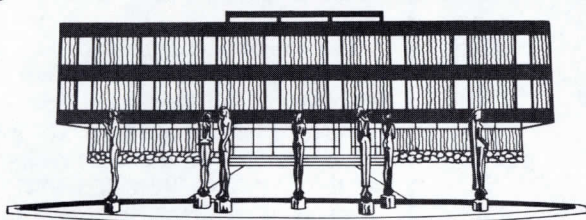


OAKLAND UNIVERSITY NEWS



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A publication for faculty, staff and friends

Corneal Research Leads to \$50,000 Award for Riley

Michael V. Riley has won a \$50,000 recognition award for pioneering work in understanding how the human cornea maintains the clarity needed for sight.

Riley is a professor of biomedical sciences in the Eye Research Institute and one of 12 scientists honored by the Alcon Research Institute of Fort Worth, Texas.

The professor was among the leaders in determining that cells in a thin membrane called the corneal endothelium act as tiny pumps that force excess water from the cornea (the window of the eye).

Riley explains that water flow in and out of the cornea is necessary to carry nutrients in and waste out, but a delicate balance must be maintained.

The researcher says that damage to these cell pumps from age, toxic damage or diseases like diabetes will cause the cornea to become cloudy; then light that tries to enter the eye will be scattered or diffused; and a corneal transplant operation may become necessary.

Riley has worked on the mechanisms of

corneal transparency and hydration for nearly 20 years. He has been a member of the Eye Research Institute since 1969 and has earned continuous funding from the National Eye Institute. For four years, he was a member of the NEI Vision Research Program Committee; and he is a past recipient of an NEI Career Development Award.

The Alcon Research Institute selects prominent ophthalmologists and vision-research scientists who have made important contributions to eye research. The winners will present reports on their work next March in Texas. Venkat N. Reddy, director of the Eye Research Institute, and Frank J. Giblin, associate professor of biomedical sciences in the institute, are past Alcon winners.

Riley is a native of England. He received his bachelor's and master's degrees from Cambridge University and his doctorate from Liverpool University.

— By Jim Llewellyn

Quartet Makes Fine Impression in Italy

Oakland's own Lafayette String Quartet put another feather in its cap with an impressive showing at a music competition in Italy.

Musicians Ann Elliott, Joanna Hood, Pamela Highbaugh and Sharon Stanis made it to the second round of the first Paolo Borciani International String Quartet Competition in Reggio Emilia, near Milan, Italy. The competition consisted of 21 string quartets from around the world, including four from the United States. Twelve quartets were eliminated in the first round.

The competition is held in memory of Borciani, who was first violin with the Quartetto Italiano. The judges ruled that because of the closeness of the four finalists, a first-place award could not be made. A Swiss

quartet captured second place and earned a cash prize and a concert tour.

The Lafayette's U.S. competitors were the Cavani, the Lark and the Alexander. The competition was valuable to the musicians in that it allowed them to mingle with other quartets, hear excellent playing and receive critical comments from distinguished jurors.

The university provided travel expenses for the LSQ. The quartet played on instruments made by contemporary instrument maker David Burgess of Shar Music in Ann Arbor.

This was the first international competition for the LSQ. The group hopes to compete in a competition next spring in Portsmouth, England.



The Music Man

F. James Clatworthy leads the way at the School of Human and Educational Services commencement on June 7. Five ceremonies were held during the day at Varner Recital Hall and Baldwin Pavilion. A record number of students were degree candidates.

Perfusion Degree Receives Approval

The university is offering a degree in perfusion technology in cooperation with PSICOR, Inc., a San Diego, CA, firm formerly located in Brighton.

Perfusion technologists primarily operate the heart-lung machines used in open heart surgery and other cardiac-support equipment.

The Board of Trustees on June 10 authorized the implementation of the program in the School of Health Sciences retroactive with the fall 1986 semester.

All coursework taken by students in PSICOR's certificate program in 1986-87 will be credited toward a degree in perfusion technology.

Number 1 First University Employee Wraps Up Career

Things were much simpler way back when.

George Karas and a handful of employees once moved buildings with the greatest of ease and cleared the woods in the dead of winter with dynamite.

It was a hands-on style that's hard to come by today.

The university engineer tells a story that North Foundation Hall, the first major building at the university, was supposed to be built on land where the third fairway of Katke-Cousins Golf Course exists today.

"We came out here on a Sunday afternoon and drove down to the site to look it over," Karas recalled. After looking at the land, the blueprints and each other, they made their decision. "In less than an hour we moved the building to where it is now."

Aside from earning the eternal gratitude of golfers, Karas' decision that day in the late 1950s changed the course of the university. Scouting the site revealed the university would be limited in expansion. Proximity to Meadow Brook Hall and the invasion of Matilda Wilson's privacy were other

major concerns.

Then there were the trees. To make way for Meadow Brook Music Festival, Karas and an 80-year-old gentleman blew stumps out of the frozen ground. Crude, as they say, but effective.

