

The University of Minnesota Duluth

BRIDGE

Winter

For Alumni and Friends of UMD

1990-91



Richard Jacobson, an industrial technology major, was only one of several hundred students who received their degrees at UMD's Fall Commencement on November 18 in Romano Gymnasium. Their alma mater received high rankings for quality and educational value this fall in two national magazines. See related story on page 2.

Keeping Up • The Winter Bridge

U.S. News: UMD ninth best regional college in Midwest

For the second time this fall, the national spotlight has shone on UMD's high quality programs.

This time, it was in *U.S. News and World Report's* "America's Best Colleges," published on Oct. 15, 1990, which ranked UMD ninth out of 132 "regional universities" in the Midwest. The magazine hailed a return to teaching as higher education's primary mission and profiled schools that have achieved excellence by keeping their programs focused.

"We're delighted that two national magazines have recognized UMD's unique contribution to higher education in the region, all in about a month's time," said UMD Chancellor Lawrence Ianni. "It's a testament to the hard work and dedication of the entire university community."

UMD was named one of the "best bargains in American higher education" by *Money* magazine in its *Money Guide* supplement earlier this fall. *Money* placed UMD 49th on its list of 100 public universities in the nation offering the best value of education for the money spent.

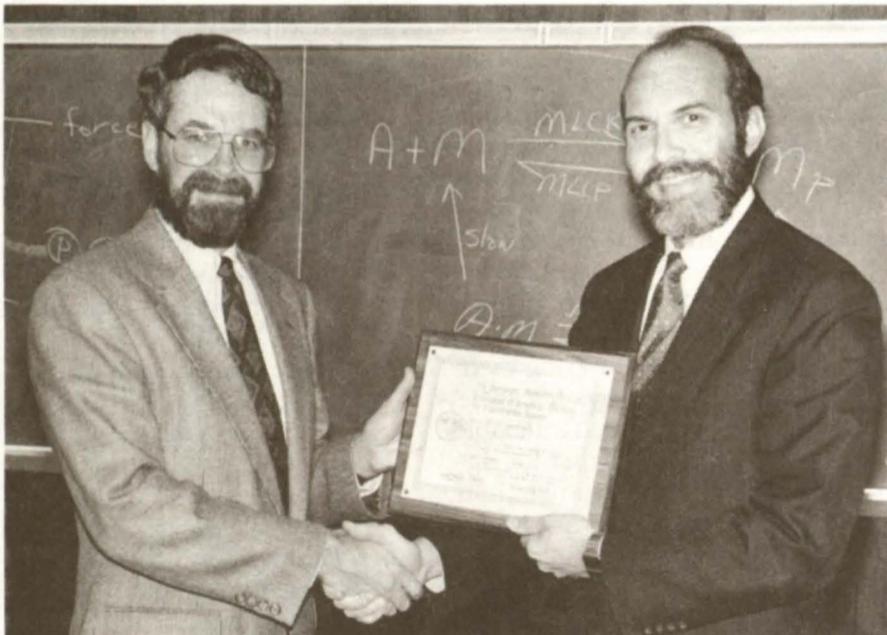
In all, *U.S. News and World Report* ranked 1,374 colleges and universities in five areas: selectivity, faculty resources, academic reputation, overall financial resources and student satisfaction.



The magazine lauded UMD and similar schools for providing "both the kinds of professional programs found at large state universities and the intimate setting of a liberal arts college."

Other categories in the magazine's ratings included "National Universities," which was topped by traditional academic heavyweights like Harvard, Stanford and Yale, and "National Liberal Arts Colleges," among them Minnesota's Carleton College, which ranked 10th.

The Twin Cities campus was ranked in the second quartile of national universities and liberal arts colleges that didn't make the top 25; Morris was not included in the articles.



School of Medicine wins prestigious Burroughs Award

Dr. James T. Stull, left, and Ronald Franks, dean of the UMD School of Medicine, display the school's Burroughs-Wellcome Award, earned for research on cardiac and blood vessel contraction. The award brought Stull, a cardiovascular research pioneer from the University of Texas, to UMD in October to consult with local scientists and physicians on their work.

NRRI receives \$996,552 contract from National Institutes of Health

Scientists at the UMD Natural Resources Research Institute have received a \$996,552 contract from the U.S. National Institutes of Health to provide a computer database and software for developing anticonvulsant drugs for treating epilepsy.

The database will organize test results on 14,000 chemicals that already have been screened, with the software analyzing the database to develop relationships between the structure of the chemicals and their effectiveness as anticonvulsant drugs. These structure activity relationships will be used for guiding the National Institutes of Health in their drug-testing program.

The three-year contract is a direct spinoff from research sponsored by the U.S. Environmental Protection Agency through its Environmental Research Laboratory in Duluth. The research has successfully developed structure activity relationships for predicting the aquatic toxicity of chemicals.

"This exciting project has extremely far-reaching implications," according to Michael J. Lalich, NRRI director. "This project confirms and will strengthen NRRI's expertise as a world center for developing

structure-activity relationships for predicting environmental effects of chemicals. This could also lead to the establishment of spinoff regional industries for orphan drug research and development."

The principal investigator for the project, "Structure Activity Relationships (SAR) for Anticonvulsant Drug Development," is Subhash Basak, research associate for the NRRI Center for Water and the Environment. Co-principal investigators are Gerald J. Niemi, director of the NRRI Center for Water and the Environment; Robert S. Hunter, supervisory application programmer for the NRRI Center for Water and the Environment; and Lester R. Drewes, professor and head of the UMD Department of Biochemistry.

Project collaborators are Timothy R. Colburn, UMD assistant professor of computer science; Mark Luker, director of UMD Information Services; Ronald R. Regal, UMD associate professor of mathematics and statistics; and Ronald J. Sawchuk, professor of pharmaceuticals on the Twin Cities campus. About four new employees will also be hired at NRRI and UMD to work on the project.

UMD fall enrollment up by 100 students

Fall enrollment at UMD was up from 7,824 last year to 7,924, an increase of about 1.3 percent.

This fall's enrollment is 100 students more than last year, led by a 17.2 percent increase in the College of Science and Engineering, which grew from 1,625 to 1,904 students.

The College of Liberal Arts remains the largest on campus, with an enrollment of 2,451, down from 2,517 last year.

"We're really pleased we came in ahead of projections," said Gerald Allen, admissions director. Allen said the figures reflect strong student retainment, with more returning students than ever before.

The total fall quarter enrollment at the University of Minnesota's five campuses is about 53,294, compared with last year's 53,339.

Both Duluth and Crookston had enrollment increases, while Morris and Waseca had decreases.

The University of Minnesota-Duluth

BRIDGE

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The University of Minnesota is an equal opportunity educator and employer.

JONATHAN MAPS

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Mapping superconductors

by Judy Holz

When Jonathan Maps joined UMD's physics department three years ago to do research on superconductivity, he began building a lab on a shoestring budget in a basement storage room. Today, the lab is home for one of the most sophisticated instruments on campus — a scanning tunneling microscope (STM) that examines atomic structures.

Maps has two labs in Marshall W. Alworth Hall; the one in the third-floor physics department has "more computing power." The superconductivity lab, affectionately dubbed by Maps "my dungeon downstairs," is located in the basement to cut down on building vibrations that might affect the STM measurements.

