriate at the outset of our third century as a nation, but basic to our survival," he said. The three-part work combines fanfares, euphoric choral passages and subtle jazz influences.

Bencriscutto is currently on a sabbatical leave from the University and is devoting his time to writing, performing and guest conducting.

The Neil A. Kjos Memorial Award is an international competition sponsored by the Neil A. Kjos Music Company, an educational music publisher in Park Ridge, Ill. The jury is composed of different experienced band directors each year.

-UNS-

(AO,2,29;B1;CO,2;DO,2;E29)

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MARCH 24, 1977

UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
March 27-April 2

- Sun., March 27---St. Paul Student Center Galleries: Japanese Sumie Paintings by Mitsuko Evans, North Star Gallery; "Our American Heritage," photographs by Del Cass, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through April 1. Free.
- Sun., March 27---Jaques Gallery: Watercolors and Scratchboards by Dana Gardner. Bell Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through April 10. Free.
- Mon., March 28---Coffman Gallery: "Clay Sculpture, Fiber, Fabric Exhibit," Gallery I, through April 21; "Of Function and Expression" by design graduate students, Gallery II, through March 31. 10 a.m.-4 p.m. Mon.-Fri. Free.
- Mon., March 28---Noon Cartoons: "Roadrunner" and "Flash Gordon." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:15 p.m. 25¢.
- Mon., March 28---Recital: Karen Broberg, piano. Scott Hall aud. 8 p.m. Free.
- Tues., March 29---Wilderness Living: "Survival--A State of Mind" by Tim Kneeland. McNeal Hall aud. 7 p.m. \$1.50 per session, \$10 for 8 sessions.
- Tues., March 29---Recital: Terri Mandel, voice. Scott Hall aud. 8 p.m. Free.
- Wed., March 30---Lecture: "The Thirties: A Multimedia Presentation" by Professor Bassett, Colby College. Theater-lecture hall, Coffman Union. 11:15 a.m. Free.
- Wed., March 30---Foreign Film Series: "The Conformist" by Bernardo Bertolucci. Theater-lecture hall, Coffman Union. 7 and 9:15 p.m. \$1.50.
- Wed., March 30---Concert: David Baldwin, trumpet. Scott Hall aud. 8 p.m. Free.
- Thurs., March 31---Lecture: "The Failure of Modern Architecture" by Wolf Von Eckardt. 125 Auditorium Classroom Bldg. 3:15 p.m. Free.
- Fri., April 1---U Film Society: "The Story of a Sin." Area premiere. Bell Museum of Natural History aud. 7:30 and 9:40 p.m. \$2.
- Fri., April 1---The Whole Coffeehouse: Jim Ringer and Mary McCaslin. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, TOO and Positively 4th Street.
- Sat., April 2---U Film Society: "The Story of a Sin." Area premiere. Bell Museum of Natural History aud. 7:30 and 9:40 p.m. \$2.
- Sat., April 2---The Whole Coffeehouse: Jim Ringer and Mary McCaslin. Coffman Union. Doors open 8:30 p.m. \$2.50. Tickets on sale at MSA, TOO and Positively 4th Street.

UNIVERSITY OF MINNESOTA
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MINNEAPOLIS, MINNESOTA 55455
MARCH 25, 1977

MTR
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GASK

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

BALDWIN, FREED IN RECITAL

(FOR IMMEDIATE RELEASE)

David Baldwin, trumpet, and Paul Freed, piano, will be presented in a public recital Wednesday (March 30) at 8 p.m. in Scott Hall auditorium, University of Minnesota, Minneapolis.

The event is part of the music department's Faculty Performance Series. There is no admission charge.

"Absurdities for Brass Trio (1976)," composed by Baldwin, an assistant professor of music, will be featured in the program which will also include concertos by Georg Philipp Telemann, J. B. G. Neruda and Alexander Arutunian.

Baldwin and Freed, a professor of music at the University, will be assisted by Leslie Gaska, horn, and Homer Lambrecht, trombone.