Thinking about those incidents while preparing to retire on July 31, Oakland's first employee deadpanned, "A lot of things happened that I don't think would happen today."

Karas has enjoyed a long career in public life, of which the university has only been one dimension. Karas, active in Rochester Hills government since 1959, is city council president.

Tracing Karas' career is nearly one and the same as recounting how OU came into being. Fresh from Michigan State University, where Karas earned a bachelor's degree in civil engineering and worked on a master's, he joined a Lansing-area construction company and also operated his own motel.

His college-days contacts paid off when he was recommended for the new engineer's position at what would become Michigan State University-

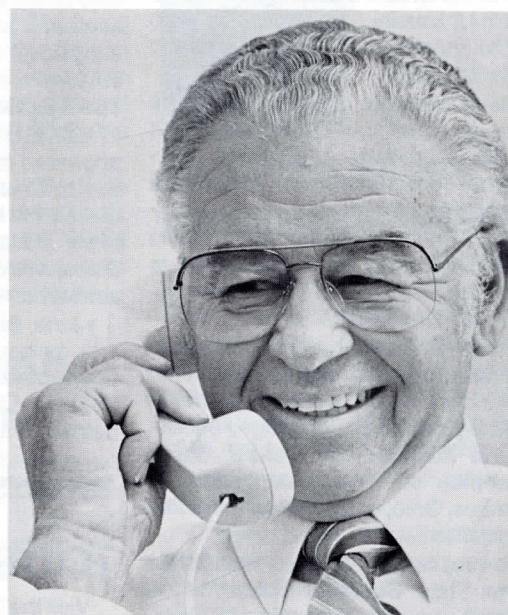
Oakland. Karas, however, did not recognize the importance of the job when he was interviewed.

"Prior to a Notre Dame-Michigan State football game, my wife and I were invited to Kellogg Center to meet Mr. and Mrs. Wilson and President (John) Hannah. I was interviewed for this little — what I considered insignificant — job, but it turned out to be the chance of a lifetime. I don't think anyone else has had the opportunity, just the tremendous job that I have had."

The opportunity turned into a 30-year career. "I guess I came down here with the idea of staying. When I made the move, I made it with the intention of staying forever."

Karas is pleased that the university has grown to benefit students. "I don't know if there is anything nicer than seeing the young people, the students," he said. "I can't think of a better environment to work in."

As someone involved in community government, Karas has had the unique opportunity to watch both the university and the municipality grow. He was encouraged to participate in



No one has been on the job longer than George Karas, university engineer.

local government by the chancellor to give the university a voice.

Karas noted the university has played an important role in the present economic boom in Rochester Hills. The decision to bring water and sewer lines to the university spurred growth throughout Avon Township (the forerunner of Rochester Hills) just as the Oakland Technology Park brought another wave of construction.

(Continued on page 2)

Unusual Art Goes on the Block

Meadow Brook Gallery Associates will sponsor its fund raiser, *Picnic on the Grass XV and Fabric Art Auction*, at 7 p.m. July 14 at Sunset Terrace.

Sixty Michigan artists were invited to participate in the picnic by donating their talent in designing kimonos, T-shirts and baskets, in addition to painted sheets.

Among the artists who responded were Glen Michaels, Charles Magee, John Glick, Herb Babcock, Richard Kozlow and *Detroit News* cartoonist Draper Hill.

Thirty selected pieces will be auctioned during the picnic by Frank Boos of Boos

Gallery in Birmingham. Warren Pierce of WJR radio will be master of ceremonies.

Art works will be displayed in the tent on the Meadow Brook Music Festival grounds July 12-13.

Tickets are \$75 per person and include cocktails, dinner and the auction. For details, call 370-3005.

Board Selects Dates

The Board of Trustees in 1987-88 will meet on August 12, September 9, October 14, November 11, December 9, January 13, February 10, March 9, April 13, May 11 and June 8.

knowing how he has helped the university, and in working with many employees to make projects possible. Toting up the value of projects Karas has been involved in shows a dollar amount in the tens of millions.

The precision of an engineer steps aside when it comes to retirement plans. Karas assures friends he will be busy, but specifics are hard to come by.

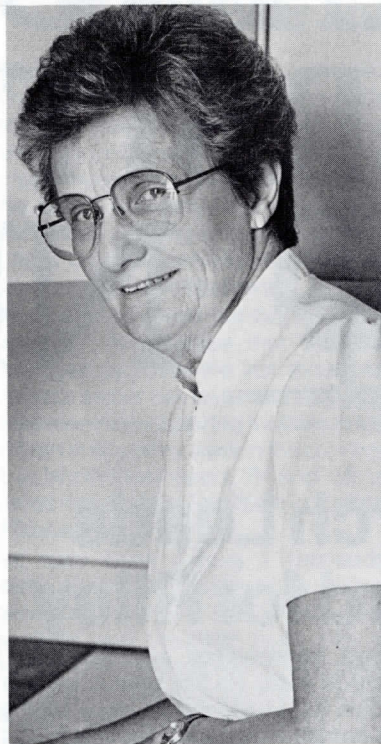
What he has planned is continued involvement in public affairs. He just accepted an advisory position with the Energy Initiative Advisory Committee of the Community Foundation for Southeastern Michigan and will continue with civic responsibilities.