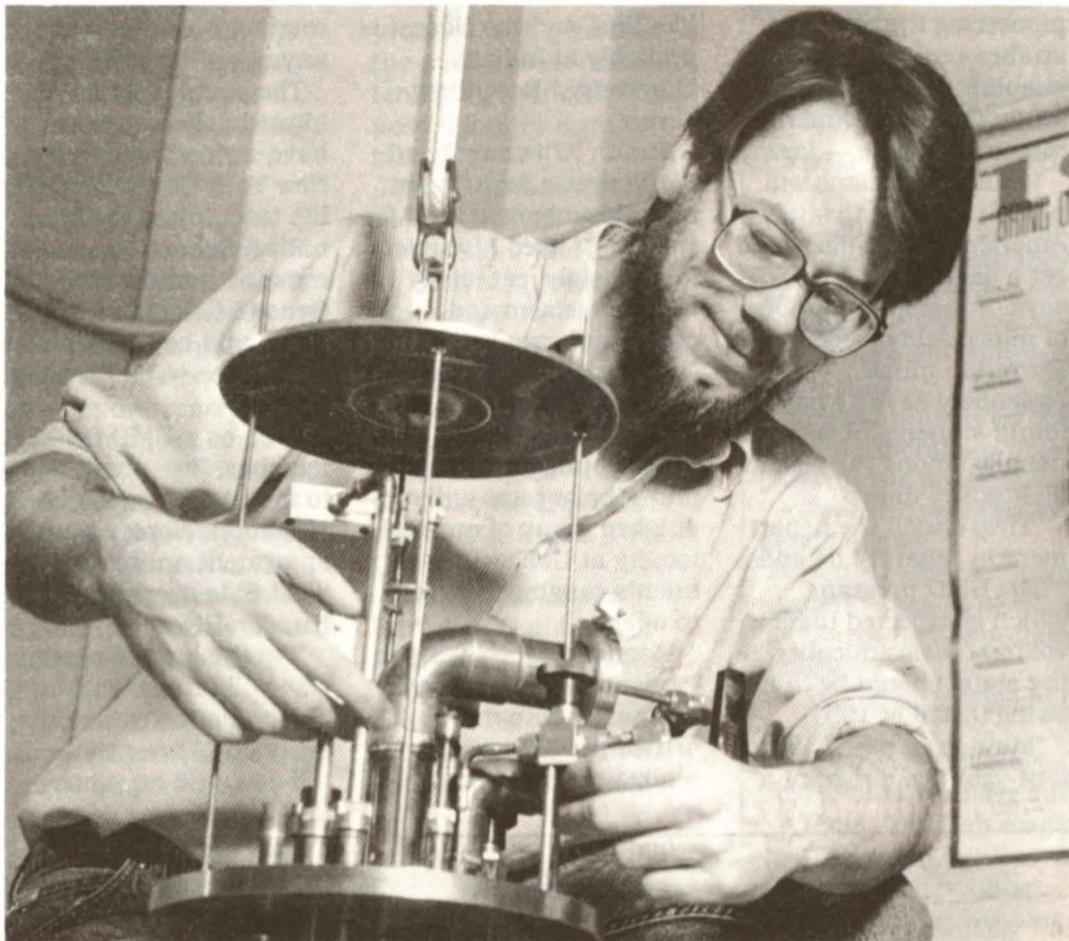
The STM lab was originally a storage space — with two electric outlets. "When I moved in, we emptied it all out and refilled it," says Maps.

The basement lab is a long narrow room with a high ceiling and cinder block walls. Near the entrance, the STM is poised above a wooden platform mounted on rubber doughnut rings. This layer sits on four pillars filled with sand to cut vibrations further. Centered under the microscope, in the middle of the "kitty litter pillars," is a giant thermos bottle filled with liquid helium.

Rows of copper pipes and tubing for refrigeration cover the back wall. To one side, nearly blocking the door, is a large metal box the size of a washing machine. "It's a leak detector," he says. "They're standard equipment in low-temperature labs."

Rows of wrenches, screwdrivers, and drill bits are neatly mounted on the wall next to the door. The rest of the crowded lab is filled with computers recording data, a tabletop version of the STM, a desk and book-filled shelves. Narrow stairs lead to a small loft, "a good place to hide," Maps jokes.

"He's working on the cutting edge of research," says Tim Holst, acting associate dean of UMD's



Jonathan Maps, assistant physics professor, works in the coldest part of the Northland in his superconductivity lab in the basement of Marshall W. Alworth Hall. He built his own scanning tunneling microscope to make measurements and view images of atoms at hundreds of degrees below zero.

College of Science and Engineering. "I was amazed that we have a scanning tunneling microscope on campus. We're actually looking at images of atoms."

A native of Long Branch, N.J., Maps completed his undergraduate work at Rensselaer Polytechnic Institute and obtained his Ph.D. in physics at the University of Massachusetts in Amherst. He went on to a four-year post-doctoral research position at the University of Minnesota-Twin Cities campus, where he began working with superconductors, materials that are cooled to such low temperatures that they lose all electrical resistance. "There are many practical applications," says Maps. "For instance, the magnets used in Magnetic Resonance Imaging are all made of superconducting materials."

But Maps isn't necessarily interested in practical results, nor is he working with the usual superconductors. "I'm interested in the heavy fermions, which are compounds whose electrons behave as

though they're fat and slow," he explains. "They have to be cooled much more than the 'popular' superconductors — within a tenth of a degree of absolute zero, which is approximately 459 degrees below 0 Fahrenheit. So we're talking about generating *really* low temperatures; that makes the heavy fermions much more difficult to work with than ordinary superconductors."

Building a superconductivity lab involves two main tasks. The first is the ability to generate low temperatures. To do that, "you immerse the samples in liquid helium that's inside a giant thermos," says Maps. That's a costly and time-consuming job; Maps spent most of one summer installing the copper piping and tubing for refrigeration in his lab.

The second task is to actually measure something, and that's where the scanning tunneling microscope comes in. The device involves a very fine probe that examines the surface of the superconducting material — from a distance of one or two atomic diameters. "It's

close to the sample surface," says Maps. "We're actually imaging the topography of the surface by watching a tiny electric current that flows between probe and sample."

In STM labs, distances tend to be relative. "We can look at much larger areas of the surface too, maybe up to one micron" he says. A micron, however, is about 40 millionths of an inch.

Why go to all the trouble of building a scanning tunneling microscope instead of buying one? "You can buy them, but a cheap one goes for \$70,000, and you can't use them at low temperatures," says Maps, who started building an STM during his post-doctoral stint in Minneapolis.

"There are guidelines in the literature," he explains. "You design it and get it machined up. It's actually cheaper to build the STM than to do the low-temperature setup. For a few thousand dollars, you can put one together. Of course, it's all computer-controlled; some of the electronics to control the microscope are store-bought, but most

were designed and built here. And then you have to write the software."

One of Maps' students wrote the software for color images of atomic structures. Other students work on different tasks: trying to develop alternate ways to position the samples by remote control, or attempting to grow clusters of a superconducting material like lead on a surface of silver, which is not a superconductor.

The undergraduate students are funded by Honors stipends or grants from UROP, the university-wide Undergraduate Research Opportunities Program. "Because we're a small department and don't have a lot of graduate students, there's room for undergrads to do research," says Tom Jordan, head of the physics department.

"Maps is doing the sort of research that keeps a faculty member at the leading edge of the field. This kind of research gives students as well as faculty a chance to really see what they can do."

"They're doing something nobody's done before. They have a chance to make a new contribution. It's a wonderful potential for students to sense in themselves," Jordan says. "At the same time, students are learning practical skills — handling complex instruments, electronics, computers. It's very valuable job training."

Despite his intense concentration on research, Maps teaches, advises, and serves as faculty advisor to the department's Physics Club. In early December, he presented a Sigma Xi lecture, "A Closer Look: The Scanning Tunneling Microscope and Surfaces."

Maps is modest about his accomplishments. "Once you have the system working, and you get it cold, it's like a factory," he says. "You just slap in your sample of interest, make measurements, and go on to the next sample."

Judy Holz is editor for the College of Science and Engineering.

CHRIS ROSENBERG

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The University of Minnesota Duluth Bridge

Musician brings jazz program to UMD

by Doris Pride

Musician Chris Rosenberg had a real awakening the first time he went to New York's Harlem.

"Initially, I was the outsider, the one who was ostracized because I was different," says Rosenberg, who had gone there for a rehearsal with jazz composer and saxophonist Ornette Coleman.

An internationally renowned black musician, Coleman warned Rosenberg that many people still believe it "takes a black person to be a real jazz musician."

Rosenberg spent seven years in New York City proving them wrong, playing guitar worldwide with Ornette Coleman's septet, Prime Time. The group was rated by *Down Beat* magazine as the Best Electric Jazz Group for 1990.

Coleman, who became a musical mentor to Rosenberg, is considered the father of free jazz, says Rosenberg.

This fall, Rosenberg was recruited to spearhead a jazz program in UMD's Department of Music. A native of Austin, Minn., he says, "I'm proud to be a kid from the cornfields of Minnesota — kids from here can do anything they want."

With a bachelor's degree in hand from the Twin Cities campus in 1983, Rosenberg went after his master's degree from the Manhattan School of Music, where he subsequently joined the faculty.