-UNS-

(AO, 2, 29; B1; CO, 2)

UNIVERSITY OF MINNESOTA
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MARCH 25, 1977

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NEWS PEOPLE: For further information
contact RONAELE SAYRE, 373-7516

WARREN SPANNAUS TO BE
HONORED BY U OF M

(FOR IMMEDIATE RELEASE)

Minnesota Attorney General Warren Spannaus began his college career at the University of Minnesota's General College in 1955.

Next week that same college will honor him with its Outstanding Achievement Award in an evening ceremony.

Spannaus will be the guest of honor at the annual meeting of the General College Alumni Association Friday (April 1) at the Midland Hills Golf Club in St. Paul at 6 p.m.

The award is presented by the University's Board of Regents to former students who have attained distinction in their respective fields.

Spannaus earned a bachelor of science degree in business in 1958 and a law degree in 1963, both from the University of Minnesota.

Long active in DFL politics, Spannaus was a special assistant to Walter Mondale and Robert Mattson, both former attorneys general, before becoming attorney general himself in 1970. He was re-elected in 1974 with the largest plurality of any candidate on the slate.

In recommending the OAA to Spannaus, the General College Alumni Association noted his support of environmental protection legislation and his representation of the public in numerous utility-rate, health, insurance, highway and welfare suits.

The award cites Spannaus for his loyalty, dedication and willingness to act on controversial issues on behalf of the people of the state.

-UNS-

(AO,1,28;B1,6;CO,1)

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MARCH 25, 1977

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NEWS PEOPLE: For further information
contact W. R. HAFLING, 373-5290

RECOMBINANT DNA, GENETIC ENGINEERING:
MORE HAZARDOUS THAN ATOMIC POWER?

(FOR IMMEDIATE RELEASE)

At this moment there are laboratories throughout the world doing research on recombinant DNA--genetic engineering--which scientists agree opens potential for serious hazards and possible benefits far exceeding the discoveries of the atomic era.

Because of the need for public awareness and understanding of such research, University of Minnesota researchers have scheduled a special panel discussion for Wednesday (March 30) at 7:30 p.m. in 175 Auditorium Classroom Building on the West Bank of the Minneapolis campus (next to the Law School construction area).

Robert Sinsheimer, head of the division of biology at Caltech, will be the main speaker. Other panel members are Irwin Rubenstein, Keith Klein, and V. Elving Anderson of the University of Minnesota's department of genetics and cell biology, and Donald Vesley of environmental health.

Assistant Prof. Martin Blumenfeld of the College of Biological Sciences will be panel moderator. According to Blumenfeld, a possible hazard of research on recombinant DNA is that new strains of harmful bacteria resistant to all known antibiotics may be generated. "By introducing new genes through recombinations of DNA, we could introduce new modes of antibiotic resistance to these bacteria. None of these developments in genetic engineering are so far-fetched today," he said.

-UNS-

(AO,4,18,23;B1,2,5,9;CO,4;D4)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 28, 1977

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BANK PREMIUMS: BEST FOR
DEPOSITORS OR FOR BANKS?

By Jeannie Hanson
University News Service

It sounds like a consumer cornucopia: electronic calculators, leather suitcases, antique clocks, fancy key chains, video games, teddy bears, subscriptions to Money Magazine, giant green plants, country pottery sets, piggy banks, shag carpets, silver sets, copies of "Sylvia Porter's Money Book," even a shiny new Mercedes Benz.

All of these items, and more, have been given away as premiums in exchange for deposits by at least one bank in four over the past 30 years, and an improving economy could bring more banks into the movement.

Are banks that offer premiums victims of the hit-and-run depositor in a new kind of bank robbery? Or can these premiums be a real boon for banks?

Research at the University of Minnesota, conducted by marketing professors William Rudelius, Robert Dwyer, and Rob Preston (now at the Minneapolis Federal Reserve bank), reveals that customer interest in a good premium promotion can add up to very good business on a bank ledger.

Surprisingly few people seeking premiums are modern Bonnies and Clydes. "Only about one person in seven pockets the premium and then withdraws the money within six months," Rudelius said.

Research into randomly selected, computerized bank account balances at two randomly selected midwestern banks, one metropolitan and one suburban, revealed still more.