Not too surprising for someone who walked the land with blueprints in his back pocket, shaping the future of a university.

— By Jay Jackson

Reception is July 29

A public reception to honor George Karas is scheduled from 3-5 p.m. July 29 in the Oakland Center Oakland Room.



Johnson Retires

Betty Johnson, R.N., helped thousands of students and staff get back on the road to good health during her 20 years with OU. "It makes me tired to count," she quipped. She first worked with two other nurses and a doctor where the Payroll Department is now in North Foundation Hall. Johnson retired from Graham Health Center on June 30. Her future includes enjoying a new home in North Carolina with husband Robert.

Students Selected for Special Studies

Two students have been chosen to travel and study in the Republic of China (Taiwan), and a third has been selected to conduct research with the Center for the Study of the Presidency.

Linda Adler and James Sharkey, Jr., will visit Taiwan; and Keith L. Faber will study in Philadelphia and Washington, D.C.

Adler, a junior majoring in Chinese, will spend the 1987-88 academic year in Taipei at the Mandarin Training Center of the National Taiwan Normal University. She was selected for a scholarship under the National Association of State Colleges and Universities/Taiwan Scholarship Program.

Sharkey will participate in the China Youth Corps and will spend July 8-August 6 studying and touring in Taiwan. He is a junior majoring in business with a minor in international studies.

Fifty additional students from other nations will also participate in the program sponsored by the Taiwan government and Chengchi University.

Faber will participate in the Center for the Study of the Presidency's Leadership Conference from November 13-15 in Philadelphia and in its Student Symposium next March 23-27 in Washington. Fellows were selected on the basis of character, leadership, scholastic attainment and service.

As part of his fellowship, Faber will write a major research paper concerning the presidency.

Stops in Taiwan, U.S. Capital on Agenda

Karas

(Continued from page 1)

When it comes to naming what specifically appealed to Karas about his job, he said it was "involvement in the design and implementation of a brand new university — a city! — of 12,000 on absolutely vacant pasture land. There aren't very many people in a lifetime who can go out and build a city, much less work at a university at the same time."

A more sophisticated university meant more complex systems under Karas' auspices. He is proud of such accomplishments as cost-reductions in heating and cooling bills that have saved OU millions of dollars since the 1970s. A pet project he hopes will be pursued is a cogeneration system to further reduce energy costs.

Where he has left his mark is where it is least visible to the public. Karas' work has been in the decisions that go into design and construction of buildings, the nuts-and-bolts side of things. His satisfaction comes in

Our People

Brief items may be submitted to the News Service, 104 NFH, by any employee. Publication is on a space-available basis.

•Catherine Lark, administration and risk management, has been named chairperson of the Michigan College and University Risk Management Officers Association.

•Egbert W. Henry, biological sciences, presented a lecture, *Hormones That Make Plants Grow*, and served as a panelist for the Science Institute, sponsored by the New York City Board of Education and held in Brooklyn. He has been awarded \$4,000 for the 1987 Minority High School Apprentice Program from the Howard University-Rockefeller Foundation (HUROC). Henry was a panelist at the HUROC conference on Life Science Careers for Minority High School Students in the United States. It was held at Howard University. The discussion topic was *The Importance of Early Exposure to Quality Research*.

•Glenn Jackson, engineering, is the author of *Relational Database Design with Microcomputer Applications*, published by Prentice Hall, Inc. The book will be available in November.

•Ka C. Cheok, electrical and systems engineering, received a fellowship to attend a short course on *Advanced Topics in Artificial Intelligence* at UCLA.

•Ronald F. Rapin, modern languages and literatures, has begun his second term as executive secretary/treasurer of the Michigan Foreign Language Association. He attended the Central States Conference of Foreign Languages in Columbus, Ohio, in April on behalf of that organization.

The results of a study commissioned by the State Board of Education on Foreign Language Education in Michigan schools, conducted and coauthored

by George Mansour and Rapin, were published in the spring *Newsletter of the Michigan Foreign Language Association*.

Rapin attended the Cincinnati Conference on Romance Languages at the University of Cincinnati and presented a paper, *Narrative Structure in the New York Poetry of Federico Garcia Lorca*.

Rapin's article, *The Phantom Pages of Luis Martin Santos' 'Tiempo de silencio'*, appeared in *Neophilologus*.

•Robert Eberwein, English, chaired a panel, *Current Critical Discourse and Adaptation*, at the meeting of the Society for Cinema Studies in Montreal. He presented a paper, *Adaptation: A Psychoanalytic Model*.

•Bruce Mann, English, spoke on Ernest Hemingway's *Nick Adams Stories* to a group at the Avon Towers senior citizen apartment complex as part of the Rochester Hills Public Library's *Let's Talk About Michigan* series.