"New York is just a great place for artists," he says with enthusiasm. "One thing it taught me was that it's too easy to think about the world as a place within the boundaries of your hometown."

It also opened his eyes to the origins of jazz, his first musical love. "Jazz is a gift from black Americans — if it weren't for black culture in our country, American music wouldn't be nearly as powerful as it is," says Rosenberg.

That's why Rosenberg is

pioneering the new jazz studies program at UMD, enabling students to study their own, American musical heritage — jazz.

"Young musicians will be able to come to study American music (jazz) and get a degree in it," he says. Although a number of music schools focus on European music, Rosenberg says he has found students of jazz are usually among the best at all kinds of music.

"They enrich the department in general," he adds.

The UMD program, which is expected to fill a void in music education in the state, should be in full swing by fall of 1991.

"Minnesota has no other four-year jazz program

like this, and the closest is probably at Indiana University," Rosenberg says.

Judith Kritzmire, head of the music department, says Rosenberg is ideal for the job. "I liked his style immediately, especially his enthusiasm and curiosity," says Kritzmire. "I think he felt a personal connection with the department, too."

The young jazz musician and scholar joins a distinguished group of musical faculty at UMD with talents ranging from jazz to opera.

Married to actress Erica Paulson, Rosenberg says he's ready for a more settled life. "We don't really want to go on the

road for a year at a time anymore," he says.

The couple met in Minneapolis and both have successful careers in New York City. Along with his teaching at the Manhattan School, Rosenberg remains a member of Ornette Coleman's Prime Time, and he just wrapped up a three-week European tour.

Even as a UMD faculty member, Rosenberg hopes to maintain his New York affiliation, along with his apartment on the Upper West Side overlooking the Hudson River.

"I'm the kind of person who will probably never be able to do the same thing every day," he says.

If he could have one

musical wish fulfilled, Rosenberg would like to see music take its rightful place in American culture.

"Music in our culture isn't considered as important as it is in other parts of the world," he says. "I think it's important to raise some consciousness here. We've got an incredibly rich musical tradition to tap in this country."

For Rosenberg, raising consciousness actually began at home. "It's only in the past few years that my parents have come around on this — now they actually tell people what I do for a living."

Doris Pride is director of Media Relations in the External Relations office.



Chris Rosenberg, UMD's new jazz studies director, has traveled from the cornfields of Austin, Minn., to New York City's avant garde pursuing the music he loves. He also performs in free jazz pioneer Ornette Coleman's septet, Prime Time, which won a *Down Beat* magazine poll for Best Electric Jazz Group for 1990. The UMD jazz program, which is expected to fill a void in music education in the state, should be in full swing by fall of 1991.

Researchers examine gambling behavior

by Doris Pride

Gambling behaviors among adults, adolescents and pull-tab users were highlighted in the results of the first three studies from the Center for Addiction Studies at UMD.

"As we enter the age of increasing availability of gambling, these studies serve as baseline information — an initial measurement of what's happening in gambling behaviors," said J. Clark Laudergeran, director of the Center for Addiction Studies. Laudergeran said the studies are in response to a legislative mandate to the Minnesota Department of Human Services, Division of Mental Health, to provide funding for programming and research to identify those at highest risk.

He says a primary question the studies hope to answer is, does an increase in availability of gambling opportunity

result in an increase in the number of persons experiencing problems resulting from gambling or exhibiting compulsive gambling behavior?

In the "Adult Survey of Minnesota Gambling Behavior, A Benchmark, 1990," researchers found that males, non-whites and individuals under age 34 were overrepresented among problem gamblers and among potential and probable pathological gamblers. Women constituted 47 percent of the problem gamblers, but accounted for only a small portion of pathological gamblers.

The sample of 1,251 respondents showed that nearly 55 percent were gamblers with no problem, 7 percent were problem gamblers, and a total of 1.5 percent were identified as probable or potential pathological gamblers.

The study also indicated that the greater the

problem with gambling, the more the respondents tended to spend on Minnesota lottery scratch tabs.

Principal researchers for the study were Laudergeran and James M. Schaefer, associate director of the Center for Addiction Studies at UMD, along with Karla Eckhoff of UMD and Phyllis L. Pirie, Division of Epidemiology in the School of Public Health, University of Minnesota, Twin Cities.

In the "Adolescent Survey of Gambling Behavior in Minnesota," 1,094 Minnesota youth ages 15-18 were surveyed in May, just prior to the start of the Minnesota lottery.

Nearly 90 percent had gambled at least once, on games ranging from cards and bingo to scratch tabs, pull tabs and sports events.

Three distinct groups

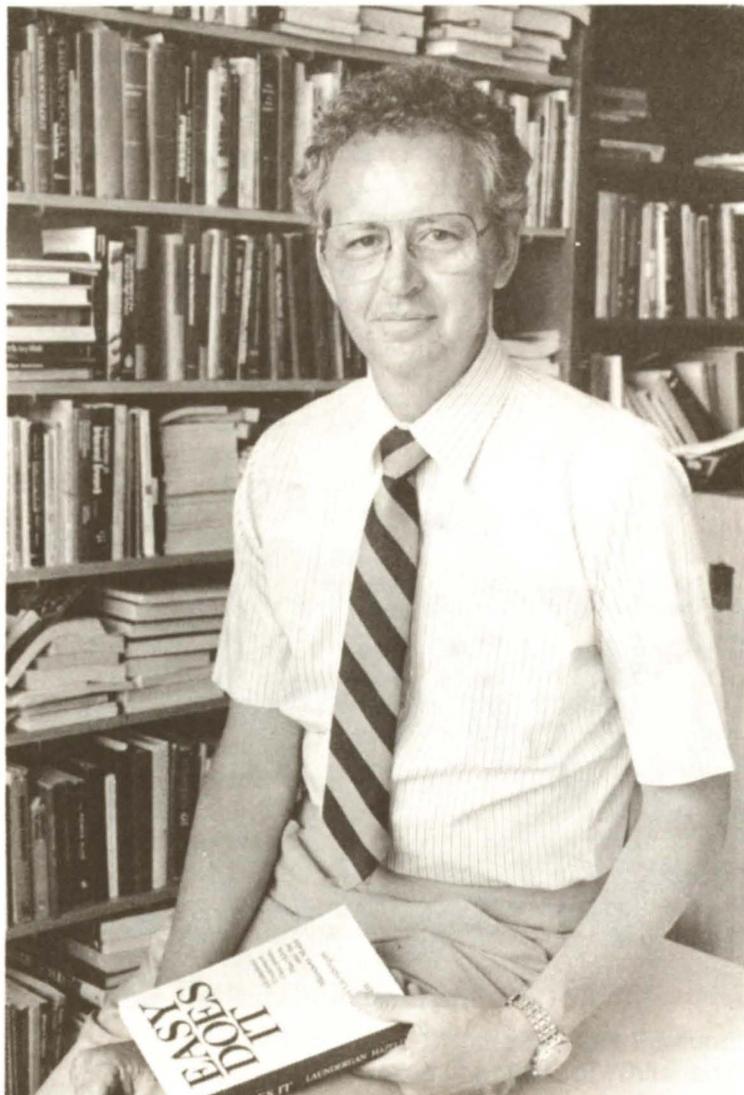
Pull tab magic: From social gambling to addiction?

Although most pull-tab players are responsible and don't bet more than they can afford to lose, some consistently spend more than they should — often everything they have. Researchers call these compulsive or problem gamblers.

Investigators James M. Schaefer and Mikal Aasved witnessed numerous clues or "tip-offs" that may suggest potential problem gambling among pull-tab players. The possible tip-offs include:

- Repeated winning and losing over an extended period of play.
- Betting after a big win. The chances of hitting big winners "back to back" are poor.
- Borrowing. Especially after losing all one's own money.
- Asking directions to the nearest automatic teller machine.
- Vicarious gambling — watching others open tickets after running out of money.
- Using "pull tab magic" to manipulate a win.
- "I've got to quit" — expressing a desire to quit or cut back on gambling.
- Treating big-winning tickets as casually as small winners.
- Playing loose change, after spending all one's folding money.