People opening new bank accounts in the two weeks after a premium is advertised become quite loyal and valuable customers, Dwyer said. If they open a checking account to get a premium, they are no more likely to close it quickly than people opening an account at any other time. Those opening a new savings account for a

(MORE)

premium are more likely to close it, but this action is still a boon for the bank because almost twice as many new accounts are opened during the premium period.

Another interesting fact is that people who open accounts to get premiums "do not just deposit barely enough money to qualify for the premium," Rudelius said. The new customers deposit the same average amount of money as those opening accounts at other times, \$500 for checking and \$1,500 to \$2,500 for savings.

The total of new deposits during an effective premium promotion "runs to millions of dollars," Rudelius said.

Of course, all this money is not clear profit or even clear capital, he said. Banks must figure in several factors not covered in the research study: the cost of the premium product itself, handling costs, advertising, opening and closing costs and the effect on other bank services.

Premiums costs are not excessive, Dwyer said. Banks order so many of the premium items that they qualify for large discounts, and, by law, the premium cannot cost the bank more than \$5 for a deposit of up to \$5,000 or more than \$10 for a deposit over \$5,000. Higher-priced premiums can be offered only instead of interest on large deposits.

Careful selection of the premium also maximizes its effectiveness, Rudelius said. Premiums are designed to attract certain groups of new customers and are pre-tested on panels of potential customers.

For example, money-related premiums, such as "Sylvia Porter's Money Book," are intended to appeal to people with money. Household products are selected as premiums to bring in young families who will grow with the bank. And many premiums and services are chosen to appeal to people over 55. "This age group, in the Twin Cities area at least, owns about 70 per cent of the money available for saving," Rudelius said.

For all these reasons, the balance sheet for premium campaigns looks good in the research--and in the experience of banks. Of the banks that have tried premium promotions nationally, only about five per cent have abandoned them. So why have only about 25 per cent of the banks in the country run premium promotions?

(MORE)

"Many banks feel that premiums don't fit with their self-image as competent money managers," Dwyer said. Savings and loan institutions seldom have this hang-up, however, since they deal mainly with consumers.

Still other banks may be located in areas without much competition for the savings dollar or without much population turnover. For these banks, premiums might not be as important, Dwyer said.

Other banks, without experience with premiums, fear the hit-and-run depositors. To the extent to which this midwestern study can be generalized, this fear now seems unwarranted, Rudelius said.

So the future may see more new bank customers lining up for free teddy bears, calculators, and sports cars--and proving that premiums can be a boon for banks too.

-UNS-

(AO, 12; B1, 7; CO, 12; DO, 12; E12; G2, 5, 31)

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MARCH 28, 1977

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NEWS PEOPLE: For further information
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U OF M TASK FORCE
TO STUDY ATHLETICS

(FOR IMMEDIATE RELEASE)

The role of intercollegiate athletics at the University of Minnesota will be studied by a 21-member task force of students, faculty members, administrators and alumni selected recently by University President C. Peter Magrath.

Magrath has asked the group to:

- develop a statement of purpose for intercollegiate athletics,
- recommend methods of financing intercollegiate athletics,
- comment on the effect of the programs and,
- recommend any organizational changes to make it reflect the conclusions of the task force.

The task force includes five students, five alumni and others from outside the University, and eleven voting and nonvoting representatives of the faculty and administration, including Paul Giel and Vivian Barfield, directors of men's and women's intercollegiate athletics.

The first meeting of the group will be at 3:15 p.m. Friday (April 1) in the regents' room, 238 Morrill Hall. The task force was asked to complete its work by Feb. 1, 1978.

"I would like the task force to help guide me on the extent to which intercollegiate athletic programs are directly educational in their relationship to students; serve extracurricular purposes that, in effect, provide supplementary opportunities outside of the classroom for the personal development of the student; serve public relations purposes and community purposes in view of the fact that the University of Minnesota is a state university; and provide service to professional sports organizations in a fashion roughly analogous to the professional purposes served by such direct education programs as, for example, engineering or business schools," Magrath said.

-UNS-

(A0,1;B1;C0;D1)

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MARCH 29, 1977

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A4P

NEWS PEOPLE: For further information
contact RONAELE SAYRE, 373-7516

U OF M EVENING CHILD-CARE
TO CONTINUE SPRING QUARTER

(FOR IMMEDIATE RELEASE)

Evening child-care facilities will be provided spring quarter on the Minneapolis campus of the University of Minnesota.