•Ronald A. Sudol, rhetoric, communications and journalism, spent a week evaluating Advanced Placement exams in English in Lawrenceville, N.J. Over 250,000 exams in 16 subject areas were evaluated.

•David Daniels, music, theatre and dance, appeared as guest conductor with the Fort Street Chorale and Chamber Orchestra of Detroit. He led a performance of the Bach *B Minor Mass*. Soprano soloist was Doralene Davis, wife of former OU faculty member and assistant provost James Davis.

•Jane Bingham, reading and language arts, gave a slide presentation on the history of childhood and books for children to the Oakland County Genealogical Society at Baldwin Public Library in Birmingham.

Jobs

Visit the Employee Relations Department, 140 NFH, for details about job postings.

•Cardiac rehabilitation assistant, C-6; medical assistant, C-6; and medical director, miscellaneous; Meadow Brook Health Enhancement Institute.

•Clerk II, C-4, Office of Admissions and Scholarships.

•Clerk II, C-4, Office of the Registrar, records.

•Library technician I, C-6, Kresge Library, hot line.

•Museum attendant I, miscellaneous, Meadow Brook Hall.

For Your Benefit

TIAA-CREF has announced that new quarterly annuity reports have been sent to 900,000 participants in the premium-paying stage.

Chairman and Chief Executive Officer Clifton R. Wharton, Jr., said, "This new personalized reporting provides greater service to participants through more timely and much more detailed information about their TIAA and CREF annuities."

The quarterly reports give a comprehensive accounting of all annuity transactions occurring each quarter, including premiums paid, their allocation between the TIAA fixed-dollar and CREF equity portfolios, and transfers from CREF to TIAA. The reports also show the amount of the participant's annuity accumulation at the beginning and close of each quarter, TIAA interest credited and the number and value of CREF accumulation

units purchased.

Participants will receive a separate quarterly report for each set of TIAA-CREF annuities they own. The mailing of the new reports for the first quarter of 1987 took place as extensive data-based systems for this program became operational. Future reports will be issued shortly after the close of each calendar quarter.

Wharton noted the introduction of quarterly annuity reports is one of the changes being implemented. The pension system is making innovations in its administrative operations preparatory to the introduction of enhanced services and new products for participants.

This column is provided by Pam Beemer, staff benefits manager.

New Faces

Additions to and changes within the university staff have been announced by the Employee Relations Department.

•Sandra Chinia of Oxford, secretary I at Katke-Cousins Golf Course.

•Linda Eberlein of Rochester Hills, clerk II in Oakland Center Operations.

•Eleanor Gettings of Rochester, clerk-receptionist II in the Office of the President.

•Robyn Johnston of Clarkston, coordinator of architectural services in Campus Facilities and Operations.

•Kathy Lieberman of Rochester Hills, laboratory research technician II in the Department of Biological Sciences.

•Michael Mancini of Royal Oak, laboratory research technician I in the Department of Biological Sciences.

•Gina Pattison of Rochester, secretary II in the School of Nursing.

•Teresa Rix of Rochester Hills, clerk II in the Office of Admissions and Scholarships.

•James Spittle of Royal Oak, assistant to the general director and state tour director of Meadow Brook Theatre.

•Thomas Vinson, Jr., experimental machinist in the Department of Chemistry.

United Way at Work

Growing up can be tough on kids. It is also much tougher if they don't get sufficient companionship and guidance from an important adult relationship.

Big Brothers/Big Sisters, Inc., provides a long-term friendship to children between the ages of 8 and 17. These children are primarily from single-parent families and in need of one-to-one, positive interaction with a caring adult. There are over 100,000 such kids in the tri-county area.

Boys and girls may be referred to the program if they exhibit inappropriate behavior,

such as performing below their potential in school, or withdrawing from contact with adults or other children. These are the beginning signs of more serious problems later.

Thanks to your contributions to United Way of Pontiac-North Oakland, Big Brothers/Big Sisters, Inc., can provide services to many children in the area.

For information, contact your United Way at Work representative or Big Brothers/Big Sisters at 569-0600.

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•James Llewellyn, senior editor and news director

•Jay Jackson, staff writer

•Rick Smith, photographer



Colleen Ochoa at the office of U.S. Representative Bob Carr.

Unexpected Success

For Someone Who Almost Didn't Attend College, It's Been Rewarding

An OU senior is earning national recognition as she patterns her life after the role models who influenced her to go on to college.

Colleen Ochoa, 21, will be cited in the July issue of *Good Housekeeping* magazine in its salute to *100 Women of Promise, The Class of '87*.

Earlier this spring, Ochoa was selected for an Outstanding Student Award by the Michigan Association of Governing Boards. She was a finalist for the Matilda R. Wilson Award for outstanding senior.

Ochoa says that frankly, she wasn't even considering going on to college until she was influenced by "Mr. Willis Garratt, my biology teacher, and principal James Fry" at Waterford Kettering High School.