J. Clark Laudergeran, director of UMD's Center for Addiction Studies, was one of the principal researchers in a study on gambling behavior among Minnesota adults, adolescents and pull-tab users. Laudergeran and others are looking at the growth of legalized gambling in the state and its connection to addictive gambling behaviors.



were identified, including No Problem (73.9 percent), At Risk (19.9 percent) and Problem (6.3 percent). Problem gamblers were found to be predominantly male residents of metro areas who spent from \$100-200 in the past year on gambling.

The three psychosocial factors highly associated with the problem group included engaging in illegal activities, regular drug use, and having one parent who gambles.

In addition, problem gamblers are also more likely to gamble for social and psychological benefits — to feel better around people and to feel less shy, along with gambling to cope with problems or because of loneliness or depression.

Principal researchers were Ken C. Winters, Randy Stinchfield and Jayne Fulkerson, all affiliated with the Center for Adolescent Substance Abuse, Twin Cities campus.

In the study, "Minnesota Slots'— An Observa-

tional Study of Pull Tab Gambling," researchers James M. Schaefer and Mikal Aasved actually observed pull tab games as they were being played in bars and clubs throughout the state.

"The nature of pull tab playing has an immediate, short-term random reinforcement pattern that probably encourages people playing it to addiction," says Schaefer.

The study recommends that some pull tab profits be diverted to train gambling dealers and managers on how to effectively deal with problem gamblers; that gambling help "hot lines" be conspicuously posted; and that public awareness/prevention education be made available on gambling.

Laudergeran said the studies are the first of their kind in the state to deal exclusively with gambling behaviors.

Doris Pride is director of Media Relations in the External Relations office.

Sharing Lake Superior history through new shipwreck book, tape

by Tom Wilkowske

Julius F. "Fred" Wolff Jr. grew up gazing out at Lake Superior's blue expanse from his East End home. As he watched the ships pass, he had no idea what excellent training he was getting.

Decades later, Wolff, professor emeritus of political science at UMD, is the recognized "dean of Lake Superior shipwreck historians," a title few can quibble with after his more than 30 years of painstaking research on the subject.

It's easy to see how Wolff became interested in Lake Superior shipwrecks. His mother's family came to the region by ship in 1866. His mother was an office secretary for the James Pickands Co. at Marquette, Mich., and the Oliver Iron Mining Co. in Duluth, and rode ore boats many times. As a youngster, she also witnessed the daring 1895 shipwreck rescue in Marquette and spun yarns about it for her children.

As a boy growing up on Duluth's East End, Wolff could see the ships every day passing before the windows of Holy

Rosary Parochial School. He relates in the preface of his newly revised and expanded book, *Lake Superior Shipwrecks*: "Every vessel entering the Duluth port passed in full view of the first grade classroom, and for a couple of days I bounced up every time a ship whistled. In fact, my first academic penalty came on the third day when my teacher sentenced me to stand at the window and watch ships until my legs were tired."

But that didn't deter his interest in ships outside of school. "I used to sit up on a big rock knob by the cathedral and I could see everything passing by," he said. He soon learned to identify Oliver Iron Mining ships, but his formal study of shipping didn't start until much later, after some diversions.

In his later teenage and young adult years, Wolff became interested in natural resources and the outdoors. After earning a bachelor's degree from Notre Dame, he worked on the Iron Range as a management trainee for U.S. Steel. The philosophy then, he recalls, was for the



Julius F. "Fred" Wolff

college boys to get their hands dirty along with the workers — even the son of the firm's chief mining engineer. So down in the mines Wolff went to dig ore, and in his spare time, he explored the outdoors.

After World War II, Wolff did his doctoral research at the University of Minnesota on the history of Minnesota's natural resources conservation movement. He

earned his doctorate and joined the UMD political science faculty in 1949.

In 1956, Wolff was asked to speak on Lake Superior shipwrecks on short notice at the St. Louis County Historical Society banquet. The university's graduate school, after learning that such shipwrecks hadn't been seriously studied, awarded Wolff a small subsidy for him to continue.

After numerous shipwreck articles in regional and historical publications, Wolff published a book in 1979, *Shipwrecks of Lake Superior*. But only 1,000 copies were printed, and it sold out in about a month. Then, a few years ago, the Canal Park Marine Museum and Lake Superior Port Cities, Inc., publisher of *Lake Superior Magazine*, became interested in republishing the book. It finally came out in June.

"This is a first-rate deal," Wolff says, crediting publisher James R. Marshall for investing the money and expertise to revise and expand Wolff's first version. Wolff's 304-page, large format book covers hundreds of wrecks, from the sinking of a sail-equipped Montreal canoe on Aug. 26, 1816, to the grounding of the U.S. Coast Guard cutter Mesquite on Dec. 4, 1989.

He also gives generous praise to contributing editor Thom Holden, who made some additions on shipwrecks prior to 1950 and wrote the entire section after

1980, to Patrick Labadie (both are with the Canal Park Marine Museum) and UMD photographer Ken Moran, who rendered hundreds of photographs from historic negatives, slides and prints of varying degrees of quality.

Readers must like it, too. In the months since its June release, "Sales are in the thousands," Wolff says, not bad for a small press. "People have been interested in this subject of shipwrecks for years."

Over the years, there have been some doozies, Wolff says. Although early shipping records were sometimes sketchy, the shipwreck causing the worst loss of life appears to have been that of the 184-foot wooden sidewheeler, the Superior, which crashed into the Pictured Rocks of Michigan's Upper Peninsula on Oct. 29, 1856.

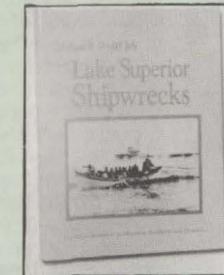
The ship "disintegrated in 15 minutes," Wolff writes. "Perhaps 18 badly bedraggled survivors managed to struggle to the rocks on debris and crawl from the reach of the waves. There, they watched Captain (Hiram J.) Jones, swimming valiantly in his buffalo coat, drown at the base of a cliff and eight crewmen, hanging on to the paddle wheels, drop one by one to their deaths." In all, about 50 lost their lives.

But one of the strangest wrecks happened much more recently, Wolff says. "A sinister reminder that Lake Superior could still be the Grim Reaper came on the

Book, tape proceeds help museum, Julius F. Wolff Scholarship Fund

Julius "Fred" Wolff Jr.'s newly revised and expanded book, *Lake Superior Shipwrecks*, was published in June by Lake Superior Port Cities Inc. and the Lake Superior Marine Museum Association Inc. The hardcover version is \$45, and softcover copies are \$34.95. A portion of proceeds are donated to the museum association. Copies are available in Duluth-area bookstores and from the publisher. Write to *Lake Superior Magazine*, P.O. Box 16417, Duluth, Minn., 55816-0417, or call 722-5002 in Duluth or (800) 635-0544 toll-free.

Wolff also can be heard narrating 14 dramatic tales of Lake Superior shipwrecks on a tape produced by KUMD-Duluth Public Radio. Proceeds of tape sales will be used for political science scholarships at UMD



through the Julius F. Wolff Scholarship Fund. Cost is \$12.95, and tapes are available from *Lake Superior Magazine*, area book and music stores, and the UMD Political Science Department. Alumni discounts are available through the Political Science Department. For more information, call (218) 726-7534.

evening of Nov. 10 (1975). The 729-foot Edmund Fitzgerald, flagship of the Columbia Transportation fleet, Oglebay Norton Co., mysteriously plunged to the bottom in the midst of an intense storm hovering over the eastern lake," he writes.

Wolff, like thousands of Minne-

sotans, remembers exactly what he was doing when the news flashed about the Fitzgerald. He — like thousands of Minnesotans — was watching a Vikings game with his father when the program was interrupted at 10:10 p.m. to call crew members of the Duluth-based Coast Guard cutter

Woodrush into service. Other ships and planes searched the area, but all 29 crew members drowned, probably instantly.