The program, sponsored by the United Evening Educational Enhancement Program, a student organization, is licensed to care for 20 children between the ages of six to 12 years of age.

Located in the Armory Building, 15 Church St. SE., the center operates Monday through Thursday from 5:15 to 10:15 p.m. and offers creative and educational activities for children.

The program was established on a pilot basis last fall, continued winter quarter and was licensed by the state shortly after the beginning of the year. It is included in a bill currently under consideration by the Minnesota Legislature to establish night care facilities at selected colleges and universities throughout the state.

Registration in the University program is open to University students, faculty and staff members. Rates for one child for one to four nights range from \$30 to \$75; \$48 to \$120 for two children, \$60 to \$150 for three children and \$66 to \$165 for four children.

For more information or to register call 373-3042.

-UNS-

(AO,7;B1)

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MARCH 29, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

ALAN MANDEL IN RECITAL

(FOR IMMEDIATE RELEASE)

Pianist Alan Mandel will perform in a public recital Monday (April 4) at 8 p.m. in Scott Hall auditorium on the University of Minnesota Minneapolis campus.

Twelve Fantasy Pieces after the Zodiac from Makrokosmos, Volume II by George Crumb, written for amplified piano, will be featured in the program which also will include works by Charles Ives, Henry Cowell, Robert Hall Lewis, Charles Camilleri, Charles Chaynes and Iannis Xenakis.

The event is sponsored by the music department and there will be no admission charge.

Mandel and his wife, Nancy, a violinist, are also conducting master classes at the University Monday afternoon and will be performing in concert at Walker Art Center this weekend.

-UNS-

(AO, 2, 29; B1; CO, 2)

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MARCH 29, 1977

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JALP

NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

ENGLISH PHOTOGRAPHER
TO SPEAK AT 'U'

(FOR IMMEDIATE RELEASE)

English photographer and filmmaker James Collins will give a public talk on his work and that of other contemporary photographers Monday (April 4) at 7:30 p.m. in room 125 West Bank auditorium, University of Minnesota, Minneapolis.

Collins, who now lives in New York, N.Y., has been represented in several international exhibitions and has been invited to participate in Documenta 1977 in Kassel, Germany. Numerous articles and reviews have been published about his work, including an article in the April issue of Art Forum magazine.

"Post Conceptual Tendencies" will be the topic for his presentation at the University, sponsored by the Visiting Artists program of the studio arts department and the Minneapolis College of Art and Design.

There will be no admission charge.

-UNS-

(AO,2,31,32;B1;CO,2;F11)

(FOR IMMEDIATE RELEASE)

Feature story from the
University of Minnesota
News Service, S-68 Morrill Hall
100 Church St. SE.
Minneapolis, Minnesota 55455
Telephone: (612) 373-5193
March 30, 1977

COUNCIL PROPOSES WAYS
TO SAVE MINNESOTA SCHOOLS

By Jeannie Hanson
University News Service

The handwriting on the school wall is not graffiti this time. It is future shock: There will be 25 per cent fewer students in elementary schools across Minnesota in 1980 than there were in 1970. There will be some 250,000 fewer students in the state's elementary and secondary schools in 1985 than there were in 1970.

Declining enrollments like these--along with a growing property tax rebellion and inflated costs--are damaging schools more thoroughly than vandals ever could.

If nothing is done, one-third of the state's school districts will be forced into New York-style bankruptcy by 1980, according to Van Mueller, professor of educational administration at the University of Minnesota and now on sabbatical leave to work at the State Planning Agency.

Another third of Minnesota's school districts could continue to operate into 1980 only by drastically cutting programs and services. "This group may have to choose whether to teach English or math," Mueller said.

Only a lucky third of the districts will be able to scrape by with only "minor measures" such as closing some school buildings and increasing class sizes, he said.

With Minnesota's school districts under siege, it is natural to expect leadership to emerge. "But school administrators, teachers, civic groups, parents, and, until now, the Legislature, have all been retreating from the problem in considerable disarray," Mueller said.