Ochoa says she hopes to repay those role models and others she has found at Oakland University by going on to graduate school in some area of student affairs or educational administration. She is awaiting word on graduate school with top choices being Kent State University and Boston University. She would then like to lobby on behalf of education in Washington, D.C.

The communications major is a constituent service representative in the Pontiac office of U.S. Representative Bob Carr. She was chosen by *Good Housekeeping* magazine in a national search to find senior women who combined grade point average, campus and community involvement, and outstanding personal endeavor.

Ochoa is one of four Michigan students cited in the story. The finalists were selected by a national panel of educators. The other Michigan students attend the University of Michigan and Hope and Adrian colleges.

"I am really, really happy to have been chosen by the magazine," Ochoa says. "I was very honored and surprised that OU nominated me, and I hope the award brings some recognition to the university as well."

Ochoa says her career goals would allow her to combine interests in politics, education and communication. Her one-year stint with Congressman Carr was of special interest because she says he "has done a lot of good for education."

Ochoa had worked in the Carr campaign as well, helping coordinate volunteers.

It was in the early 1980s when millage defeats were hurting education that Ochoa,

then a Kettering High School student, and her mother, Kathleen, decided to become more involved in the political and lobbying processes. Ochoa became student representative working with the school board; there was booster club involvement, and campaigning among the citizens in the community. She says the work paid off in 1983 when a millage did pass.

Today, Ochoa says, there is an organization in Waterford called For Our Children's Benefit. It springs into action when a millage or other important school issues are in question. Ochoa still takes interest in Waterford education and notes that her sister Christine is in the eighth grade at Pierce Junior High School.

"I am now volunteering to do some work in the Clarkston area as well," Ochoa says, because "education is so important."

Her many activities at OU include serving

'I was very honored and surprised that OU nominated me and I hope the award brings some recognition to the university as well.'

as past chairperson of the Student Program Board, service on University Congress (the student government), membership on the Student Life Lecture Board, member of the OU 25th Anniversary Publicity and Planning Committee, and a member of the University Senate's Admissions and Financial Aid Committee.

Ochoa says college was possible only through a combination of scholarships and jobs. She cites Wilma Ray-Bledsoe, vice president for student affairs, and Dean of Students David Herman, as being particularly helpful. She says that "all the way down the line I have met people who have influenced my life and have been good mentors."

Ochoa says, "You know, I might even end up back here one day, lobbying for OU."

Ochoa continues to reside at home with her sister and her parents, Kathleen and Raul.

— By Jim Llewellyn

Two Faculty Members Win Alumni Advising Awards

Robert T. Eberwein, English, and Carl R. Osthaus, history, have each received \$500 as winners of the Alumni Association Outstanding Advising Awards.

The faculty members were recognized at the June 7 commencement for "their willingness over the years to go the extra mile in

advising and assisting their students."

Eberwein has been at OU since 1969 and has served as chairperson of the Department of English since 1982. Osthaus came to OU in 1970 and is chief academic adviser for the Department of History.

The awards have been presented since

1980 with funding provided by the Alumni Association and its Arts and Sciences Affiliate.

Recipients were selected by a committee consisting of Sheldon Appleton, associate dean of the College of Arts and Sciences; David Jaymes, chairperson of the Department of Modern Languages and Literatures and one of the honorees from last year; and two alumni representatives: Jeff Boss and Linda Nicholson.

Nominations for next year's award may be submitted anytime to the Office of the Dean, College of Arts and Sciences, 207 Varner Hall. Any member of the university community is welcome to submit a nomination.

Memorials Honor Dicron Tafrahan

Friends of the late Dicron Tafrahan may contribute to a scholarship fund in his name.

Mr. Tafrahan, 63, died May 30, of complications from amyotrophic lateral sclerosis, commonly known as Lou Gehrig's disease.

Mr. Tafrahan retired in 1984 after working for the university for 16 years. His associates admired him for continuing to work, despite the progressive worsening of his condition. Mr. Tafrahan maintained a positive outlook and was inspirational to others. In Novi, where he made his home, Mr. Tafrahan was active in civic affairs.

Mr. Tafrahan is survived by his widow, Sue, an office assistant at Meadow Brook Hall; two sons; two daughters; a brother; and three grandchildren.

Contributions to the Dicron Tafrahan Scholarship may be sent to the Gift Accounting Office, 104J NFH.



Vicky Hunt

Hunt Receives Employee Award

Vicky Hunt, budget analyst in the Office of Budget and Financial Planning, received the Employee Recognition Award for June.

Hunt started as a clerical accounting assistant in December 1977. She was promoted to senior clerical accounting assistant in December 1978, and in September 1984, she accepted her present position.

The review committee relied on such statements as:

• "Vicky is an extraordinary achiever; (she) is action-oriented and sees something to be done and does it."

• "She promotes team spirit among her coworkers and pitches in to help coworkers meet deadlines and finish projects, regardless of extra time and effort."

• "Vicky's well-developed analytical skills contribute to high performance."

• "Vicky participates in community activities, including the Concours d'Elegance and the Rochester Area United Fund, and is an active (and vocal) fan of Oakland University's basketball teams."