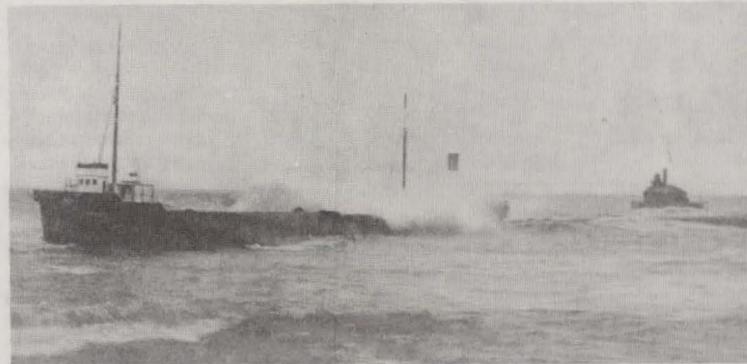
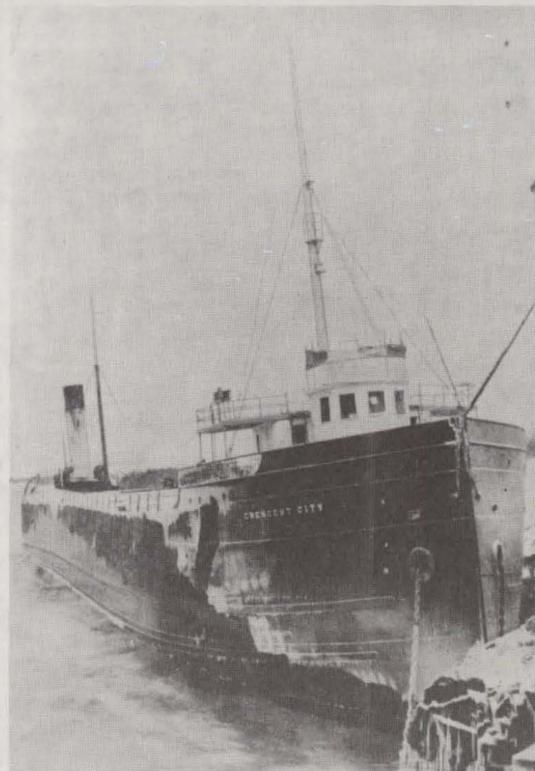
"There was no mayday, nothing to indicate anything was amiss," Wolff says. Two government inquiries, lawsuits, and immortalization in the Gordon Lightfoot song and the Steven Deitz play, *Ten November*, have all helped keep the Fitzgerald alive in the popular consciousness. Wolff says the artistic accounts are mostly accurate, with one exception. Lightfoot's "The Wreck of the Edmund Fitzgerald" contains many evocative lines, among them this one: "Superior it's said, never gives up her dead/When the gales of November come early."

Not exactly true, Wolff says. "Often in many lake catastrophes, at least a few bodies will surface," but not so with the Fitzgerald, Wolff says.

The book certainly has pure entertainment value for anyone who has peered out at the great lake and wondered what lies beneath. But Wolff says he hopes it serves another purpose, too. "It's sort of a testimonial to the lake transportation people," Wolff says. "We'd be nothing if we didn't have this port."

If we didn't have people like Wolff, it would be much harder to remember such important things.

Tom Wilkowske is publications editor in the External Relations office.



Mataafa Blow

In the "Mataafa Blow," a huge, vicious storm on November 27-28, 1905, several ships were wrecked. The 406-foot steel steamer *Crescent City*, left, was pushed 20 miles past her Two Harbors destination and virtually docked against a low cliff a mile west of the Duluth Pumping Station at Lakewood. Powerful seas cracked the vessel in two in shallow water, but the entire crew escaped safely. Some of the crew members of the *Maatafa*, above, were not as lucky. As Julius F. "Fred" Wolff writes: "The seas were ferocious and the visibility virtually zero ... the captain then ordered the *Mataafa* full steam ahead for the final run for safety (in Duluth harbor). Yet, just as he approached the entrance at 2:15 p.m., a giant wave hit, lifting the stern so high that the bow struck bottom, sending the *Mataafa* careening into the north pierhead."



Edmund Fitzgerald

On November 20, 1975, the 729-foot Edmund Fitzgerald went down in a ferocious storm about 17 miles northwest of Whitefish Point, Mich., after reporting taking on water. Twenty-nine men died. Its wreck became immortalized in a popular song and on the stage.

RAYMOND GIBSON

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The University of Minnesota Duluth Bridge

UMD's first provost

by Lucy Kragness

UMD looks a little different today to Raymond Gibson.

While serving as UMD's first provost, Gibson broke ground for the present main campus. When Gibson left UMD, the Science Building was open and work was just starting on the Physical Education Building. Forty years later, more than 40 buildings sit on the site Gibson envisioned as the perfect site for the growing campus.

Gibson, who has been writing his memoirs, was invited to return to UMD this fall by Jim Vileta, campus archivist. To help Vileta fill in the gap's in UMD's early years, Gibson spent several hours with him sharing an oral history of his time on campus.

When Gibson became president of Duluth State Teachers College in 1946, he was 36 years old and the college had an enrollment of 275. Four years later when Gibson left UMD as provost, he had laid the groundwork for the new 166-acre campus, had seen enrollment jump to 2,000 and had set up the organization plan for the university's divisions and departments. UMD was formed by the Legislature in 1947.

Gibson recalled that the Science Building, now the Chemistry Building, was dubbed "Gibson's White



Raymond Gibson

Elephant" by students who trudged through the snow to the lone structure on the hill. But the building wasn't alone for long, with the Physical Education Building started in 1949 and completed in 1953.

"The growth of the physical plant at UMD has been a phenomenal blessing for the whole region," Gibson said. "I was absolutely delighted that the Legislature appropriated the necessary funds and that various outside citizens chose to contribute private funds for the expansion of building projects."

Gibson's vision for UMD was carried out by John King, Raymond Darland and Robert Heller, all faculty members Gibson recruited who went on to serve as UMD provosts. More than doubling the faculty during his tenure, Gibson also recruited Valworth Plumb, Richard

Sielaff, Henry Ehlers, Arthur Smith, Thomas Chamberlin, Lyda C. Belthius and Chester Wood.

"I didn't expect the giants to stay 40 years," Gibson said. "What happened was a miracle."

In his memoirs, a copy of which is located at the UMD Library Archives, Gibson details his time at UMD. "If I have any reason for sharing the story, it is the hope that students and faculty and UMD in 1990 will realize what a great thing Minnesota has done for them," Gibson wrote. "You have one of the most unique and beautiful college campuses in America."

"One of my greatest joys has been the fact that three of my recruits collectively headed UMD for 37 years after I left. We were there to turn the first spade of dirt on the new campus and there when the dynamic plan had been completed."

After leaving UMD, Gibson directed the U.S. Education Mission to Peru. During his two years in Peru, Gibson helped develop rural schools and plan a modern teachers college. From 1952 to 1955 he was director of the educational missions branch for the U.S. Office of Education and helped recruit 300 American educators for service in foreign countries.

From 1955 to 1966,

Gibson was a professor of higher education at Indiana University. He went to Parsons College in Fairfield, Iowa, as provost for one year, before returning to Indiana University, where he retired from in 1976.

Gibson lives with his wife, Elaine, in Sun City,

Ariz. They have traveled extensively over the years, visiting 40 different countries and dozens of campuses.

"UMD is the most beautiful campus I've seen in the world," Gibson said.

Lucy Kragness is director of Alumni Relations in the External Relations office.



UMD's vast physical plant had its humble start with a spade of earth turned by Raymond Gibson, UMD's first provost. Gibson started as provost of Duluth State Teachers College in 1946. When he left in 1950, he had laid the groundwork for the new 166-acre campus, comprised today of more than 40 buildings.

Favorite videos of girls surprise UMD sociologist

Girls today may aspire to be company presidents, but their favorite video movies still portray females as followers, not leaders, says a UMD sociologist.

"With the exception of *Beaches*, there are very few strong female characters in the videos kids prefer to watch," says John Hamlin, associate professor of sociology who conducted a survey to find the favorite videos of students in grades 5, 8 and 12.

Hamlin, who has daughters in second and seventh grades, says mass media tends to give youth messages about what they can and can't be — something sociologists refer to as gender scripts.

He conducted the survey with 100 school-age students to discover what video movies were the most popular last year. The favorites — movies kids watched or rented most often — usually contained violence, were mostly male-dominated, and portrayed females primarily in support roles.

"I was surprised that there wasn't more of a balance between male and female roles," says Hamlin, whose research focuses on social control and feminist theory.

"Males were overwhelmingly portrayed as aggressive achievers and females were generally at the

sidelines — cheerleaders rather than athletes, followers rather than leaders," says Hamlin.