The first definite move in the battle to save Minnesota's school districts, made by Sen. Gerald Anderson, DFL-North Branch, was to propose consolidations of the state's 440 school districts into 92 districts. Although opposition is strong and the bill will not pass this session, the problem and this proposed solution will not go away, Mueller said.

(MORE)

So alternative attacks on the problem of declining numbers of students and less money have been developed by the Advisory Council on Fluctuating School Enrollments, established by the Legislature, with Mueller as chairperson.

The key proposal, according to Mueller, is to encourage school districts to plan for the future themselves. In the Advisory Council's plan, recently submitted to the Legislature but not yet acted upon, the Legislature would provide planning funds for every region of the state. At regional meetings, representatives from every school district would arrive at individual plans for 1980, based on local enrollments, needs and facilities. These regional plans would then be submitted to the Legislature.

In this way, districts would have a chance to "do some horse-trading," cooperate, even consolidate in certain areas, without being forced to, Mueller said.

Another recommendation offered by the Council is an increase in legislatively appropriated state aid to school districts, especially those with fast-declining enrollments, older (more expensive) staff people and special transportation needs. As part of this plan, still other special grants would go to districts that hire younger teachers who lost jobs elsewhere because of declining enrollments, and, as severance pay, to teachers choosing early retirement.

Along with the aid, the Legislature would require school districts to submit data to a management monitoring system and to submit any proposals for building construction. School districts also would be required to combine their teacher seniority lists into one list if they consolidate and to agree upon a uniform teacher probationary period of three years, whether a teacher changes districts or not.

Under this plan the Legislature would amend laws to permit pairing of schools from different districts, to drop restrictions on class sizes, and to encourage teachers to leave teaching by guaranteeing them jobs for two years while they are on unpaid leaves.

(MORE)

School districts would take definite steps too, according to the Advisory Council plan. They would encourage teacher mobility by offering two-year unpaid leaves of absence (without loss of benefits), severance pay, and by removing ceilings on the number of years of seniority that can be accumulated. Districts would encourage teachers to move from full-time to half-time positions by prorating their benefits and would provide staff development programs for remaining teachers and planners and cooperate with other districts in buying supplies, sharing, or leasing buildings and applying for grants.

Citizens, Mueller said, should study their schools to see if realistic plans are being made for the future. "This is not a problem school administrators are inventing," he added. There are only a few alternatives to consolidation: tax levies, referenda, extensive cooperation among districts, drastic reduction in the quality of education, and consolidation (though not necessarily down to 92 districts), Mueller said.

The handwriting is on the wall, according to Mueller. Thirty years ago, Minnesota had 7,700 school districts, "based on how far a five-year-old could walk." Ten years ago, the number had dropped to 1,700 districts. Now there are 440.

None of these consolidations were popular, Mueller said. All were mandated by the Legislature, as major consolidations in other parts of the country have been.

But with regional planning and tough choices, Minnesota's schools could adapt to enrollment declines and even improve, according to Mueller.

If reasonable and decisive steps are taken, Mueller said, he sees Minnesota's schools looking quite different five years from now. Fewer but larger high schools could draw students from up to an hour's distance away, yet could avoid impersonality by assigning one teacher to every 20 students for counseling and other purposes.

These expanded high schools of the future could offer enriched programs, including entire schools-within-schools. With 150 to 200 districts operating along these lines at the high school level, most neighborhood elementary schools could be kept open, Mueller said. And the future could seem less shocking.

UNIVERSITY OF MINNESOTA
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MARCH 30, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

SPRING MUSIC SEASON
PLANNED AT U OF M

(FOR IMMEDIATE RELEASE)

More than 25 free, public on-campus events are planned this spring by the University of Minnesota music department on the Twin Cities campus.

The season will begin Wednesday (April 6) with a concert by the Faculty Brass Quintet at 8 p.m. in Scott Hall auditorium. The group, led by assistant professor David Baldwin on trumpet, will perform works by Verne Reynolds, J. S. Bach, Ludwig Maurer, Eugene Bozza and G. W. E. Friedrich.