Nomination forms are available in all departments, from CIPO and from the Employee Relations Department. Call 370-3476.

Students Earn SBA Awards

The School of Business Administration cited three students at commencement exercises June 7.

William C. Thomas and Judith R. Zelenak won the Outstanding Male and Female Student Awards. Jack DiFranco received the Wall Street Journal Award.

Douglas Ross, director of the Michigan Department of Commerce, delivered the commencement address on *Michigan's Economic Future: Is There a Place for You?*

Thomas graduated with a major in quantitative methods, an A average and the Alpha

Kappa Psi Scholarship Key. Zelenak also maintained an A average, majored in economics and earned outstanding evaluations from American Motors where she was a co-op student. The awards are given annually in cooperation with the school's alumni affiliate.

DiFranco's Wall Street Journal Award is given annually to the student who exhibits academic leadership, scholarship and achievements within the SBA. He majored in finance.

Downing Takes Added Assignment

David J. Downing, associate professor of mathematical sciences, has been named acting associate dean of the College of Arts and Sciences.

Dean Brian P. Copenhagen says Downing replaces Sheldon Appleton, who has been appointed acting associate provost in the office of Keith R. Kleckner, senior vice

president for university affairs and provost.

Appleton's first assignment will be to coordinate needed planning for a North Central Association accreditation visit. Documents will be presented to North Central in September 1988, and a site visit will be made by the accreditation team within several months of the filing of the report.

Admissions to Close on July 15

The Office of Admissions has announced that admissions for the fall semester will close on July 15.

The following must be received by that date for consideration: completed application, \$20 processing fee and all official transcripts.

For further information, call the Office of Admissions and Scholarships at 370-3360.

'Michigan's Economic Future — Is There a Place for You?'

Michigan Department of Commerce Director Doug Ross spoke to graduates at the School of Business Administration commencement ceremony on June 7. Here are portions of his remarks.

Is there a place for you in the Michigan economy? Is this going to be a good place to find a job, to build a career or to build your own business?

It is certainly an appropriate question to raise on the day you receive your diploma and set out to create your own future. Frankly, that is the same question this government asked itself in this state about four years ago and without a very clear idea of whether we could answer that question positively for you.

What the governor at that point did was ask a group of economists from all the major universities all over the state to get together, and they ended up spending nearly a year early in the administration taking a hard look, doing an economic analysis.... They found three basic things:

Number 1 — That despite a lot of the talk about a service economy and the undeniable increasing importance of services and professions, the engine that still drove Michigan's economy was an industrial engine....

Number 2 — That in nearly every part of our manufacturing economy — auto, steel, chemicals, pharmaceuticals, you name it — since the late '60s we have been losing our market share, initially to some states in the South and then increasingly overseas.

The third thing we discovered, and this turned out to be the key, is we were no longer able, along with the rest of the Midwest, to compete in making things or providing services that involved large amounts of unskilled labor....

Three strategic alternatives presented themselves with three ways to deal with those realities. The first was we could stop all that loss of jobs out of Michigan to first the Sunbelt and then overseas if we were willing to "get poor." In other words if we were willing to drop our wages first to Sunbelt levels and then to third-world levels, no problem. There would be no reason for anyone to take those unskilled manufacturing jobs out of Michigan and the Midwest....

In fact, they said, we are coming to this great historic fork in the road and on one path is manufacturing, and that's third world... because they have unlimited amounts of inexpensive unskilled labor.

The other path they said, the one for us, the one for America, the one for Michigan, was information processing: computers, Silicon Valley, Route 128 in Boston. That, they said, is the future; go that way....

Just when we were getting pretty perplexed, we saw a third way.... What was happening was rather than being at this historic fork in the road, we found we were at a convergence, an unexpected convergence, where the mechanical technologies which we had done so well, which are really, after all, just extensions of our arms, our muscles, were being married to or integrated with the information-processing tech-

nologies which are extensions of our brain.

This new combination was more than just a kind of chrome-plating of the smokestack. It was a revolutionary new way of making things that held out the opportunity, not the guarantee, but the opportunity that a community like Michigan could continue in its business of making things for the world and compete with places like Mexico and Brazil and Korea and Taiwan that had taken our old mass-production methods and were paying people a dollar an hour instead of \$10 an hour.

There was a third alternative to getting poor and getting out, and getting smart was that alternative. The problem was, as we looked at it, there were two big obstacles.

Number 1, we had a lot of very tough, determined opponents, competition: the Japanese, the West Germans, the northern Italians, the Swedes, the French. They were all getting into the same business, they all recognized this new economic frontier.

The second obstacle...is that using these new technologies that are being developed productively means doing things, doing business in an entirely different way in a revolutionary different way....

The old mass production system that made Michigan rich and is the basis for many of the corporations around us, many of which may be recruiting you, was that we could set up a system of machines that were fixed, they weren't flexible. You set them up, they did one thing, and one thing only. You could run thousands or even millions of exactly the same product with consistent quality, low costs, and use unskilled labor.