Fifth-grade girls, for example, chose *Earnest Goes to Camp* and *The Neverending Story* as favorites. Eighth-grade girls chose *Rainman* and *Top Gun*, while 12th-grade girls preferred *Breakfast Club* and *Beaches*.

Roger Rabbit and *Ghost Busters* were favorites of fifth-grade boys while eighth-graders chose *Coming to America* and *Johrny Be Good*. Boys who were high-school seniors preferred *Lethal Weapon* and *Bill and Ted's Excellent Adventure*.

"What most of these movies

have in common is that males are portrayed as aggressive, macho, and in-charge, while females are practically ignored," says Hamlin. "They may be there, like the female Ph.D. in *Lethal Weapon*, or the little girl in *Neverending Story*, but they don't really do anything."

Hamlin's survey also showed that fifth-graders tend to watch videos with their families while 12th-graders watch with friends.

"Parents can counter the stereotypical images by watching and discussing videos with their children and taping selected programs for later viewing."

CLASSNOTES



'29

Alice Bartlett Craswell has been researching her family's Bartlett-Viert-Dearborn ancestry. One of the most interesting discoveries on a trip to England was visiting Barttelots at Stopham (Pulborough) West Sussex, an enormous grant of property given to the Bartlett ancestors by William the Conqueror in 1066.

'56



Dillon

Thomas R. Dillon is chairman of the board and a principal shareholder in Prestige Care Inc., a health care company with 18 nursing homes in Oregon and Washington. He is married to the former Jean Soderquist, also of Duluth, with two sons, Rick, 33, and Bruce, 30, both involved in managing the nursing home group.

'57

Fred Lere was a candidate for state auditor in the recent fall elections. Lere is self-employed as an accountant and tax preparer, specializing in small business administration.

'61

A.J. "Buck" Anderson, of Minnetonka, Minn., is currently coordinating a gifted education program in three elementary schools in the Robbinsdale School District.

'63

Kathie (Lund) Tarnowski, of Mahtomedi, Minn., recently completed her 10th year as community organizer/executive director of the District 14 Community Council, a St. Paul neighborhood organization. She chairs the planning commission in the city of Mahtomedi, where she lives with her husband, **Tom**, also a '63 graduate, and their sons. She also is on the board of directors of the East Metro Women's Council, an organization working to build and operate supportive transitional housing for women adjacent to the Lakewood Community College in White Bear Lake.

'64

Dr. Thomas R. Owens, of Melbourne, Fla., has been traveling throughout the United States and Europe since retiring from the Okaloosa, Fla., County Public School system in 1984. He spends summers in North Carolina and winters in Melbourne. He received his doctor of education degree from Florida State University in 1980 and retired as a U.S. Air Force colonel in 1972. He lives with his wife, Lynne, and has five children and three grandchildren.

'66

Judy F. Anderson is the new coordinator for Early Childhood Family Education in Chisholm, Minn. ... **Merrilyn Greenwalt** of rural Ely is the new Assurance of Mastery teacher in the Tower-Soudan Schools ... **Jim Nardone**, of Grand Rapids, Minn., was elected board chair of the Minnesota State Arts Board this summer. He is a staff member of Itasca County Social Services, working in child protection and family counseling. He has been an English teacher, drama coach and participant in community theater productions with the Grand Rapids Players ... **Ted Renfors** is a new teacher in

the Hinckley, Minn., school system. He has taught in the Finlayson school system for the past 24 years.

'69

Marguerite Shavor will teach Chapter I and Assurance of Mastery in a two-thirds time position at East Central Junior High in Askov, Minn. She previously taught special education in Sandstone for 15 years. She and her husband, Don, have two children, Dean, 20, and Darren, 17 ... **Harold Swanson** is teaching English in grades 8, 11 and 12 at Hinckley/Finlayson High School.

'71

Mark Lundgren, of Chaska, Minn., was a candidate for Carver County auditor in fall elections. He works as an agent for casualty assurance at the Victoria, Minn., State Bank, and lives in Chaska with his wife, Victoria. They have three children: Eric, Marnie and Curtis.

'74

Sharon Tvedt will be involved with the media center and Chapter I programs at Hinckley Elementary School. Tvedt has

taught home economics for the past 12 years in Finlayson schools and also served the past two years as librarian and director of early childhood family education.

'76

The Rev. Dale Rosenbush is pastor of Great Lakes Gospel Church in Duluth. He also works one day a week at St. Mary's Hospital as an intensive care nurse.

'77

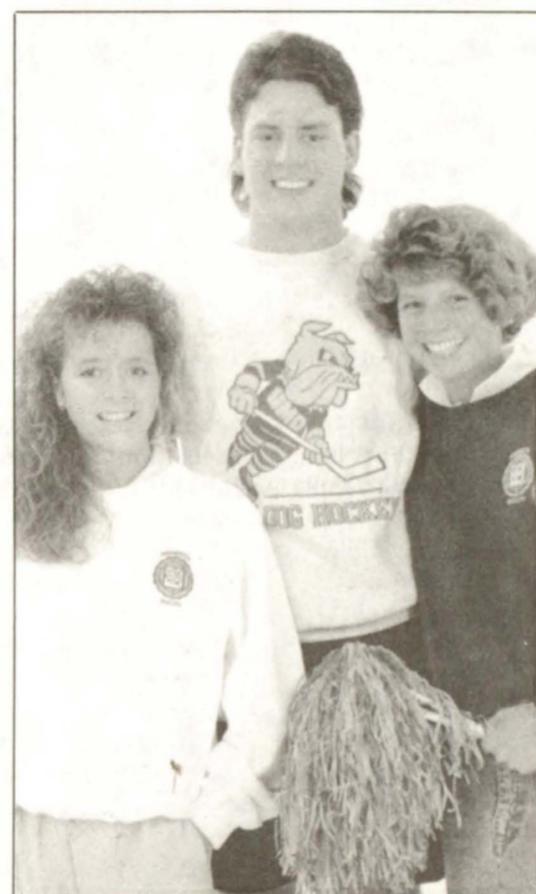
Curt Gullickson, of Cloquet, Minn., was a candidate for sheriff of Carlton County. Gullickson, who has been assistant chief in the Cloquet Police Department since 1979, is working on a master's degree ... **Jeffrey Harvey**, physics professor at the University of Chicago, was recently awarded a Sloan fellowship and Presidential Young Investigator Award from the National Science Foundation for his research in string theory ... **Catherine Guinlivan**, of Rapid City, S.D., has received a 1990 Presidential Award for Excellence in Science and Mathematics Teaching for her work at Vandenberg Middle School at Ellsworth Air Force Base. She teaches mathematics.

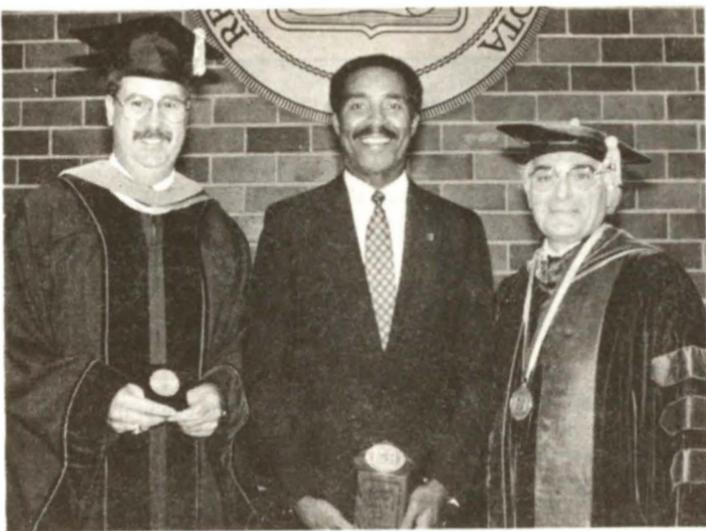
Great Gift Ideas

See your UMD Bulldog Shop mail-order catalog in this issue of the *Bridge* for gift ideas.

If you did not receive a catalog, please call the Bulldog Shop at 218-726-8520 and we will send you one today.

UMD Bulldog Shop
Fashions for the '90s . . .





Fall Commencement

Outgoing Board of Regent Chair Charles Casey, left, Harry Oden, UMD '63, and Chancellor Lawrence Ianni spoke at Fall 1990 Commencement, held on Nov. 18 in Romano Gymnasium. Oden, the commencement speaker, earned UMD's Distinguished Alumni Award for his work in Milwaukee public schools and community groups. Casey was given the Chancellor's Distinguished Service Award for his support of UMD during his board tenure.