Performing Thursday (April 7) at 8 p.m. in Scott Hall auditorium will be the University String Quartet. Their program includes works by Beethoven, Mendelssohn and Ravel. Members of the group are Lea Foli, concertmaster of the Minnesota Orchestra and professor of music at the University; Richard Massmann, professor of music and conductor of University Orchestras; John Tartaglia, associate principal violist for the Minnesota Orchestra and University assistant professor, and Robert Jamieson, principal cellist of the Minnesota Orchestra and instructor at the University.

Other major evening and Sunday events planned for the spring quarter are a performance by the University Wind Ensemble, Great Hall, Coffman Union, Sunday, April 24, 3 p.m.; University Symphony Band and University Percussion Ensemble, Northrop Auditorium, Sunday, May 1, 3 p.m.; Ruben Haugen, saxophone, and Charles Forsberg, piano, Scott Hall auditorium, Sunday, May 1, 7 p.m.; Shirley Thomson, violin, Scott Hall auditorium, Saturday, May 14, 8 p.m.; University Jazz Ensembles, Great Hall, Coffman Union, Sunday, May 15, 4 p.m.; University Chamber Orchestra, Scott Hall auditorium, Wednesday, May 18, 8 p.m.; Martha Hilley and Gwen Perun, duo pianists, Scott Hall auditorium, Saturday, May 21, 7:30 p.m.;

(MORE)

University Symphony Band II and University Woodwind Ensemble, Northrop Auditorium, Sunday, May 22, 4 p.m.; Concert Choir and Chamber Singers, West Bank auditorium, Monday, May 23, 8 p.m.; University Symphony Orchestra, St. Paul campus Student Center, Wednesday, May 25, 8 p.m.; University Symphony Orchestra, Northrop Auditorium, Thursday, May 26, 8 p.m., and University Wind Ensemble, Northrop Auditorium, Wednesday, June 1, 8 p.m..

Master classes and performances by visiting artists also are scheduled throughout the spring on weekdays. These events are designed primarily for students, but are open to the public.

University musical groups also will be performing at Walker Art Center, Orchestra Hall and at several outstate locations this spring.

Admission will be charged for Opera Workshop productions of "Sister Angelica" and "Words Written on the Window Pane" Wednesday and Friday, June 1 and 3, at 8 p.m. in Scott Hall auditorium.

-UNS-

(AO, 2, 29; B1; CO, 2; D2; E29)

UNIVERSITY OF MINNESOTA
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MARCH 30, 1977

NEWS PEOPLE: For further information
contact JEANNIE HANSON, 373-7517

U OF M SPRING SAMPLER OPEN

(FOR IMMEDIATE RELEASE)

Weather, government funding, archaeology, psychology, and fabric design are some of the subjects covered in the spring University Sampler series, now open for registration.

A series of separate lectures, each costs \$1 at the door (free to those over 62).

Members of the public may attend one, several, or all of the following lectures, which are scheduled between April 6 and June 1: Satire: The Muse With the Looking Glass; Who Gets the Money? Trends in Government Aid; Ginseng--The Root of Life; The Marxist Perspective; Have You Read the Clouds Today?;

Church-State Relations in the Soviet Union; Happily Married Till the Children Come? The Effects of Parenthood on the Husband-Wife Relationship; Digging In--The Excitement of a Biblical Excavation; Cicero: A Lawyer for All Ages; Self-Help, Psychology and Psychotherapy--Who Needs Them?

For more information, call Extension Classes at 373-3039.

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(AO;B1,8)

UNIVERSITY OF MINNESOTA
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MARCH 31, 1977

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NOTE TO RESEARCHERS:

Please call 373-7514, or send information to S-68 Morrill Hall, if you know of any research which will be shutting down due to lack of funds.

We are interested in doing a news feature on the types of research which will no longer be done or which must be cut back as a result of lack of support.

Of course, we are always interested in word of newsworthy research as well.

William R. Hafling, Ph.D.
University Science Writer

WRH/rc

UNIVERSITY OF MINNESOTA
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MARCH 31, 1977

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NEWS PEOPLE: For further information
contact JUDY VICK, 373-7515

**KINETIC SCULPTURE FEATURED
IN STUDIO ARTS FACULTY EXHIBIT**

(FOR IMMEDIATE RELEASE)

A kinetic sculpture which moves from the third floor balcony to the main lobby of Northrop Auditorium and creates a work of art on the lobby floor, will be featured in an exhibition of recent works by University of Minnesota studio arts faculty Wednesday, April 6, through Friday, May 6, in the University Gallery.