The new technology is flexible. You can run a few of something, and then by reprogramming each of the machines, you can change its behavior and run something else. So you can start customizing for each customer exactly what they want. Now why can't the Mexicans and the Koreans and the Singapore folks do that? Because to do that you require skilled people who understand the technology, understand the new problems to be solved and can continue to work with the technology to change it to produce what's needed.

That takes skills and that, at least for the time being, is our advantage, our niche, our place. We in Michigan decided that's where our future lay, by figuring out how to compete at that new manufacturing frontier. With a public and private cooperative partnership we started investing in centers of research excellence....

We decided we had to be the place, and you are sitting at this university, this university is a key part of it....

We decided we had to have the most skilled work force, the most skilled people in the United States and in the world to do this. We have increased our funding for higher education — this university by 50 percent over the last four years. We have created a strategic fund to begin investing in new private capital institutions that will provide the high-risk capital that entrepreneurs like some of you are going to need to take these new technologies and turn them into new

businesses....

The results have been astonishing. Over the last four years, net — that's after you take all the new jobs created and eliminate any jobs lost — we have added 400,000 new jobs to this state's economy. That makes us one of the fastest growing in the United States. We have cut our unemployment rate from 17.3 percent down to 8 percent.

We have to do better, but that is a tremendous jump. Two figures that I am very encouraged by: Over the last three years, the private sector has invested more dollars to build new manufacturing facilities in Michigan than in any other state in the country. In fact, in two of those years, '84 and '85, they invested more in Michigan than in California and Texas combined.

We have been getting a tremendous amount of entrepreneurial activity. This new economy will only work if people take these new ideas and translate them into new business. Over the past three years, we have set records for new business starts, 27,000. This past year, according to Dunn & Bradstreet, now makes Michigan the entrepreneurial hot spot, the new business hot spot, of Mid-America.

Let's get back to you. Now what does that all mean for you, as people graduating from business school, as men and women who want to go into the business world? I think it means three things.

Number 1 — What was often called paper entrepreneurialism, the thing that business school students in the past were trained to do is no longer relevant. By paper entrepre-

neurialism, I mean going to work for a company and helping them increase their profits through basically paper manipulation....

What's needed now are not more bean counters but people who are interested in the products, in the customers, in the marketing, in actually getting their hands on the goods and service that is being sold because we've got competitors who believe in producing the best and we've got to be better....

Secondly, as business leaders you are going to have to become psychologists. You are going to have to focus very heavily on human behavior because the new technology doesn't allow for the old pyramid structure where the person at the top simply gave orders to the next person down and so on and so on.... The challenge is to get people involved, to make them participants, and that is going to be your job, and we don't know how to do that that well....

Thirdly, because success with the new technologies and the new ideas depends on innovation and flexibility, large bureaucratic corporations are in trouble. They were organized for the last phase of the industrial revolution, not the new one....

So finally, is there a place for you in this merging Michigan economy? You bet there is because this state, despite chance, by history, is at this frontier. It's where all the new action in America is going to occur if we are going to be successful.

Mime Ensemble Hits the Road

The Mime Ensemble, directed by T. Andrew Aston of the Department of Music, Theatre and Dance, received invitations to two prestigious events.

The first was at the world finals for the Odyssey of the Mind at Central Michigan University on May 29. The ensemble performed selections from its award-winning production of *Jerrig*, which was first performed at the Kennedy Center for the Performing Arts in Washington, D.C., in 1981.

The second significant event will be an appearance at the premiere Michigan Festival for the Arts on the Michigan State University campus. This event will feature the ensemble at two main-stage performances and roving throughout the day on August 28 for street interaction.

The Mime Ensemble concludes this season's run of *The Dingleberry Circus* with three performances for the Berkley Area Arts Commission. For 1987-88, the ensemble

will take the circus on tour throughout Michigan school systems.

Other notable appearances for the Mime Ensemble are a visit for the third year to Holland's Liberty Festival, a second-year invitation to the Southfield Arts Festival, and an initial invitation to the Heritage Festival at Spring Lake.

For the fifth year, the Mime Ensemble will return to the Michigan Renaissance Festival. The seven-week run begins the third week in August.

MBHEI to Hire Medical Director

Programs at the Meadow Brook Health Enhancement Institute have grown large enough to require the service of a full-time medical director.

The Board of Trustees authorized the position June 10.

The medical director's duties will include supervising the medical aspects of the health maintenance/health improvement program, supervising residents and interns working in programs within the institute and providing consultations and evaluations.

University officials say the director will support the education and training of students from the School of Health Sciences. Funds generated by the institute will pay the director's salary.

Will Also Support Health Sciences Students

Jackson Cited as Outstanding

Osa Jackson of the School of Health Sciences has been cited as an Outstanding Young Woman of America for 1986.

Jackson is associate professor and director of the Physical Therapy Program. She is also chairperson of the Department of Kinesiological Sciences (exercise science and physical therapy). She was nominated for the award by Ann Pascascio, past dean of the School of Health Sciences at the University of Pittsburgh.