She was invited to spend the week of Oct. 15 in Washington, D.C., with President Bush along with other award winners. Her school will receive \$7,500 that she may spend as she wishes.

'78

Anne Stuessy of Madison, Wis., has been named public relations manager for Parker Pen USA Ltd. of Janesville, Wis. Prior to joining Parker, she was director of communications for Southwest Health Center Inc. for seven years.

'79

James Monkman, Randolph Air Force Base, Texas, is a career communications and computer officer. He was recently assigned to the U.S.A.F. Recruiting Headquarters at Randolph Air Force Base as chief of the computer programming division. He also was recently promoted to major and awarded the Air Force Commendation Medal.

'80

Margaret Walker, of Faribault, Minn., began work this fall as a sixth grade teacher at the Consolidated Catholic Schools in Faribault.

'81

Scott McCulloch and his new wife, Melanie, live in Billings, Mont. McCulloch was elected on Nov. 6 to the Montana State House of Representatives ... **Angie McCuskey**, of Holyoke, Minn., is teaching kindergarten half time at Bruno Elementary School in Askov, Minn. McCuskey and her husband, Randy, have two children, Jason, 7, and Daisha, 5 ... **Jeff Tornquist** is the new director of transportation and safety for the Prior Lake-Savage, Minn., school district. Tornquist, his wife, Claudia, and their 2 1/2 year old son, Peter, live in Eden Prairie.

'82

Richard Blood is campus minister at the College of St. Scholastica. He earned a master of divinity from University of Dubuque Theological Seminary.

'83

Air Force Capt. **Richard J. Coccie**, of Minot, N.D., was recently transferred to Minot Air Force Base from Carswell Air Force Base in Texas. He will continue to fly the B-52H Stratofortress ... **Stephen Glick** of Minneapolis recently published *Little By Little the Pieces Add Up*, a daily meditation book for teenagers, in September. Glick holds a master's degree in educational psychology and a bachelor's degree in English ... **Erik Lundquist** and **Carol (Shurson) Lundquist** are both working for the City and Borough School District of Juneau, Alaska. Erik is a math/science teacher in the high school and Carol is managing a latch key program in an elementary school. They have two children, Olena, 5, and Carl, 3 ...

Steve Tarnowski is the director of development for the Catholic Diocese of Superior, Wis.

'84



Rauschenfels

Sally Rauschenfels has joined H.T. Klatzky and Associates, a Duluth advertising and public relations firm, as art director. She has been a production coordinator at Whole Person Associates/Pfeifer-Hamilton, a Duluth consultant and publisher, and a graphic artist with UMD's Outdoor Program ... **Lyle Salmi** is teaching painting and drawing at Illinois State University-Normal.

'85

Barbara (Johnson) Bretz was selected to appear in the first edition of the National Security Institute's 1990-91 *Who's Who in the Safety Profession* published this August. Bretz has been employed as safety director at Potlatch Corp in Brainerd, Minn., since graduating from UMD ... **David Downing** of St. Paul, Minn., has formed Downing Communications. The firm offers creative services for advertising and public relations, including writing, graphic design and electronic publishing ... **Peter Masterson** of Duluth is District Director of the Northland chapter of the Muscular Dystrophy Association, which includes

northern Minnesota, northern Wisconsin and part of the Upper Peninsula of Michigan. He also serves on the UMD Alumni Association Board of Directors ... **Grant Novacinski**, of St. Joseph, Minn., is teaching third grade in Sauk Rapids, Minn., at Pleasantview Elementary School.

'86

Kristen Aronson, of Hermosa Beach, Calif., is providing marketing and operations support to an international franchise ... **Michelle (Law) Hein** is currently working as a business sales representative for Sontrol Security of the Twin Cities. She recently married Jerome Hein of Stillwater, Minn., who is also in the security industry. They live in Eden Prairie, Minn. ... **Harry Lawrence** has been promoted to regional sales assistant for General Mills and is living in Eden Prairie, Minn. ... **Matthew Mattson** of Esko, Minn., has been working at Uppsala University in Uppsala, Sweden, in the Department of Organic Chemistry. He is doing collaborative organometallic research there as part of his studies at the University of Notre Dame, where he is a Ph.D. candidate and has received a Reilly Fellowship for 1990-91 ... **Cheryl (Kutzler) Novacinski** of St. Joseph, Minn., teaches first grade at Kennedy Elementary School in St. Joseph, Minn. ... **David Risdon** married Beverly Matuszak on July 1 in St. Phillips Church, Saginaw, Minn. They work in Duluth and live in Saginaw.

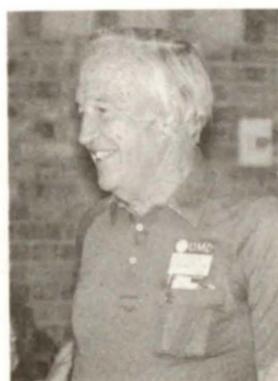
'87

Jean Grubb and Robert Stenberg were married in August in St. Michael's Catholic Church, Duluth. They live and work in

UMD Homecoming '90



David Tester, '60, above at left, and Alexis Jarrett, '70, were emcees at the Homecoming '90 Reunion Harvest Luncheon. Posing with them is Victor O'yek, M.D., Jarrett's husband. Also enjoying the reunion were James Nolan, '60, below at left, and Allan Clemetson, '50, at right.



Congratulations to these winners at the UMD Homecoming '90 Tailgate Party drawing.

- Ann Anderson, Duluth, Class of 1957, KUMD mug
- Diane Anderson, Duluth, UMD student, aerial photograph of UMD
- Marian Braff, Duluth, Homecoming '90 t-shirt
- Lance Cavanaugh, Duluth, UMD basketball tickets
- Margaret DeBoer, Duluth, aerial photograph of UMD
- Leslie Eskola, Duluth, Class of 1950, UMD basketball tickets
- Mike Fort, Duluth, Class of 1991, UMD sweatshirt
- Jim Good, Duluth, Class of 1976, aerial photograph of UMD
- Eric Groth, Duluth, UMD student, aerial photograph of UMD
- Eric Hylden, Duluth, Class of 1984, aerial photograph of UMD
- Jake Jaap, Duluth, Homecoming '90 t-shirt
- Ben Johnson, Duluth, aerial photograph of UMD
- John Kessler, Duluth, Class of 1983, Homecoming '90 t-shirt
- Tom Lawrence, Foley, Minn., Class of 1982, UMD sweatshirt
- Taire Lind, Duluth, aerial photograph of UMD
- Mike Louhi, Duluth, Class of 1988, aerial photograph of UMD
- Nate Malek, Duluth, UMD student, aerial photograph of UMD
- Jeff Matthews, Duluth, Class of 1991, Homecoming '90 t-shirt
- Karen Olson, Duluth, Class of 1988, Homecoming '90 t-shirt
- Wayde Preston, Duluth, Class of 1987, aerial photograph of UMD
- R. Schuelke, Duluth, Homecoming '90 t-shirt
- Farnam "Chick" Stone, Duluth, Class of 1952, KUMD mug
- Gregory Talus, Roseville, Class of 1986, Homecoming '90 t-shirt
- Murray Woodcock, Duluth, Class of 1990, aerial photograph of UMD
- M. Zeleny, Thunder Bay, Class of 1966, aerial photograph of UMD

the Mesa, Ariz., area ... **Charles Michael Hayes**, of Mounds View, Minn., was called into duty as a navigator for the 96th Tactical Airlift Squadron, Air Force Reserve, in August to support the Desert Shield operation in the Persian Gulf. Hayes also was promoted in August to lab supervisor at CTS Corporation, Connector Division, in New Hope, Minn. ... **Jill Rudnicki** and **Ross Abrams** were married on September 7, 1990. They met in the winter of 1986 at UMD where Jill worked on the Kirby Program Board and Ross worked with Outdoor Activities. After graduation they traveled through New Zealand, Australia, Italy, Austria, Germany, Denmark, Netherlands, Indonesia, Malaysia, Thailand, Nepal and India. They live in Minnetonka, Minn.