The work is the creation of assistant professor Guy Baldwin. Baldwin also is the creator of a musical sculpture recently installed on the West Bank campus of the University.

Oils and acrylics, charcoals, pastels, photographs, ceramics, collages, water-colors, sculptures, lithographs and intaglio prints will be included in the 63 works in the University Gallery exhibition.

Participating artists in addition to Baldwin are Mary Abbott, Karl Bethke, Linda Brooks, Victor Caglioti, Tom Cowette, Lynn Gray, Allen Downs, David Feinberg, Susan Lucey, Warren Mackenzie, Raymond Hendler, James Henkel, Curtis Hoard, Mary Lindquist, George Morrison, Malcolm Myers, Wayne Potratz, Zigmunds Priede, Lorna Ritz, William Roode, Tom Rose, Herman Rowan and Herman Somberg.

A public reception for the artists is set for Thursday, May 5, from 4 to 7 p.m. in the fourth floor galleries of Northrop Auditorium. The gallery is open to the public with no admission charge from 11 a.m. to 4 p.m. Monday, Wednesday and Friday; from 11 a.m. to 8 p.m. Tuesday and Thursday and from 2 to 5 p.m. Sunday.

-JNS-

(AO, 2, 31; B1; CO, 2; FO, 2; E31)

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MARCH 31, 1977

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378-1364

SMALL CELLS CREATE
LARGE CONTROVERSIES

(FOR IMMEDIATE RELEASE)

Biologist Robert Sinsheimer said Wednesday night that scientists have created new forms of life which may set in motion an entire evolutionary process beyond man's control.

Sinsheimer, chairman of the division of biology at California Institute of Technology, Pasadena, spoke on "recombinant DNA" to about 400 people at the University of Minnesota.

"The recombinant DNA technology brings us at one bound into a new domain with great potentials for both good and for harm--and all shrouded by our current ignorance," Sinsheimer said.

"This technology primarily involves the joining of DNA components--genes--from any source and the re-introduction of this compound back into living cells," he said.

DNA (deoxyribonucleic acid) is a compound in the nucleus of cells containing all of the genetic information that determines the characteristics of future generations of the cell.

Recombinant DNA research has made it possible for scientists to take genes from any organism in nature and cross them with any other organism, thus creating new forms of life which have never existed before, Sinsheimer said.

Sinsheimer and five University of Minnesota faculty members who commented on his talk listed the potential benefits of recombinant DNA research as new knowledge about cancer and molecular biology and the ability to produce vitamin C or insulin in more efficient ways.

Potential harm, they said, could result from the introduction of new, deadly bacteria for which there are no known antibiotics. And, since they have introduced the material into the cell genetically, it would begin its own evolutionary process, they said.

(MORE)

"We have become the makers of new forms of life that will evolve long after us in their own fashion," Sinsheimer said. "The performance of a single experiment could have consequences not yet known.

"The magnitude of our uncertainty reflects the magnitude of the scientific advance which these new techniques make possible. I believe science has not taken so large a step into the unknown since Rutherford began to split atoms," he said.

The scientists involved in recombinant DNA research have raised questions about the safety of the research and whether certain kinds of research should be allowed to continue at all.

The U.S. House Committee on Science and Technology began hearings this week on how recombinant DNA research should be controlled. One proposal has been to enact into law the National Institute of Health (NIH) guidelines, which address potential health problems of the research.

Sinsheimer said a federal regulatory body would be more effective at proposing guidelines for safety as the recombinant DNA technology changes. He also suggested that a presidential commission be established to measure public opinion on how certain kinds of research should be undertaken.

Scientists may have to compromise some of their freedom of inquiry to seek public reactions to this research because of the "uniquely irreversible character of this enterprise," Sinsheimer said.

Irwin Rubenstein, professor of genetics and cell biology, said that the University of Minnesota may begin recombinant DNA research in the next six months on corn and yeast.