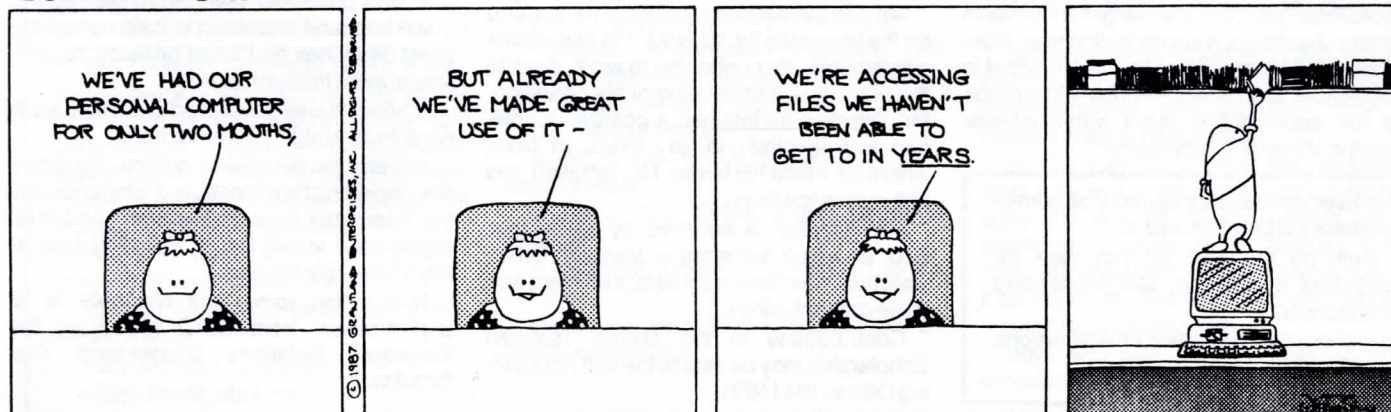
Jackson is a University of Michigan graduate with a degree in physical therapy. While working as a physical therapist at U-M, she received a master's degree in educational

administration. In 1979 she received her doctorate in educational gerontology. Jackson engaged in a four-year, post-doctoral training program to become a certified Feldenkrais Practitioner.

Publications by Jackson include a recently released textbook, *Considerations for the Elderly* published by Churchill Livingstone.

Jackson lectures nationally and internationally and is a regularly invited guest of the Norwegian Physical Therapy Association and the Australian Physical Therapy Association.

GRANTLAND®



Events

CULTURAL

July 6-31 — Classes in the arts for talented youngsters. Sponsored by the Center for the Arts and the Academy for the Gifted and Talented of Michigan. Call 370-3018.

July 14 — Meadow Brook Gallery Associates sponsors *Picnic on the Grass XV and Fabric Art Auction* at 7 p.m. at Sunset Terrace. Admission includes cocktails, dinner and the auction. Call 370-3005.

Meadow Brook Music Festival — A raft of entertainers come to the festival this month. The schedule has the Detroit Symphony Orchestra, July 9; James Galway with The Chieftains, July 10; DSO, July 12; Spyro Gyra, July 13; Boston Pops on Tour, July 15; Academy of St. Martin-in-the-Fields, July 18-19; DSO, July 23; Johnny Mathis and Henry Mancini, July 24; Detroit Symphony Pops, July 25; DSO, July 26; Wayne Newton, July 27; Festival Women's Fashion Show at Shotwell-Gustafson Pavilion, July 29; DSO, July 30; and Preservation Hall Jazz Band, July 31. Call 370-2010.

COURSES

Jazz dance workshops sponsored by the Department of Music, Theatre and Dance and the Center for the Arts. Workshops are scheduled for July 6-17 and 20-31, and August 3-14. Call 370-3018.

The Division of Continuing Education offers classes. Call 370-3120.

The Continuum Center has workshops and seminars. Call 370-3033.

ETCETERA

Summer Patio Series — Musical programs sponsored by CIPO and Student Activities Board on the Oakland Center patio, noon-1 p.m. Remaining programs are Kathleen Holleran, music from Japan, July 8; Melchor Huerta, music from Mexico, July 15; and Ralph Mannisto, music from Scandinavia and Germany, July 22. Programs are held in the Iron Kettle on those rare rainy days.

July and August — Summer Tea Room is open for lunch at Meadow Brook Hall, 11:30 a.m.-3 p.m. Monday-Friday.

ATHLETICS

The Educators softball team plays at Suburban Softball fields in Auburn Hills. Team is composed of gifted staff athletes. Call Paul Franklin at 370-2020.

July 20 — 12th annual Alumni Golf Outing, Katke-Cousins Golf Course. Call 370-2158.

TOURS

Sundays — Meadow Brook Hall is open for tours from 10 a.m.-5 p.m. Monday-Saturday and from 1-5 p.m. Sunday. Knole Cottage is also open. Admission. Call 370-3140.