'88

Mary Tomasiak has accepted a new teaching position in the Green Bay, Wis., Public Schools. She will be working three quarters time with children

designated "at risk." She previously held a teaching position at Cumberland Schools.

'89

Ricky Clark, Lake County Commissioner, ran for a third term as District 5 commissioner this fall. He works for the Duluth, Missabe and Iron Range Railway as an ore loader ... **Chris Haidos** has accepted a teaching position with Tasis Hellenic International School in Athens, Greece. He will teach English at the high school, which has 40 nationalities represented on campus. He holds a master of arts degree in English education from UMD. His wife, Karin, will join him in December for the remainder of the school year.

'90

Paul Nisius of Duluth, a former UMD varsity cross country and track captain, is now the athletic director at Woodland Middle School in Duluth.

In Memory

Our sympathy is with the families and friends of the following alumni whose deaths have recently been reported to the UMD Alumni Office.

- 1919 Clara C. Fichtner
- 1922 Theresa Oberg Moen
- 1927 Neva McKeeby Kersting Wilson Erling Berg Ben Constantine
- 1930 Mae Dahl
- 1933 Maryanne F. Ahlin
- 1947 Ludwig F. Hiti
- 1948 Robert E. Livingston
- 1949 Paul L. Butler
- 1957 Paul A. Boman
- 1971 Fern F. Sadler
- 1974 Joyce Burtner

Unknown Class Year
Anthony "Teddy" Angellar

Orrick leaves \$10,000 to Alpha Nu Omega

The Alpha Nu Omega Fraternity Alumni Association has received a \$10,000 donation from late member Warren "Butch" Orrick, UMD Class of 1967, who died last summer.

Orrick named his fraternity as a 10 percent beneficiary of his life insurance policy. As a result, the \$10,000 will be added to the association's permanent fund to help generate annual scholarship funds for Alpha Nu members, according to Ron Nelson, treasurer of the fraternity's alumni association.

"I guess the main thing was that he felt strongly enough about the fraternity to leave us something," Nelson said. "He was very active all along, both as an active and as an alumnus."

The association may consider establishing a separate fund in Orrick's name at its annual meeting in February, Nelson said. The fraternity now gives annual awards of several hundred dollars each through the John L. Banks Memorial Scholarship and the Daryl B. Knodt Memorial Assistantship.



UMD students Julie Mello, left, Bryan Jansen, Rick Revolr and Amy Mueller rolled up sleeves and pants this fall to gather more than \$1,300 from the Miller Hill Mall's fountain.

Coins in Miller Hill fountain support UMD scholarship fund

When shoppers throw their coins into the fountain at Miller Hill Mall in Duluth, they'll be supporting area students with a scholarship fund to UMD.

Mall manager Jim DeArmond has designated that \$1,000 a year from the fountain of coins go to UMD's Chancellor's Merit scholarship fund. Owned by Melvin Simon and Associates, the Duluth Mall Inc. collects several thousand annually from coins tossed into the fountain.

"In the past we've donated the money

to charities and other non-profit organizations," DeArmond said. "We've decided a scholarship fund for a local student is a good investment for the whole city." DeArmond said the mall will continue to give coins to charity as well.

The donation will make the Miller Hill Mall the first area business to become a member of the new Corporate Partners program by pledging an annual contribution of \$1,000 or more, according to Jim Watt, UMD's assistant development director.

Share your news

Keep your former classmates informed on what you've been doing through Classnotes. Send the completed form and a black and white photograph, if available, to:

UMD Bridge
315 Darland Administration Building
Duluth, Minn. 55812

Name _____

Class _____

Address _____

City, State, Zip _____

Phone _____

Check here if this is a change of address _____

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ADDRESS CORRECTION REQUESTED

Men's Basketball

UMD vs. Wisconsin-Superior
December 12, 7:30 p.m., at Superior
UMD vs. Mankato State
December 15, 3 p.m., at UMD
UMD vs. Michigan Tech
December 18, 7:30 p.m., at UMD
North Dakota Rydell Classic
December 28-29, Grand Forks
UMD vs. Northern Michigan
January 3, 6 p.m., at Marquette
UMD vs. Michigan Tech
January 7, 6 p.m., at Houghton
UMD vs. Bemidji State
January 15, 7:30 p.m., at UMD
UMD vs. Winona State
January 17, 7:30 p.m., at UMD
UMD vs. Wisconsin-Parkside
January 20, 3 p.m., at UMD
UMD vs. Minnesota-Morris
January 25, 7:30 p.m., at Morris

UMD vs. Southwest State
January 26, 7:30 p.m., at Marshall
UMD vs. Northern State
February 1, 7:30 p.m., at UMD
UMD vs. Moorhead State
February 2, 7:30 p.m., at UMD
UMD vs. Bemidji State
February 5, 7:30 p.m., at Bemidji
UMD vs. Winona State
February 9, 7:30 p.m., at Winona
UMD vs. Minnesota-Morris
February 15, 7:30 p.m., at UMD
UMD vs. Southwest State
February 16, 7:30 p.m., at UMD
UMD vs. Northern State
February 22, 7:30 p.m., at Aberdeen
UMD vs. Moorhead State
February 23, 7:30 p.m., at Moorhead

Hockey

UMD vs. St. Cloud State
December 14-15, 7:35/7:05 p.m., at Duluth
UMD vs. Boston University
December 28-29, 7:35/7:05 p.m., at Duluth
UMD vs. Wisconsin
January 4-5, 7:05 p.m., at Madison
UMD vs. Northern Michigan
January 11-12, 7:35/7:05 p.m., at Duluth
UMD vs. Colorado College
January 18-19, 7:05 p.m., Colorado Springs
UMD vs. Michigan Tech
January 25-26, 7:35/7:05 p.m., at Duluth
UMD vs. Minnesota
February 1-2, 7:05 p.m., at Minneapolis
UMD vs. Alaska-Anchorage
February 8-9, 7:35/7:05 p.m., at Duluth
UMD vs. North Dakota
February 15-16, 8:05 p.m., at Grand Forks
UMD vs. Denver
February 22-23, 7:35/7:05 p.m., at Duluth

Wrestling

Cougar Invitational
December 15, 10 a.m., at Morris
UMD vs. Wisconsin-River Falls
December 17, 7 p.m., at River Falls
North Country Invitational
January 5, 9 a.m., at Moorhead
NIC Dual Meets
January 18, 6 p.m., at UMD
NIC Dual Meets
January 19, 10:30 a.m., at UMD
UMD vs. Lake Superior State
January 25, 5 p.m., at UMD
UMD vs. St. Cloud State
January 26, 3 p.m., at UMD
UMD vs. Wisconsin-Superior
January 30, 7 p.m., at UMD
Wisconsin-Eau Claire Invitational
February 2, 9 a.m., at Eau Claire

Women's Basketball

UMD vs. St. Scholastica
December 11, 7:30 p.m., at UMD
UMD vs. St. Cloud State
December 13, 7 p.m., at UMD
UMD vs. Lake Superior State
December 15, 1 p.m., at UMD
UMD vs. Michigan Tech
December 18, 5:30 p.m., at UMD
UMD vs. St. Cloud State
December 20, 7 p.m., at St. Cloud
UMD vs. Augustana College
December 29, 4 p.m., at Sioux Falls
UMD vs. South Dakota State
December 30, 3 p.m., at Brookings
UMD vs. Bemidji State
January 8, 7:30 p.m., at UMD
UMD vs. Winona State
January 10, 7:30 p.m., at UMD
UMD vs. Wisconsin-Parkside
January 12, 5 p.m., at UMD
UMD vs. Minnesota-Morris
January 18, 7:30 p.m., at Morris
UMD vs. Moorhead State
January 19, 3 p.m., at Moorhead
UMD vs. Southwest State
January 25, 7:30 p.m., at UMD
UMD vs. Northern State
January 26, 3 p.m., at UMD
UMD vs. Bemidji State
January 29, 7:30 p.m., at Bemidji
UMD vs. Winona State
February 1, 7:30 p.m., at Winona
UMD vs. Northern State
February 8, 7:30 p.m., at Aberdeen
UMD vs. Southwest State
February 9, 3 p.m., at Marshall
UMD vs. Moorhead State
February 15, 5:30 p.m., at UMD
UMD vs. Minnesota-Morris
February 16, 5:30 p.m., at UMD