"Suppose we had discovered fire and somebody said 'What about the arsonists? What about forest fires? What about house fires and people being burned to death?' Yet fire is a useful tool which can help us improve ourselves," Rubenstein said.

"Scientists every day at the University of Minnesota are dealing with very deadly pathogens to learn how to better treat human illnesses," he said. "Dangerous as knowledge has seemed, it appears to me that the lack of knowledge has been more dangerous."

(MORE)

The new knowledge has given biologists enormous power, Sinsheimer said, which should be shared with the public and measures should be taken to prevent its abuse.

"The atomic bomb was the first breach in the faith that science was a beneficent force for the improvement of the future of mankind. My concern is that genetic engineering not become the second," he said.

-UNS-

(AO,22,23,24;B1,5;CO,5;DO,5;E22,23,24;G31)

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UNIVERSITY OF MINNESOTA, MINNEAPOLIS AND ST. PAUL CAMPUS EVENTS
April 3-9

- Sun., April 3---Jaques Gallery: Watercolors and Scratchboards by Dana Gardner. Bell Museum of Natural History. 9 a.m.-5 p.m. Mon.-Sat., 9 a.m.-9 p.m. Wed., 2-5 p.m. Sun. Through April 10. Free.
- Mon., April 4---St. Paul Student Center Galleries: Batiks by Carol Martin, North Star Gallery; "Parade," photographs by Marjorie Sucoff, Rouser Room Gallery. 8 a.m.-10 p.m. Mon.-Sat., noon-10 p.m. Sun. Through April 29. Free.
- Mon., April 4---Coffman Gallery: "Clay Sculpture, Fiber, Fabric Exhibit" by Bryan, Thimmisch, Nelson-Bryan, Gallery I, through April 21; Photojournalism Student Exhibit, Gallery II, through April 14. 10 a.m.-4 p.m. Mon.-Fri. Free.
- Mon., April 4---Lecture: "Labor Movement During the 1930s" by Mr. Genis, AFL-CIO-CLC. 337 Coffman Union. 11:15 a.m. Free.
- Mon., April 4---Noon Cartoons: "Roadrunner" and "Flash Gordon." Theater-lecture hall, Coffman Union. 11:15 a.m. and 12:10 p.m. 25¢.
- Mon., April 4---Lecture: "Post Conceptual Tendencies" by James Collins. 125 Auditorium Classroom Bldg. 7:30 p.m. Free.
- Mon., April 4---Recital: Alan Mandel, piano. Scott Hall aud. 8 p.m. Free.
- Tues., April 5---Concert: Trio Flamenco. North Star Ballroom, St. Paul Student Center. Noon. Free.
- Tues., April 5---Wilderness Living: "Survival Skills" by Tim Kneeland. McNeal Hall aud. 7 p.m. \$1.50.
- Tues., April 5---Lecture: "James Joyce's Politics" by Richard Ellmann. 175 Auditorium Classroom Bldg. 8 p.m. Free.
- Wed., April 5---Bike Show. Great Hall, Coffman Union. 10 a.m.-2 p.m. Free.
- Wed., April 5---Angles of Vision Film: "Modern Times." Theater-lecture hall, Coffman Union. 11:15 a.m. Free.
- Wed., April 6---Concert: Rick and Sandi Epping. Terrace Lounge, St. Paul Student Center. Noon. Free.
- Wed., April 6---Concert: Faculty Brass Quintet. Scott Hall aud. 8 p.m. Free.

(OVER)

Thurs., April 7---Concert: University String Quartet. Scott Hall aud. 8 p.m.
Free.

Fri., April 8---Concert: Ann Reed and Judy Foster. The Whole Coffeehouse, Coffman
Union. Noon. Free.

Fri., April 8---The Whole Coffeehouse: Kenny Rankin. Coffman Union. Doors open
8:30 p.m. \$3.50. Tickets on sale at MSA, TOO and Positively 4th Street.

Sat., April 9---The Whole Coffeehouse: Kenny Rankin. Coffman Union. Doors open
8:30 p.m. \$3.50. Tickets on sale at MSA, TOO and Positively 4th Street.

-UNS-

(A0;B1;F2)